Chapter 3
Dynamic Indicators of Basic Early Literacy Skills

3.1 Introduction

There is no doubt that all levels of the South African education system consider the academic achievement of our country's children of the utmost importance. Each day the public is continually reminded of this through newspapers, radio, and television reports describing the adequacy or inadequacy of educational policy and practices. Certainly, reading achievement is among the most important of educational goals for this nation's children. Understanding that the foundation of a child's future reading success is often determined before leaving Grade 3 (Juel, 1988), the continual assessment of component literacy skills beginning when children enter pre-school, has become increasingly popular and prevalent in today's schools. The National Research Council (1998) indicated that assessment systems that can identify reading difficulties early and prevent later reading failure need to be in place. Good, Simmons, and Smith (1998, p. 46) state that assessment procedures are needed to "(a) identify children early who are experiencing difficulty acquiring early literacy skills, (b) contribute to the effectiveness of interventions by providing ongoing feedback to teachers, parents, and learners, (c) evaluate the effectiveness of interventions for individual learners, (d) determine when learner progress is adequate and further intervention is not necessary, and (f) evaluate the overall effectiveness of early intervention efforts".

Reading difficulties and early literacy deficits in children have far reaching implications for children, their families, and society. Reading difficulties are as virulent as any virus that courses throughout tissues and organs because this problem can infiltrate every aspect of a child's life. Teachers have the opportunity through early assessment and identification of literacy skill deficits to provide needed interventions to children at risk for reading difficulties (Shaywitz, 2003). The earlier interventions can be implemented the greater is the chance that low reading trajectories can be modified to result in positive reading achievement (Good, Simmons, & Kame'enui, 2001; Good, Simmons, & Smith, 1998; Shaywitz, 2003). Research indicates that the earlier learners at risk for reading

failure are identified, the greater the chances of decreasing the effects of the failure and getting them back on track (Bursuck & Damer, 2007; Hintze, Ryan, & Stoner, 2003; Strickland, 2002). The challenge continues to be in the area of how to achieve sustained implementation of this research into practice.

One example of a comprehensive assessment system designed to assess the key foundational skills of early literacy for young learners, in order to identify learners at risk for reading failure and to make sure they are on track, is the *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) (Good & Kaminski, 2003). "DIBELS measures, by design, are *indicators* of each of the Basic Early Literacy Skills and is one of the best early literacy assessment instruments available today" (Hall, 2012, p. 20).

The purpose of this chapter is firstly to provide a rationale for the use of DIBELS Next measures, secondly to describe the link between the DIBELS measures and the basic early literacy skills, thirdly the core administrative features of the DIBELS measures are presented to provide the reader with an overview of the importance of standardized assessment administration procedures, and lastly, a detailed discussion is included how teachers should analyse a DIBELS scoring Booklet in order to obtain data that can be used to make instructional as well as support decisions.

3.2 Rationale for using DIBELS[1]

A dynamic, prevention oriented, school based assessment and intervention system intended to monitor the growth and development of children on a continuum of foundational reading skills is necessary to prevent reading failure and ensure academic success for all learners (Good, Simmons, Kame'enui, 2001; Hintze, Ryan, & Stoner, 2003). A prevention-oriented, school based system of assessment is effective as it demonstrates the criteria of reliability by adherence to the following: (a) measurement of growth or foundational reading skills on a frequent and ongoing basis; (b) prediction of success or failure on criterion measures of performance (high-stakes tests); and (c) provision of an instructional goal when attained, will prevent reading failure and promote reading success (Good, Simmons, & Kame'enui, 2001; Good, Simmons, & Smith, 1998; Kaminski & Good, 1996).

[1] The acronym DIBELS is used throughout the thesis and it refers to DIBELS Next; the new assessment developed to assess the Dynamic Indicators of Basic Early Literacy Skills. DIBELS Next is copyrighted by Dynamic Measurement Group.

However, DIBELS are not true CBM materials, yet they were designed to provide supplemental formative information to the summative assessment that is already completed at the end of the year (for example the ANA's). DIBELS supply data throughout the duration of the school year to identify learners at risk of learning difficulties as early as possible. DIBELS do not meet the criteria for curriculum-based measurement because they were not created based on the local curriculum.

Research conducted by Powell-Smith and Bradley-Klug (2001) provides evidence that testing material used for performance assessment does not necessarily have to be drawn from the local curriculum. The Web-based data management system of DIBELS enable the formation of national norms. The above-mentioned research suggests that the use of "generic" probes such as DIBELS can also provide the needed information to monitor learner performance and progress in reading over time. Madelaine and Wheldall (2004) provide further evidence for this position by arguing that generic CBM materials are just as reliable and valid and have a number of advantages over passages taken directly from the curriculum. One of the advantages of measures that are curriculum independent is that they ensure that learner achievement is assessed equitably regardless of curriculum differences among teachers and schools, and/or changes in curriculum over time. A shift to standardized probes and administration also ensures that all test takers are given a fair and comparable opportunity to perform in the areas being tested by utilizing consistency, accuracy, meaningfulness, and fairness (Dykeman, 2006).

DIBELS has been developed to identify learners who are not attaining progress in the acquisition of critical early literacy skills. In addition, DIBELS measures can be administered frequently to monitor and evaluate intervention efficiency and learner development in early literacy skill acquisition. DIBELS was developed to provide assistance in formulating educational decisions in a problem solving model of assessment to determine: (a) which learners required early literacy skills interventions beyond that offered in the general curriculum, (b) which interventions effectively resolved early literacy skill deficits for each child, and (c) when interventions have proven successful in remediating early literacy skill deficits to reduce the risk of reading failure. DIBELS are capable of assessing learner skills on an ongoing basis in critical foundational literacy skills (Good, Simmons, Kame'enui, Kaminski, & Wallin, 2002;

Good, Simmons, & Smith, 1998; Good, Wallin, Simmons, Kame'enui, & Kaminski, 2002).

Research indicates that DIBELS is a valid assessment for accurate identification of learners' reading difficulties and instructional needs and is a particularly valuable tool in a problem-solving model in which learners' deficits can be remedied before they fall significantly behind their peers (Good, Kaminski, Simmons, & Kame'enui, 2001). DIBELS is one of a few empirically validated standardized reading assessments that are available for widespread progress monitoring (Kame'enui, Fuchs, Francis, Good, O'Connor, Simmons, & Torgesen, 2006).

There is a growing body of evidence from technical reports supporting DIBELS as a progress monitoring assessment. Correlations of .65–.80 were found between DIBELS and several other assessments of reading (Barger, 2003; Buck & Torgesen, 2003; Good, Simmons, & Kame'enui, 2001; Shaw & Shaw, 2002; Van der Meer, Lentz, & Stollar, 2005; Wilson, 2005).

In 2001, researchers at the University of Oregon (Good et al., 2001) reported the results of a linked longitudinal study exploring the predictive validity of the DIBELS early literacy skills subtests (e.g., Phoneme Segmentation [PSF] and Nonsense Word Fluency [NWF]) and oral reading fluency subtest (DORF) on the learners' later DIBELS achievement and third grade reading competence on the Oregon Statewide Achievement Test (OSA). Within year analyses compared 353 kindergarten learners' winter to spring DIBELS achievement; 378 first graders' winter to spring DIBELS achievement; and 364 third graders' spring DIBELS to spring OSA achievement during the 2000 school year. Results indicated that 91% of the kindergarteners who reached PSF goals in January also met PSF goals in the spring (r=.34). Moreover, 90% of the first grade learners who reached NWF benchmark goals in the winter met DORF benchmark goals in the spring (r=.78). Finally, 96% of the third grade learners who achieved proficient fluency rates on the Spring DORF also exceeded expectations on the reading subtests of the OSA.

Cross-year analyses compared 302 kindergarteners' spring DIBELS (1999) performance to their later winter DIBELS (2000) performance in first grade and 342 first graders' spring DIBELS (1999) performance to their later spring DIBELS performance in second grade (2000). Results revealed that 55% of the kindergarten participants who

reached the DIBELS PSF benchmark in the Fall of 1999 also reached NWF benchmark goals in 1st grade in the winter of 2000 (r=.38). Moreover, 97% of the first graders who met end-of-year DORF benchmarks in 1999 later met second grade Spring DORF benchmarks one year later (r=.82). The authors concluded those successful within-year and cross-year outcomes indicated that if a learner reaches benchmark on each DIBELS subtest, "the odds are in his/her favour" for successfully meeting subsequent benchmarks and future reading goals. Those results yield positive evidence to support the predictive power of DIBELS and its use as an early screening tool.

Over 8,200 schools, across 2,600 school districts in 49 states and Canada utilize DIBELS as their primary tool to assess learners (University of Oregon Center of Teaching and Learning, 2008). More than 1.7 million learners in kindergarten through grade three are assessed using this set of tests (Goodman, 2006; Manzo, 2005). Teachers use DIBELS to evaluate learners' progress based on the five main concepts of early literacy development: phonological awareness, alphabetic principle, accuracy and fluency with connected text, vocabulary, and comprehension (Elliott, Huai, & Roach, 2007; Goodman, 2006; National Institute for Literacy, 2009; Tierney & Thome, 2006; United States Government Accountability Office, 2007; University of Oregon Center on Teaching and Learning, 2008).

A powerful component in using DIBELS measures was the recognition that DIBELS measures were developed as *indicators, indicators* which primarily surrounded the identification of basic early literacy skill deficits and focused on the prevention of future reading failure through early identification and intervention practices. DIBELS has not been intended to be an exhaustive evaluation of all important reading skill areas for developing readers, but a fast and efficient indication of the acquired proficiencies of learners with respect to important developmental skills. Low performance demonstrates a concern pertinent to the child's progress (Kaminski & Good, 1996).

DIBELS is designed to be an efficient, cost-effective tool to help make decisions about reading instruction, to help the teacher provide support early and to prevent the occurrence of later reading difficulties. *DIBELS* assesses *basic early literacy skills*, or the essential skills that every child must master to become a proficient reader (National Reading Panel, 2000; National Research Council, 1998).

3.3 DIBELS and basic early literacy skills

According to Good, Kaminski, Dewey, Wallin, Powell-Smith, and Latimer (2013), DIBELS measures are sensitive to growth in child performance and to effects of intervention over relatively short intervals of time. This is an important point and a major point of difference between DIBELS and many other assessment tools currently in use. Most assessments were designed to be administered at a single point in time, (e.g., at the beginning or end of the year to identify children who don't have certain skills). According to Fuchs and Fuchs (2002), many assessments take too long to administer for them to be used every week or month. Even if it were possible to administer them weekly, teachers might not be able to document change because those assessments were not designed to detect small changes over short periods of time.

For example, it is possible to look at the rate of growth, or trajectory, for learners with different levels of number of words correct per minute at the beginning of grade 2. In Figure 3.1 the performance of 17 learners in the middle performing group and 19 in the low performing group is shown across second grade.

It is clear that where learners start the year predicts where learners end the year. The learners in the middle group show more growth by the end of the year, and by the end of the year, the learners in the low group are reading about as well as the learners in the middle group did at the beginning of the year (Fuchs, Fuchs, Karns, Hamlett, Katzaroff, & Dutka, 1997). It is clear that no learner in the low group caught up to the middle group by the end of the year.

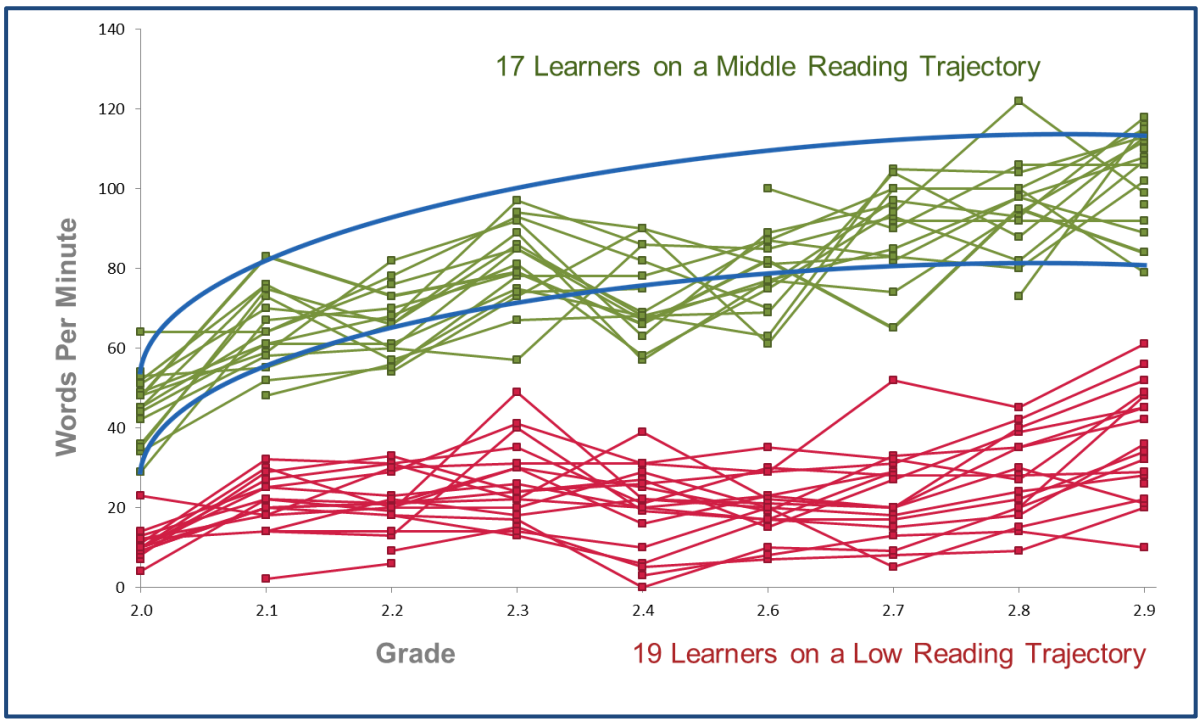


Figure 3.1: Middle and Low Trajectories of Grade 2 Readers (Good, Simmons, & Smith, 1998, p. 46).

Figure 3.2 shows words correct per minute for the same learners as they move from grade 1 to grade 6. The red line depicts the average performance of children in the bottom 10% of learners. The green line represents the average performance of learners in the middle 10%.

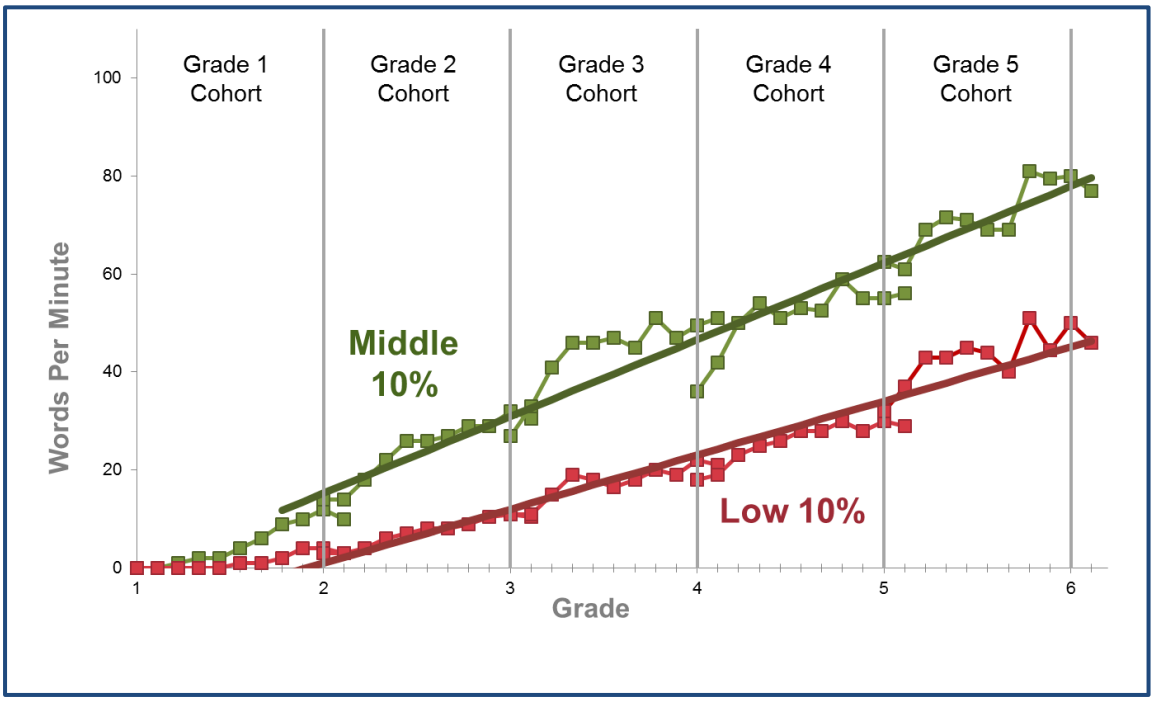


Figure 3.2: Reading Trajectories of Low and Middle Readers (Good, Simmons, & Smith, 1998, p. 47).

It is clear that the gap between the learners widens. Readers in the low group fall further and further behind over time. Although both groups move up and both groups start at the same place, the gap between the two groups widens over time (Sharples, Slavin, Chambers, & Sharp, 2011). The learners in the bottom group never "catch up" to the middle group and, in fact, the gap between the two groups widens. In order to catch up, a learner on the red (low) trajectory needs to learn at a *faster rate* than a learner on the green (middle) trajectory, because the learner on the green trajectory is also going up. At the end of grade 1, learners should read at least 47 words per minute. Learners who read at this level have an 80-90% chance of meeting future reading outcomes. Learners who leave grade 1 reading less than 32 words correct per minute have a 10-20% chance of meeting future reading outcomes unless teachers do something different (Good, Simmons, & Smith, 1998). The difference between 47 and 32 words per minute may seem small, but it is significant in terms of predicting future success.

Reading at least 47 words correct per minute at the end of grade 1 is an important, measureable and attainable goal. Reading at least this well puts the odds in the learner's favour for future reading success. It is important for every learner to reach this minimal goal by the end of grade 1. To wait until a learner has a reading problem and trying to remediate the reading problem may not be the best course of action. Good, Powell-Smith, Murdoch, and Latimer (2011) state that the key is to do something about low skills before there is a reading problem and to intervene as early as possible when a reading problem is identified so that the learner's skills can be brought up to grade level.

There are some key steps teachers can take to prevent reading problems from getting worse, or better yet, to prevent them from happening in the first place. Teachers can focus assessment on key indicators – assess what is important in terms of predicting future reading outcomes and what can be changed with instruction – be driven by the outcomes as well as focusing instruction on what research indicates is important to teach – the basic early literacy skills and to use the data to improve outcomes (Good, Powell-Smith, Murdoch, & Latimer, 2011).

In 1997, Congress asked the Director of the National Institute of Child Health and Human Development (NICHD), in consultation with the Secretary of Education, to convene a national panel to assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read (National Reading Panel, 2000). This National Reading Panel adopted a set of precise research standards

on their mission to discover research documenting the efficiency of reading instructional methods and approaches.

The conclusions of the National Reading Panel were based on a synthesis of research studies that met established criteria that define scientifically based reading research (NICHD, 2000). To be described as scientifically based, research findings or conclusions had to be drawn from studies that used an experimental design to test the effectiveness of a teaching strategy or set of materials in improving one or more of the essential skills involved in reading (Shavelson & Towne, 2002; Stanovich & Stanovich, 2003). Further, these studies had to use samples of learners who represented the larger population, so the findings would be relevant to schools. The studies had to be repeated, or replicated, to build confidence that the findings were solid, and not likely to be mere chance. Finally, the research had to be judged as sound and worthwhile by reading experts other than the studies' authors.

There are many skills that are related to reading performance, but not all are critical areas of reading instruction or "big ideas". To be a "Big Idea", a skill must be something that

- is highly predictive of reading acquisition and later reading achievement;
- teacher can do something about (i.e., something that can be taught); and
- research shows that when it is taught, it changes outcomes (Hawking, 1988, p. 9).

The published report was titled *Report of the National Reading Panel Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction, Reports of the Subgroups.* The National Reading Panel Report described and analysed the five critical areas of reading instruction: **phonemic awareness, phonics, fluency, vocabulary,** and **text comprehension** (National Reading Panel, 2000). The basic early literacy skills serve as organizers and help teachers prioritize how to spend their time. These skills should be the focus of instruction and teachers should teach them thoroughly and well. Similarly the South African Curriculum and Assessment Policy Statement (CAPS) (DBE, 2011) indicates that "each of these components needs to be taught explicitly and practised on a daily basis" (p. 14).

Figure 3.3 illustrates the journey from the 'land of non-reading' to the 'land of reading'. Separating the two is a large, turbulent river. It is not possible to jump from the 'land of non-reading' to the 'land of reading', nor is it possible to jump over a step. Each step along the way is critical and equally important to successful reading. This is the sequence of skills through which most people learn to read, and also the sequence that DIBELS measures.

Figure 3.3: Stepping Stones of Basic Early Literacy Skills (Good & Kaminski, 2002, p. 57).

Teaching children to read is a challenging responsibility. Fulfilling this responsibility requires knowledge of effective instructional practices and a willingness to use them. Teachers who have a thorough understanding of the five essential components of effective reading instruction are equipped to teach children to read using instructional strategies and materials that have proven to be effective.

The basic early literacy skills are inter-related (cf. Figure 3.4). The five essential components of effective reading instruction represent ingredients that must be present in order for children to learn to read (Braunger & Lewis, 2006; National Education Association (NEA) Task Force on Reading, 2000; National Research Council, 2008; Snow, Griffin, & Burns, 2005; Strickland, Snow, Griffin, Burns, & McNamara, 2002). Effective teachers know how to blend these ingredients in the right proportions to meet the unique needs of each child. They understand the roles of phonemic awareness and

phonics in building word-recognition skills, and they know how to identify and correct learners' weaknesses in these areas. They also know that these two foundational components will receive less emphasis as learners gain competence as readers.

Effective teachers know how fluency facilitates comprehension, and they know how to use research-based strategies for helping learners become fluent readers. These teachers are continually building each learner's vocabulary and the ability to learn the meanings of new words through a variety of word-learning strategies. Finally, they know that comprehension is the ultimate goal of reading instruction, and they are adept at helping learners learn to apply appropriate comprehension strategies as they read (Snow, Griffin, & Burns, 2005; Strickland, Snow, Griffin, Burns, & McNamara, 2002).

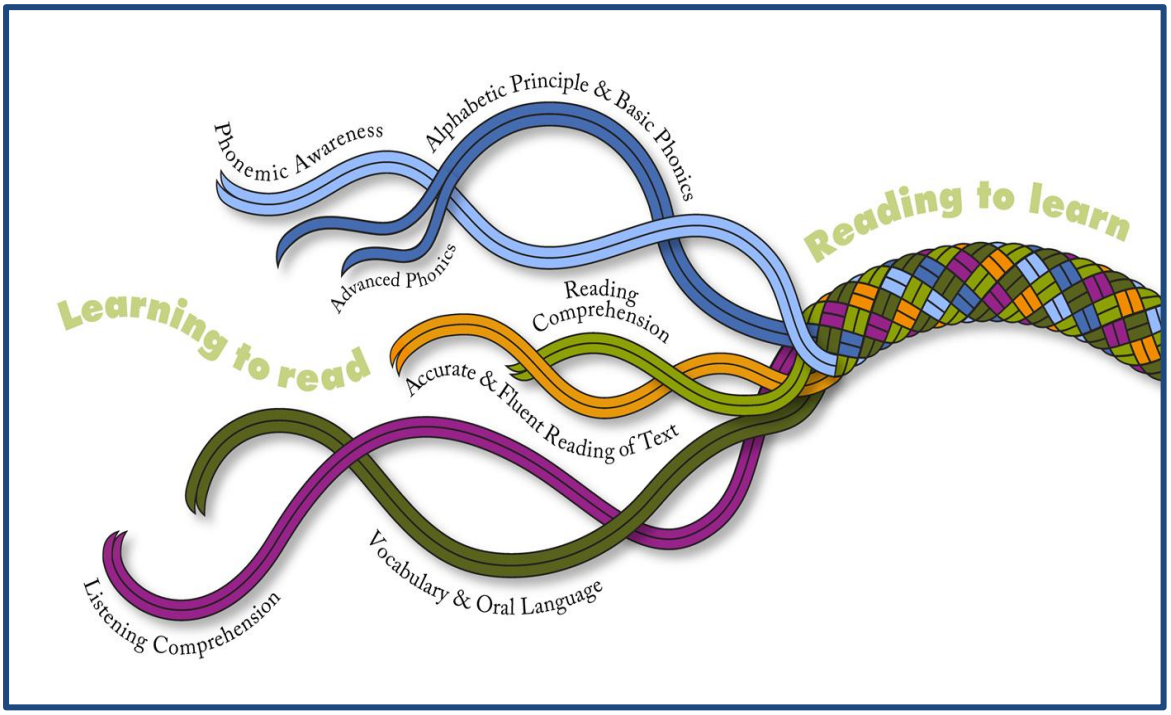


Figure 3.4: Basic Early Literacy Skill Strands (Scarborough, 1998, p. 79)

According to the National Association for the Education of Young Children (NAEYC, 2009), "those who accept the responsibility for teaching children to read understand that it includes a commitment to continually search for more effective ways to help children gain competence in this very important skill" (p. 16). The in-depth discussion below of these components will enable teachers to plan an effective programme of reading instruction, diagnose reading difficulties and provide instruction that targets those difficulties effectively.

3.3.1 Phonemic awareness

Phonemic awareness is commonly defined as the understanding that spoken words are made up of separate units of sound that are blended together when words are pronounced. However, it can also be thought of as skill at hearing and producing the separate sounds in words, dividing or segmenting words into their component sounds, blending separate sounds into words, and recognizing words that sound alike or different. It is defined by reading experts as the ability to focus on and manipulate phonemes in spoken words (NICHD, 2000). For example, hearing and saying that the word **cat** has three sounds, or phonemes /k/ /a/ /t/ is an example of phonemic awareness skill.

Phonemic awareness is important in learning to read languages that are based on an alphabet (Wagner, Torgesen, & Rashotte, 1994). Phonemic awareness can also be used to predict how well children will learn to read. Researchers were able to identify who would learn to read more easily and who would have difficulty by measuring the extent to which children had developed phonemic awareness (Share, Jorm, Maclean, & Matthews, 1984). More importantly, a number of studies have shown that teaching phonemic awareness to young children significantly increases their later reading achievement (Cunningham, 1989; Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998; Lundberg, Frost, & Peterson, 1988). As an essential part of learning to read and a strong predictor of reading success, phonemic awareness is a concept every reading teacher should understand and be able to teach proficiently (Adams, Foorman, Lundberg, & Beeler, 1998).

Although phonemic awareness is a critical skill in learning to read, phonemic awareness instruction by itself is not a complete programme of reading instruction. It is only a means by which children come to understand that words are made up of individual sounds. Therefore, it is important that children quickly learn another skill, namely, to say the letters of the alphabet and to say the sounds represented by letters—as taught through phonics instruction (Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998). Together, phonemic awareness and phonics instruction provide a sound foundation for using the alphabetic principle to learn to read.

3.3.2 Phonics

Understanding phonics and the purpose of phonics instruction involves thinking about how written language was created. Spoken language existed for a very long time before the need for written communication brought about the invention of various alphabets. When people began inventing the letters of an alphabet to represent the sounds of their spoken language, they eventually saw the need for a set of rules to make spelling consistent from word to word. That is, they understood it would be important for the same letter or letters to be used each time a particular sound was represented. The rules they created to establish consistency in how speech sounds are represented in print are what is known as phonics rules.

Therefore, phonics is defined as a set of rules that specify the relationship between letters in the spelling of words and the sounds of spoken language. For the English language, these relationships are predictable, but not completely consistent. However, they are consistent enough to be very useful to young children in helping them learn to decode unfamiliar words (Foorman et al., 1998).

Phonics instruction is intended to help young readers understand and use the alphabetic principle (Share, Jorm, Maclean, & Matthews, 1984). This principle says there is a systematic, if sometimes irregular, relationship between graphemes (letters and letter combinations) and phonemes (individual speech sounds). Effective phonics instruction enables children to use these relationships to read and spell words accurately and rapidly (NICHD, 2000). Phonics instruction also serves as a memory aid that helps learners remember and apply rules and generalizations for matching sounds and letters.

Phonics instruction is never a total reading programme. In Grade 1, teachers can provide controlled vocabulary texts that allow learners to practice decoding, and they can also read quality literature to learners to build a sense of story and to develop vocabulary and comprehension. Phonics should not become the dominant component in a reading programme, neither in the amount of time devoted to it nor in the significance attached. It is important to evaluate children's reading competence in many ways, not only by their phonics skills but also by their interest in books and their ability to understand information that is read to them. By emphasizing all of the processes that

contribute to growth in reading, teachers will have the best chance of making every child a reader (NICHD, 2000).

3.3.3 Fluency

Years ago, fluency was understood to mean rapid word recognition that freed up space in the reader's working memory for use in comprehending the message of the text. That is, fluent readers need to put less effort into word recognition and therefore have more available for comprehension. Later studies of fluency (Rasinski, 1990; Hooks & Jones, 2002) expanded this understanding by clarifying that fluency can also involve grouping words within a sentence into phrases that make what is read easier to comprehend. Grouping words into meaningful phrases and reading with expression helps the reader understand the text by making what is being read resemble natural speech. Fluency is now understood to mean recognizing the words in a text rapidly and accurately and using phrasing and emphasis in a way that makes what is read sound like spoken language.

In a large-scale study of fluency (Pinnell, Pikulski, Wixson, Campbell, Gough, & Beatty, 1995), the National Assessment of Educational Progress reported that almost half of the fourth graders tested were unable to read fluently. That same study identified a close relationship between fluency and comprehension. That is, learners who were low in fluency also showed difficulty comprehending what they read.

This relationship between fluency and comprehension is explained in this way in the National Reading Panel's Report (NICHD, 2000):

> Why do problems with reading accuracy, speed, and expression interfere with comprehension? To answer this question, we need to examine the reading process in terms of two basic cognitive tasks. The reader must recognize the printed words (decoding) and construct meaning from the recognized words (comprehension). Both decoding and comprehension require cognitive resources. At any given moment, the amount of cognitive resources available for these two tasks is restricted by the limits of memory. If the word recognition task is difficult, all available cognitive resources may be consumed by the decoding task, leaving little or nothing for use in interpretation. Consequently, for the non-fluent reader, difficulty with word recognition slows down the process and takes

> up valuable resources that are necessary for comprehension. Reading becomes a slow, labour-intensive process that only fitfully results in understanding (p. 3).

An important aspect of fluency is accurate, automatic word recognition. The idea of accuracy in word recognition focuses on correctly identifying words on the first attempt. When a word is identified correctly, the meaning retrieved from the reader's oral vocabulary is one that makes sense with the other words in the sentence. By definition, automatic behaviour of any type occurs without having to be directed by conscious thought. The kind of automatic behaviour that is part of fluent reading is no exception. The processing of words in print, the accessing of the correct meaning and pronunciation from the reader's oral vocabulary, and the transfer of that information to working memory all take place without the conscious direction of the reader.

Logan (1997) reports that automatic word recognition can be thought of as a continuum that begins with the slow, struggling word recognition of a beginning reader and extends to the rapid, effortless word recognition of the skilled reader. Readers progress gradually along this continuum. This gradual build-up of proficiency requires teaching and practice.

3.3.4 Vocabulary

The term vocabulary refers to words we need to know to communicate with others. There are four types of vocabulary: listening, speaking, reading, and writing. Listening and speaking vocabularies are sometimes referred to collectively as oral vocabulary. Vocabulary is important in word recognition. Young readers use the pronunciations and meanings of words in their oral vocabulary to help them recognize words they see in print (Brett, Rothlein, & Hurley, 1996). When children sound out an unfamiliar word, they use the trial pronunciation they have created to search their oral vocabulary. If they find a match and it makes sense in the sentence, they resume reading (Nagy & Scott, 2000). If the word is not in their oral vocabulary, they will have a difficult time recognizing that word in print even if they are able to produce an accurate pronunciation by decoding.

Vocabulary also plays an important role in comprehension. Much of the research dealing with the effects of vocabulary instruction on comprehension has involved children in higher grades; however, the findings have implications for improving comprehension in younger children as well. These findings include support for two

instructional practices that improve comprehension: ongoing, long-term vocabulary instruction (Beck, Perfetti, & McKeown, 1982) and teaching vocabulary words prior to making reading assignments (Brett, Rothlein, & Hurley, 1996; Wixson, 1986).

Additionally, vocabulary is important for reading to learn as well as learning to read. Children need to understand the meanings of the words they read if they are to learn from what they read (Nagy & Scott, 2000). Baker, Simmons, and Kame'enui (1995) state that vocabulary acquisition is crucial to academic development. Not only do learners need a rich body of word knowledge to succeed in basic skill areas, they also need a specialized vocabulary to learn content area material.

3.3.5 Comprehension

Comprehension involves constructing meaning that is reasonable and accurate by connecting what has been read to what the reader already knows, and thinking about all of this information until it is understood. Comprehension is the final goal of reading instruction. While fluent decoding is an essential component of skilled reading (Block & Pressley, 2002), it should be considered a prerequisite to strong comprehension rather than an end in itself.

Good comprehenders do the following things:

- They use a range of comprehension strategies to deepen and enrich their understanding of what they are reading (Pressley, El-Dinary, & Brown, 1992).
- They are aware of their own thinking processes, and they make conscious decisions to use different comprehension strategies as they read, especially when they detect problems in understanding what they are reading (Baker & Brown, 1984).
- They attribute successful comprehension to effort more than to ability. They believe they can understand what they read if they apply the right comprehension strategies; however, they also believe that achieving this level of understanding requires effort (Brown, 2002).

What these proficient readers have in common is the use of comprehension strategies to help them understand more of what they are reading. The ability to know when and how to use these strategies is essential to understanding different types of text such as stories, informational text, or poetry. Good readers apply comprehension strategies

without being directed to do so. They have become self-regulated in their use of these strategies.

Skilled readers use questions to focus their attention as they read or to connect what is in the text with their prior knowledge. Questions can lead the reader to predict what might be found in text still to be read or to identify aspects of the writer's style or perspective. Proficient readers understand that creating, pondering, and answering questions about what they have read deepens their understanding and, in many cases, their enjoyment of the text.

Creating questions based on the text provides numerous benefits for readers:

- Better monitoring of comprehension (Davey & McBride, 1986). Readers who ask themselves questions during or after reading are able to identify comprehension problems sooner and more accurately.
- Improved comprehension and better recall of information (King, 1994; Davey & McBride, 1986; Rosenshine, Meister, & Chapman, 1996).
- Greater accuracy in answering questions and better identification of main ideas (Rosenshine et al., 1996).

Educational experts recognize that reading is developmental and acquired over a period of time. Longitudinal reading studies have examined a child's reading attainment by the dimension of reading skill achievement at isolated points in his or her school career (Good, Simmons, & Smith, 1998). It is a replicated, upsetting conclusion from research studies, learners indicating early trouble with skill achievement are likely to have weak reading skill achievement and literacy mastery afterward. Stable reading trajectories can be inferred from the high correlation between reading in the initial primary years and reading mastery in higer grade levels (Juel, 1988; Good, Simmons, & Kame'enui, 2001; Good, Simmons, & Smith, 1998; National Reading Panel, 2000).

Preliminary skill accomplishment fostered acquisition of successive skills for children possessing elevated skills and sluggish achievement for learners with inferior initial skills. This difficulty of increasingly narrowed reading skills for learners on a low developmental reading trajectory is compounded by two factors: they began with lower scores, and they increased their skills at a slower pace. Low original skill growth and

low slope (skill acquisition) unite to make *catching up* particularly complicated for learners on a low developmental reading trajectory. An optimal solution is early intervention to facilitate both sufficient primary skills, and the essential pre-skills to accomplish adequate reading growth (Shaywitz, 2003). Children behind at the end of first grade and the start of second grade face nearly insurmountable obstacles to catch up with their peers. A potent answer lies in the early identification of children with defects in critical early literacy skills and enhanced attainment of these important skills. Thus, there is a need to, "catch them before they fall" (Adams, 1990; Baker, Kame'enui, Simmons, & Stahl, 1994; Juel, 1998; Kaminski & Good, 1996; Good, Simmons, & Kame'enui, 2001; Good, Simmons, & Smith, 1998; Torgensen, 1998).

3.4 DIBELS terminology

There are many terms used in DIBELS to describe a learner's level of performance. The following is a description of the terms that are used in DIBELS, along with a brief explanation of each.

3.4.1 Benchmark goals

The major purpose of reading instruction is to ensure that all learners read at grade level or higher each academic year (Snow, Burns, & Griffin, 1998), no later than in grade 3, and that they progress at grade level or higher in reading across the instructional areas throughout their school career. Helping learners learn to read at grade level as early as possible after entering school—and to maintain grade-level reading throughout their school experience—is a critically important education objective that impacts their success in school and beyond. Learners who read at grade level early in school substantially improve their opportunities for long-term success both inside and outside of formal school settings (Finn, Gerber, & Boyd-Zaharias, 2005). From the moment learners enter pre-school, the work schools and teachers do instructionally is the single greatest factor determining whether learners will develop the knowledge and skills necessary to read proficiently—that is, to read at grade level or higher (Trabasso, Massaro, Calfee, & Sabatini, 2005)

When learners are reading at grade level or higher in grade 3, they have the foundational reading skills firmly in place to begin learning challenging content the next year in grade 4. In order to determine if learners are reading at grade level, a

benchmark goal is necessary to indicate at what level the learner is (Good, Simmons, Kame'enui, Kaminski, & Wallin, 2002). According to Good, Powell-Smith, and Kaminski (2011), a benchmark goal is a research-based target score that represents the lowest level of performance on a measure or a skill that predicts reaching the next goal and consists of three parts:

- a basic early literacy skill;
- a level of performance; and
- a point in time (p. 13).

For learners to be on track to reach future reading outcomes, they must reach a certain score by a particular point in time. The benchmark goals represent where teachers want the lowest learner to be by that point in time, because that is the specific level that predicts meeting future goals. Benchmark goals are based on longitudinal research examining how a score on a measure at a point in time predicts later reading outcomes. If a learner achieves a benchmark goal, the odds are in favour of that learner achieving later reading outcomes (Good, Powell-Smith, & Kaminski, 2011).

Benchmark scores can be described in three categories (Good, Kaminski, Wallin, Powell-Smith, & Latimer, 2013) – at or above the benchmark, below the benchmark, and well below the benchmark.

At or Above Benchmark: Odds are generally 80% to 90% of achieving subsequent benchmark goals and important reading outcomes. The learner is likely to make adequate progress with effective core instruction (p. 25).

Below Benchmark: Odds are generally 40% to 60% of achieving subsequent benchmark goals and important reading outcomes. The learner is likely to need strategic support to make adequate progress (30 min of additional support /instruction) (p. 25).

Well Below Benchmark: Odds are generally 10% to 20% of achieving subsequent benchmark goals and important reading outcomes. The learner is likely to need intensive support to make adequate progress (60 min of additional support /instruction) (p. 25).

Benchmark goals function as predictors, to identify which learners are likely to need more instructional support, and they function as goals to work toward in instruction

(Shapiro, 2004). The benchmark goals are related to predictions for the future and the type of instructional support that learners are likely to need to make sufficient progress. The purpose of having the benchmark goal information at the beginning of the year is to beat the odds – change the prediction by teaching so well that even the learners who scored well below the benchmark at the beginning of the year catch up and reach the end of the year goal (Good, Powell-Smith, & Kaminski, 2011).

Learners who score at or above the benchmark goal at the beginning of the year have an 80-90% chance of reaching future reading goals. They are likely to make progress with core reading instruction. Learners who score below the benchmark goal at the beginning of the year have a 40-60% chance of reaching future goals. They are likely to need strategic, targeted instructional support in addition to core reading instruction in order to catch up and meet future goals. Learners who score well below the benchmark goal have a 10-20% chance of reaching future goals if instruction stays the same for them. They are likely to need intensive instructional support in addition to core reading instruction in order to catch up and meet future reading goals (Good, Powell-Smith, & Kaminski, 2011).

According to Goodwin (2010), the reason to screen all learners at the beginning of the year is to identify the learners who are not on track and provide different, perhaps intensive instruction for the purpose of catching up the learner by the end of the year. It is the teacher's responsibility to ruin the prediction by teaching well and changing the predicted outcome.

Benchmark goals provide a framework for evaluating the effectiveness of the instructional system for all learners, and for each learner. Simply doing the assessment will not change outcomes. What is important is what teachers do with the assessment information. The actions teachers take after collecting the assessment information are what will change outcomes for learners (Tomlinson & McTighe, 2006).

3.4.1.1 DIBELS benchmark goals

The DIBELS benchmark goals and timelines for achieving the goals are summarized in Figure 3.5. The purpose of the DIBELS Benchmark goals is to provide teachers with standards for gauging the progress of all learners. The benchmark goals represent minimum levels of performance for all learners to reach in order to be considered on track for becoming a reader. Benchmark goals for DIBELS measures were based on

research that examined the longitudinal predictive validity of a score on a measure at a particular point in time (Good, Kaminski, Shinn, Bratten, Shinn, Laimon, Smith, & Flindt, 2004).

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 cut-off score represent patterns of performance where approximately 50% of learners achieved subsequent literacy goals. Learners with scores in this category require strategic planning on the part of teachers to determine appropriate strategies to support the learners to meet subsequent early literacy goals (Good, Simmons, & Kame'enui, 2001).

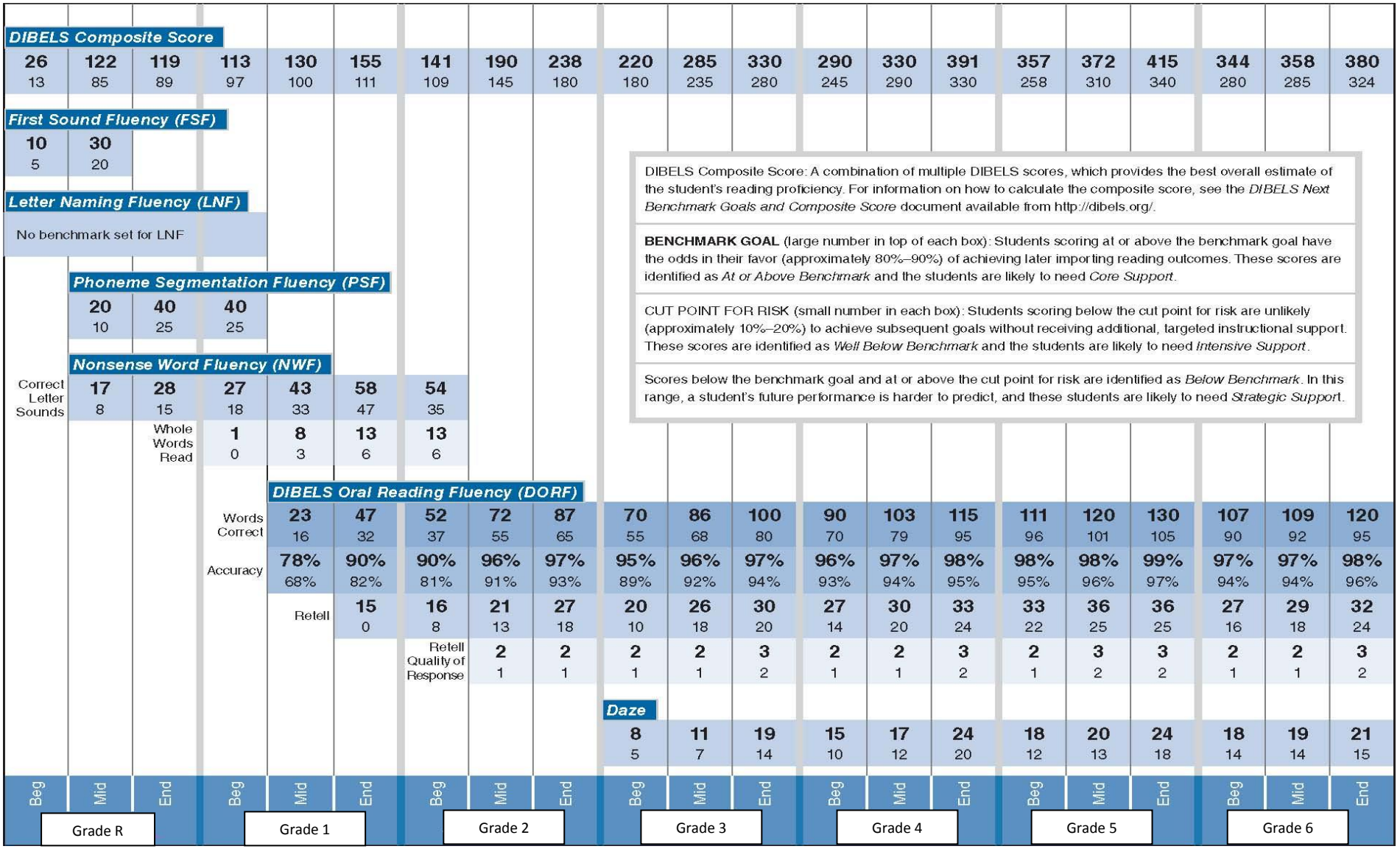


Figure 3.5: Summary of Benchmark Goals and Cut Points for Risk (Adopted from Good, Powell-Smith, & Kaminski, 2011, p. 6).

The DIBELS goals and cut scores are empirically-derived, criterion-referenced scores. They indicate the probability of achieving the next benchmark goal or the probability of the need for additional instructional support for the learner to achieve the next goal. Because the goals and cut scores are based on longitudinal predictive probabilities, they are not set in stone. A score at or above the benchmark indicates an 80% probability of achieving the next goal; but it is not a guarantee. Good and Kaminski (2013) recommend that teachers carefully consider the progress of all their learners on all measures administered as they evaluate their teaching. Most learners who meet a benchmark goal will need continued, high-quality teaching to hit the next target. However, the odds are that approximately 20% of learners who achieve scores at or above the benchmark goal may still need supplemental support to achieve the next goal (Good et al., 2001). Teachers will use additional information that they have about their learners, as well as a pattern of performance across all of the DIBELS measures, to plan support for their learners.

The Summary of Benchmark Goals and Cut Points for Risk, adopted for South Africa, (cf. Figure 3.5) represent minimal levels of performance for the lowest learner – not goals for the average performing learner. Effectively, the benchmark goals represent the minimal level of performance that a child can have, while the odds are still in their favour for becoming a reader. Additionally, each goal represents a steppingstone toward literacy—not a defensible endpoint. The sequence of goals builds upon a recommended skill sequence, with each goal supporting subsequent goals in the context of continued, high-quality instruction (Good et al., 2001).

3.4.2 Cut points for risk

The cut points for risk indicate a level of skill below which the learners are unlikely to achieve subsequent reading goals without receiving additional, targeted instructional support (Good, Powell-Smith, & Kaminski, 2011). Learners with scores below the cut point for risk are identified as likely to need intensive support. Intensive support refers to interventions that incorporate something more or something different from the core curriculum or supplemental support. According to Good, Powell-Smith, and Kaminski (2011), intensive support might entail:

- delivering instruction in a smaller group,
- providing more instructional time or more practice,
- presenting smaller skill steps in the instructional hierarchy,
- providing more explicit modeling and instruction, and/or
- providing greater scaffolding and practice (p. 17).

Because learners needing intensive support are likely to have individual and sometimes unique needs, it is recommended that their progress be monitored frequently and their intervention modified dynamically to ensure adequate progress (Good & Kaminski, 2013). Between a benchmark goal and a cut point for risk is a range of scores where the learner's future performance is harder to predict. To ensure that the greatest number of learners achieve later reading success, it is best for learners with scores in this range to receive carefully targeted additional support in the skill areas where they are having difficulty, to be monitored regularly to ensure that they are making adequate progress, and to receive increased or modified support if necessary to achieve subsequent reading goals (Good, Kaminski, Shinn, Bratten, Shinn, Laimon, Smith, & Flindt, 2004).

3.4.3 DIBELS composite score

The DIBELS Composite Score is a single number that compiles and weights the learner's performance on the significant indicators measured at that point in time. The purpose of the Composite Score is to provide the best overall estimate of the learner's early literacy skills and/or reading proficiency (Good, Powell-Smith, & Kaminski, 2011). Because the DIBELS Composite Score provides the best overall estimate of a learner's skills, the DIBELS Composite Score should generally be interpreted first. If a learner is at or above the benchmark goal on the DIBELS Composite Score, the odds are in the learner's favour of reaching later important reading outcomes. Some learners who score at or above the DIBELS Composite Score benchmark goal may still need additional support in one of the basic early literacy skills, as indicated by a below benchmark score on an individual DIBELS Next measure (FSF, PSF, NWF, DORF, or Daze), especially for learners whose composite score is close to the benchmark goal.

At many assessment periods, the Composite Score is a simple addition of each of the scores included for that time of year; yet for some indicators, there are multipliers other than 1. From the beginning of Grade R through the beginning of Grade 1, the scores are simply added together. From the middle of Grade 1 onward, there are multipliers that range from 2 to 4 except in one case (passage accuracy), in which it is necessary to look up a value on the table. The Composite Score calculations by grade level and time of year for the benchmark screenings is shown in Table 3.1.

Because the scores used to calculate the DIBELS Composite Score vary by grade and time of year, it is important to note that the Composite Score generally cannot be used to directly measure growth over time or to compare results across grades or times of year (Good, Powell-Smith, & Kaminski, 2011). However, because the logic and procedures used to establish benchmark goals are consistent across grades and times of year, the percentage of learners at or above benchmark can be compared, even though the mean scores are not comparable.

Table 3.1: Composite Score Calculations by Grade and Time Period

Grade	Benchmark Period	Factors included in Composite Score
Grade R	Beginning of year	Addition of FSF + LNF
	Middle of year	Addition of FSF + LNF +PSF + NWF - CLS
	End of year	Addition of LNF + PSF + NWF - CLS
Grade 1	Beginning of year	Addition of LNF + PSF + NWF - CLS
	Middle of year	(NWF – CLS) + (NWF – WWR) + (DORF Words Correct) + (DORF Accuracy Value)
	End of year	(NWF – WWR x 2) + (DORF Words Correct) + (DORF Accuracy Value)
Grade 2	Beginning of year	(NWF – WWR x 2) + (DORF Words Correct) + (DORF Accuracy Value)
	Middle of year	(DORF Words Correct) + (Retell x 2) + (DORF Accuracy Value)
	End of year	(DORF Words Correct) + (Retell x 2) + (DORF Accuracy Value)
Grade 3-6	All periods	(DORF Words Correct) + (Retell x 2) + (Daze x 4) + (DORF Accuracy Value)

(Adopted from Hall, 2012, p. 67).

3.5 An overview of the DIBELS Next measures

Each DIBELS measure is an indicator of a Basic Early Literacy Skill. It is critical for teachers to understand the distinction between what and how to assess and what and how to teach. The DIBELS measures allow teachers to assess learners' acquisition of Basic Early Literacy Skills efficiently. Teaching should focus broadly on the Basic Early Literacy Skills. For example, research evidence suggests that Nonsense Word Fluency (NWF) works well as an indicator of the alphabetic principle (Good, Baker, & Peyton, 2009). However, using nonsense word reading as a means of assessing does not mean that teaching should focus on the reading of nonsense words. Rather, the focus of teaching should be the alphabetic principle, or the knowledge of letter-sound correspondences and the application of that knowledge of letter sounds to reading unfamiliar words (i.e., blending or recoding). Teaching of the alphabetic principle should be integrated with other, meaningful reading activities (e.g., opportunities to apply these skills to reading connected text) as early as possible. As pointed out by Kaminski and Good (1996), "While the DIBELS measures may provide an indicator of a child's acquisition of early literacy skills, teachers should not limit instruction to only those skills that are measured by DIBELS. Teachers should provide a broad range of experiences with print as well as instruction in all of the skills that are known to be facilitative of early reading" (p. 328).

Figure 3.6 shows the relationships among the basic early literacy skills, the DIBELS Next measures, and the timeline for achieving benchmark goals for each measure (Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012). The basic early literacy skills (e.g., phonemic awareness, phonics) are represented by the rounded boxes at the top of the figure.

The arrows connecting the rounded boxes show how the early literacy skills relate to one another and lead to reading comprehension. The arrows from the rounded boxes to the boxes in the middle level show the linkage between the basic early literacy skills and the DIBELS Next measures. The lines between the DIBELS Next measures and the timeline at the bottom indicate the target time of the benchmark goals for that measure (Good et al., 2012).

According to Good, Kaminski, Dewey, Wallin, Powell-Smith, and Latimer (2013), in this model, *automaticity with the code* (i.e., accurate and fluent reading of connected text) in combination with *vocabulary and language skills* provide a necessary foundation for learning reading comprehension skills. If the learner does not have adequate skills in either area, the development of reading comprehension skills is likely to be compromised (p. 8).

The model is intended to highlight the primary, most powerful, and instructionally relevant relationships. Other, secondary relations between core components are not included in this figure for clarity. For example, in addition to the relationship between phonemic awareness and phonics, there is also a reciprocal relationship between phonics and phonemic awareness. The model emphasizes this set of relationships in a prevention-oriented framework in which phonemic awareness skills can be developed very early and can provide a foundation for successful phonics instruction (Good et al., 2013).

Teachers need assessments to give them information on their core teaching tasks and activities, and on identifying which particular reading components learners are struggling with. According to the teacher's handbook, *Teaching Reading in the Early Grades* (DoE, 2008), reading assessment must be well planned so that the teacher is able to help each learner achieve his or her full potential in reading. Reading assessments must help the teachers to determine the learner's developmental stage of reading. Reading assessment informs the teacher on how to plan differentiated reading instruction either in large groups, small groups or individual level depending on the learner's need.

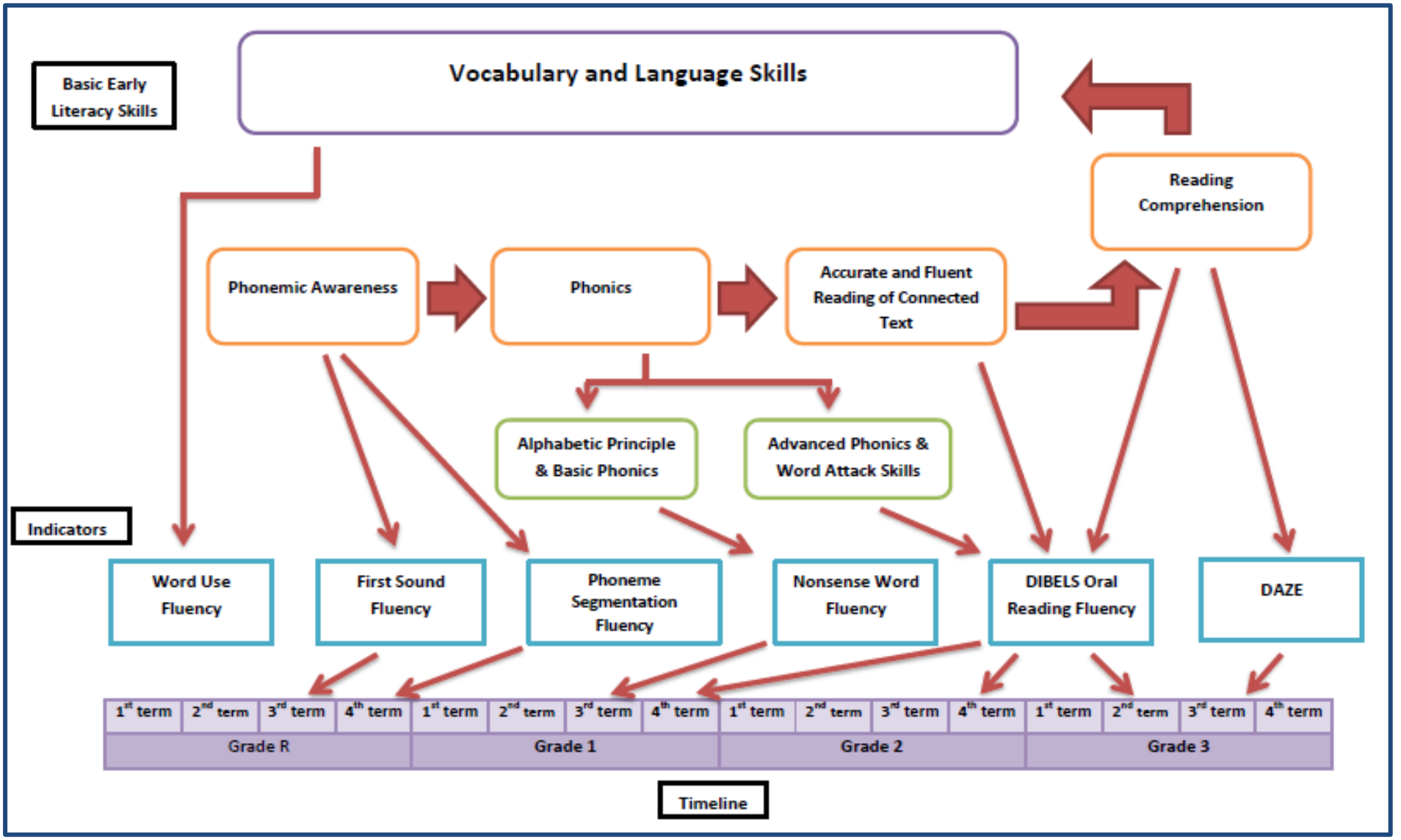


Figure 3.6: Model of Basic Early Literacy Skills, DIBELS Next Indicators and Timeline adopted for South African Schools (Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 4)

DIBELS is designed to help make decisions about reading instruction, to help the teacher provide support early and to prevent the occurrence of later reading difficulties. *DIBELS* assesses *basic early literacy skills*, or the essential skills that every child must master to become a proficient reader (DoE, 2008; National Reading Panel, 2000; National Research Council, 1998).

DIBELS Next comprises six measures:

1. ***First Sound Fluency (FSF):*** The assessor says words, and the learner says the first sound for each word.
2. ***Letter Naming Fluency (LNF):*** The learner is presented with a sheet of letters and asked to name the letters.
3. ***Phoneme Segmentation Fluency (PSF):*** The assessor says words, and the learner says the individual sounds in each word.
4. ***Nonsense Word Fluency (NWF):*** The learner is presented with a list of VC and CVC nonsense words (e.g., sig, rav, ov) and asked to read the words.
5. ***DIBELS Oral Reading Fluency (DORF):*** The learner is presented with a reading passage and asked to read aloud. The learner is then asked to retell what he/she just read.
6. ***Daze:*** The learner is presented with a reading passage in which some words are replaced by a multiple choice box that includes the original word and two distractors. The learner reads the passage silently and selects the word in each box that best fits the meaning of the sentence.

The purpose of the following discussion of the DIBELS measures[2] is to provide the reader with an overview of each of the measures as well as an indication of the explicitness of the administration and scoring procedures required. The purpose is to lighten awareness with regard to the quality required when administering assessments. The old adage applies: “Garbage in, Garbage out!”

[2] For a detailed discussion of each DIBELS measure the DIBELS Next Manual can be consulted.

3.5.1 First sound fluency (FSF)

FSF is a brief, direct measure of a learner's fluency in identifying the initial sounds in words. The ability to isolate the first sound in a word is an important phonemic awareness skill that is highly related to reading acquisition and reading achievement (Yopp, 1992).

First Sound Fluency is a direct assessment of one of the first steps toward successful reading, namely phonemic awareness. First Sound Fluency provides an indication of whether or not learners are mastering an early phonemic awareness skill, producing initial sounds in spoken words. Because phonemic awareness is a key early literacy skill, learners who score above the benchmark goal on FSF are probably on track toward reading success. Those who do not may need some additional instructional support.

The ability to isolate and identify the first phoneme in a word is an easier skill than segmenting words or manipulating phonemes in words, thus FSF is used as a measure of developing phonemic awareness at the beginning and middle of pre-school. According to Yopp (1992), phonemic awareness is essential to learning to read in an alphabetic writing system:

- Letters represent sounds/phonemes in spoken words; and
- without phonemic awareness, phonics makes little sense (p. 697).

Knowledge of sounds in spoken language will make it easier for learners to learn letter-sound connections and phonics. Phonemic awareness is a skill that can be taught in very natural, child-friendly ways. When it is taught, reading outcomes improve (McGuiness, 2004). Learners who have mastered phonemic awareness are more likely to be readers.

Using standardized directions (cf. Table 3.2), the assessor says a series of words one at a time to the learner and asks the learner to say the first sound in the word. On the scoring page, the assessor circles the corresponding sound or group of sounds the learner says. Learners receive either 2 points for saying the initial phoneme of a word (e.g., saying the /s/ sound as the first sound in the word street) or 1 point for saying the initial consonant blend (e.g., /st/, /str/ in *street*), consonant

plus vowel (e.g., /si/ in *sit*), or consonant blend plus vowel (e.g., /strea/ in *street*). A response is scored as correct as long as the learner provides any of the correct responses listed for the word. The total score is based on the number of correct 1- and 2-point responses the learner says in 1 minute.

Table 3.2: Overview of First Sound Fluency (FSF)

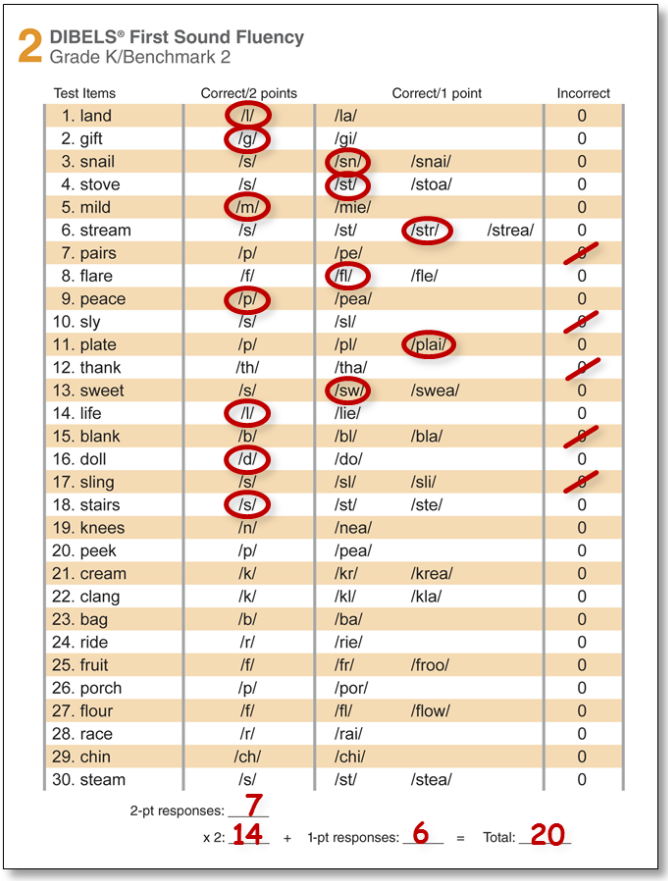
Basic Early Literacy Skill	Phonemic Awareness
Administration Time	1 minute
Administration Schedule	Beginning of Grade R to middle of Grade R
Score	2 points for each correct initial phoneme and 1 point for each correct initial consonant blend, consonant plus vowel, or consonant blend plus vowel said by the learner in 1 minute
Wait Rule	If the learner does not respond within 3 seconds on a word, mark a slash ( ) through the zero and say the next word
Discontinue Rule	Zero points in the first five words

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 39).

Differential scoring for learner responses allows young learners to receive partial credit for demonstrating beginning skills in phonemic awareness. A learner who may not be able to isolate an initial phoneme (e.g., /s/, /t/) would still receive partial credit for providing the first group of sounds in the word, showing emerging understanding that words are made up of sounds. Although partial credit is given, the goal is for the learner to be able to correctly say the first phoneme of each word.

To ensure that learners understand the task and to maximize the performance of young learners who may not have had any prior exposure to instruction in phonemic awareness, three practice items are included. The practice items provide increasing levels of support, including modelling (e.g., “listen to me say...”) and leading the correct response (e.g., “say it with me”). By design, the first two practice items start with the same sound, /m/. In the first practice item, isolation of the /m/ sound at the

beginning of a word is modelled. In the second practice item, the learner is asked to isolate the beginning sound in a word that also starts with /m/. In the third practice item, the learner is asked to generalize the skill of isolating beginning sounds to a word that does not start with /m/. After the practice items the assessment starts. The assessor says a series of words one at a time to the learner and asks the learner to say the first sound in the word (cf. Figure 3.7 for an example of the assessment and scoring guideline).



2 DIBELS® First Sound Fluency
Grade K/Benchmark 2

Test Items	Correct/2 points	Correct/1 point			Incorrect
1. land	/l/	/la/			0
2. gift	/g/	/gi/			0
3. snail	/s/	/sn/	/snai/		0
4. stove	/s/	/st/	/stoa/		0
5. mild	/m/	/mie/			0
6. stream	/s/	/st/	/str/	/strea/	0
7. pairs	/p/	/pe/			0
8. flare	/f/	/fl/	/fle/		0
9. peace	/p/	/pea/			0
10. sly	/s/	/sl/			0
11. plate	/p/	/pl/	/plai/		0
12. thank	/th/	/tha/			0
13. sweet	/s/	/sw/	/swea/		0
14. life	/l/	/lie/			0
15. blank	/b/	/bl/	/bla/		0
16. doll	/d/	/do/			0
17. sling	/s/	/sl/	/sli/		0
18. stairs	/s/	/st/	/ste/		0
19. knees	/n/	/nea/			0
20. peek	/p/	/pea/			0
21. cream	/k/	/kr/	/krea/		0
22. clang	/k/	/kl/	/kla/		0
23. bag	/b/	/ba/			0
24. ride	/r/	/rie/			0
25. fruit	/f/	/fr/	/froo/		0
26. porch	/p/	/por/			0
27. flour	/f/	/fl/	/flow/		0
28. race	/r/	/rai/			0
29. chin	/ch/	/chi/			0
30. steam	/s/	/st/	/stea/		0

2-pt responses: 7
x 2: 14 + 1-pt responses: 6 = Total: 20

Figure 3.7: FSF Assessment

FSF is given as part of benchmark assessment at the beginning and middle of Grade R (cf. Table 3.3). The goal at the beginning of the year is 10, and at the middle of the year the goal is 30. Learners whose scores are at or above these goals have a 80-90% chance of reaching future reading outcomes. Learners who score below these goals are likely to need additional instructional support to reach future goals.

Table 3.3: FSF Benchmark Goals and Cut Point for Risk

Grade	Score Level	Beginning of Year	Middle of Year	End of Year
Grade R	At or Above Benchmark	10	30	
	Below Benchmark	5 – 9	20 – 29	
	Well Below Benchmark	0 – 4	0 – 19	

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 129).

3.5.2 Letter naming fluency (LNF)

LNF is a brief, direct measure of a learner's fluency in naming letters. LNF assesses a learner's ability to recognize individual letters and say their letter names. Using standardized directions, the assessor presents a page of uppercase and lowercase letters arranged in random order and asks the learner to name the letters. The assessor marks letter names that are read incorrectly or skipped. The total score is the number of correct letter names that the learner says in 1 minute.

The purpose of LNF is to measure learners' automaticity with letter naming. Fluency in naming letters is a strong and robust predictor of later reading achievement (Adams, 1990; Hammill, 2004; Scarborough, 1998; Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004). The purpose of LNF is to measure fluency rather than identify which letters the learner knows or does not know, so while all letters are included on the LNF materials, they appear in random order. As such, it provides an added risk indicator for early school-age children.

Letter naming fluency is not an indicator of any of the basic early literacy skill. The basic early literacy skills represent the research-based elements of instruction. They are the skills that learners must acquire to be readers. It is possible to learn to read without naming letters (Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004). So letter naming is a secondary, but not a primary, instructional target. Letter Naming Fluency functions as an indicator of risk and an indication of how much instructional support a learner may need to learn one of the basic early literacy skills (Whitehurst & Lonigan, 1998). Because Letter Naming is not a basic early literacy

skill, there is no benchmark goal for Letter Naming Fluency, nor are there progress monitoring materials for LNF. Although Letter Naming Fluency is not an indicator of a basic early literacy skill (cf. Table 3.4), it is a measure of learner's fluency with naming letters and an indication of risk of reading failure.

Table 3:4: Overview of Letter Naming Fluency (LNF)

Basic Early Literacy Skill	None
Administration Time	1 minute
Administration Schedule	Beginning of Grade R to beginning of Grade 1
Score	Number of letters named correctly in 1 minute
Wait Rule	If the learner does not name a letter within 3 seconds, mark a slash (**/**) through the letter and say the correct letter name.
Discontinue Rule	No letters named correctly in the first row

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 48).

The timing starts when the assessor says "begin" and stops at the end of one minute. The score is the number of letters named correctly in one minute (cf. Figure 3.8). Correct letters are left blank. Incorrect letters such as letters that are named incorrectly, hesitations for more than 3 seconds, and letters that are omitted are slashed. If a learner hesitates for more than 3 seconds on a letter, say the correct letter name and slash the letter. Learners can get credit for an incorrect response as long as they self-correct within 3 seconds. If a learner skips a row, draw a line through the row and disregard those letters in terms of scoring. Discontinue the task if the learner has not gotten any correct letters in the first row.

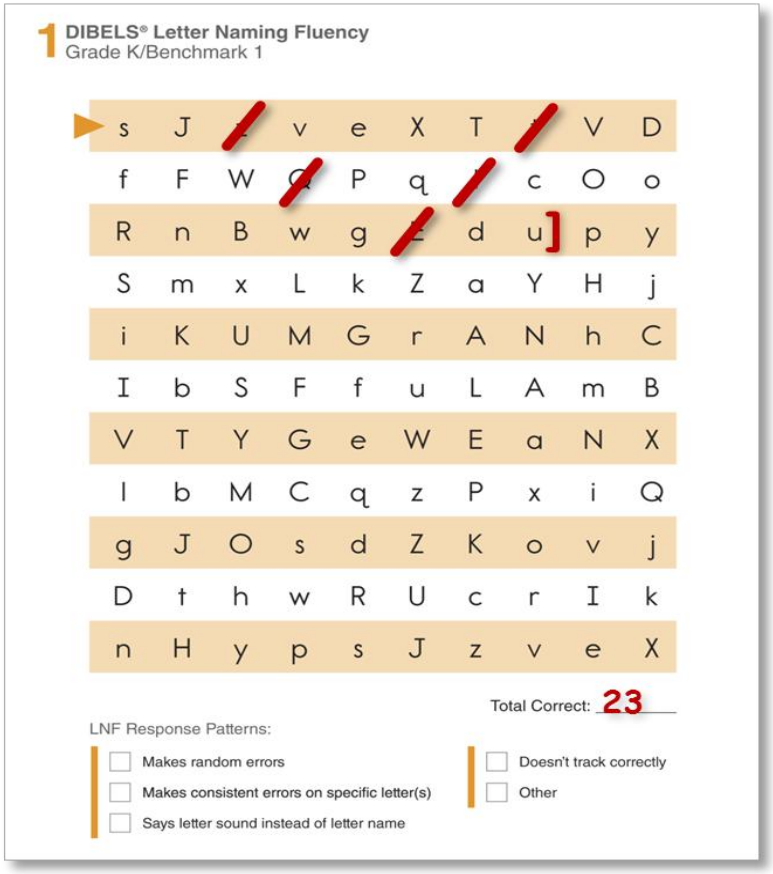


Figure 3.8: LNF Assessment

3.5.3 Phoneme segmentation fluency (PSF)

Phoneme Segmentation Fluency is a direct assessment of one of the first steps toward successful reading, phonemic awareness. Phoneme Segmentation Fluency provides an indication of whether or not learners are mastering an early phonemic awareness skill, producing all of the individual sounds, or phonemes, in spoken words. Because phonemic awareness is a key early literacy skill, learners who score above the benchmark goal on PSF are probably on track toward reading success. Those who do not may need some additional instructional support. Phonemic awareness, which is the ability to recognize, produce, and manipulate sounds in spoken language (Ehri, Nunes, Willows, & Schuster, 2001). A phoneme is the smallest unit of speech that makes a difference to the meaning of the word (Yopp, 1992). How many phonemes are in each of these words? For example, breaking down the spoken word “cat” into the individual phonemes, or sounds, /k/ /a/ /t/. Phonemic awareness is a purely auditory skill.

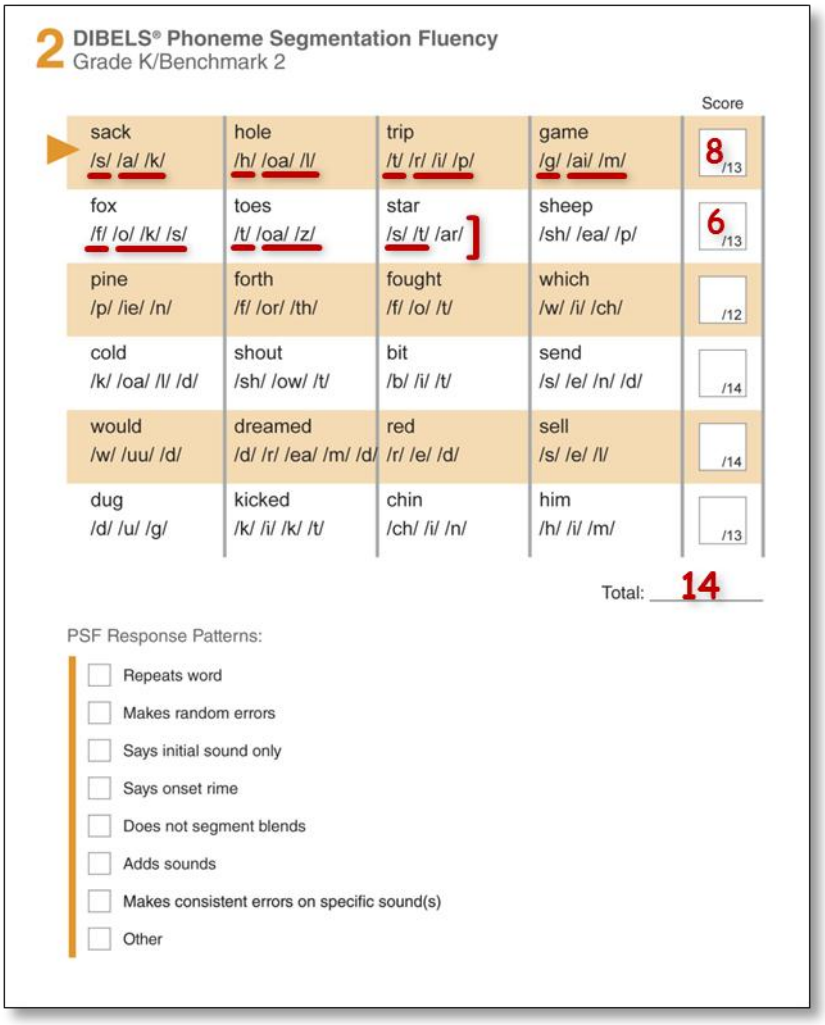
According to Phillips and Torgesen (2006), teaching and learning phonemic awareness does not happen in isolation. At the same time learners are learning phonemic awareness in preschool, they are also developing vocabulary and oral language skills. These skills are related to phonics are decoding. Phoneme Segmentation Fluency (PSF) assesses the learner's fluency in segmenting a spoken word into its component parts or sound segments (cf. Table 3.5).

Table 3:5: Overview of Phoneme Segmentation Fluency (PSF)

Basic Early Literacy Skill	Phonemic Awareness
Administration Time	1 minute
Administration Schedule	Middle of Grade R to beginning of Grade 1
Score	Number of correct sound segments the learner says in 1 minute
Wait Rule	No response within 3 seconds, say the next word
Discontinue Rule	Zero correct sound segments in the first five words

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 55).

Using standardized directions, the assessor says a word and asks the learner to say the sounds in the word. The assessor underlines each correct sound segment of the word that the learner says (cf. Figure 3.9). The total score is the number of correct sound segments that the learner says in 1 minute. For example, if the assessor says the word *fish* and the learner says /f/ /i/ /sh/, the learner has completely and correctly segmented the word into its component sounds and the score is 3 correct sound segments. If the learner says /f/ /ish/, the score is 2 correct sound segments.



2 DIBELS® Phoneme Segmentation Fluency
Grade K/Benchmark 2

				Score
sack /s/ /a/ /k/	hole /h/ /oa/ /l/	trip /t/ /r/ /i/ /p/	game /g/ /ai/ /m/	8 /13
fox /f/ /o/ /k/ /s/	toes /t/ /oa/ /z/	star /s/ /t/ /ar/	sheep /sh/ /ea/ /p/	6 /13
pine /p/ /ie/ /n/	forth /f/ /or/ /th/	fought /f/ /o/ /t/	which /w/ /i/ /ch/	/12
cold /k/ /oa/ /l/ /d/	shout /sh/ /ow/ /t/	bit /b/ /i/ /t/	send /s/ /e/ /n/ /d/	/14
would /w/ /uu/ /d/	dreamed /d/ /r/ /ea/ /m/ /d/	red /r/ /e/ /d/	sell /s/ /e/ /l/	/14
dug /d/ /u/ /g/	kicked /k/ /i/ /k/ /t/	chin /ch/ /i/ /n/	him /h/ /i/ /m/	/13

Total: 14

PSF Response Patterns:

- ☐ Repeats word
- ☐ Makes random errors
- ☐ Says initial sound only
- ☐ Says onset rime
- ☐ Does not segment blends
- ☐ Adds sounds
- ☐ Makes consistent errors on specific sound(s)
- ☐ Other

Figure 3.9: PSF Assessment

Partial credit is given for partial segmentation. A learner who is developing phonemic awareness may not yet segment words completely into individual sounds but *may* segment parts of words. For example, a learner who says the first sound of the word *sun* (/s/) receives 1 point. A learner who says the onset and rime (/s/ /un/) receives 2 points and a learner who completely and correctly segments all of the individual phonemes in the word (/s/ /u/ /n/) receives 3 points. Consonant blends have two or more phonemes that should be produced separately for a learner to receive full credit. For example, for the word *trap*, a learner who says /tr/ /a/ /p/ receives partial credit of 3 points, and a learner who says /t/ /r/ /a/ /p/ receives the full 4 points.

By allowing partial credit in the scoring increases the sensitivity of the measure, thus making it possible to measure growth from partial to complete segmentation. Although partial credit is given, the preferred response is for learners to completely segment words at the phoneme level by the end of Grade 1.

The benchmark goals for PSF are listed in Table 3.6. The goal at the middle of the year for Grade R learners is 20, and at the end of the year the goal for Grade R learners is 40. The goal for Grade 1 learners at the beginning of the year is 40. Learners who score at or above the benchmark goal have an 80-90% chance of reaching future reading goals.

Table 3.6: PSF Benchmark Goals and Cut Point for Risk

Grade	Score Level	Beginning of Year	Middle of Year	End of Year
Grade R	At or Above Benchmark		20	40
	Below Benchmark		10 – 19	25 – 39
	Well Below Benchmark		0 – 9	0 – 24
Grade 1	At or Above Benchmark	40		
	Below Benchmark	25 – 39		
	Well Below Benchmark	0 – 24		

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 128).

In summary, the timing for Phoneme Segmentation Fluency starts when the assessor says the first word and ends after one minute. Learners receive points for each correct sound segment they produce in one minute. The most desirable response is segmenting the words into phonemes, however, learners can get credit for incomplete segmentation.

3.5.4 Nonsense word fluency (NWF)

On the road to becoming a skilled reader, the second important basic early literacy skill is the alphabetic principle. Nonsense Word Fluency is an indicator of both parts of the alphabetic principle. As learners are learning to read, the alphabetic principle and basic phonics provides an early foundation. Automaticity with phonemic awareness provides a strong foundation for learning the alphabetic principle, or phonics and decoding (Moats, 2000). According to Good et al. (2013), advanced

phonics skills are taught later in the primary grades. Nonsense Word Fluency is an indicator of the core component, the alphabetic principle. The alphabetic principle, also known as “phonics,” has two parts:

- alphabetic understanding; and
- phonological recoding (Bay Area Reading Task Force, 1997, p. 41).

Part 1 is alphabetic understanding. This includes letter-sound correspondence or grapheme-phoneme correspondence and the understanding that letters represent sounds in spoken words (p. 41).

Part 2 is phonological recoding, or blending the letter-sounds to form words. Phonological recoding involves the use of alphabetic understanding to decode unknown words (p. 41).

It is important to note that the alphabetic principle is not simply knowing letter-sounds. In order to read, children need to be fluent at blending sounds into words (Anderson, Hiebert, Scott, & Wilkinson, 1985). This is where phonemic awareness and the alphabetic principle work together. If a child knows that words are made up of individual speech sounds and is familiar with the symbols (i.e., letters of the alphabet) and knows their sounds, it is much easier for the child to blend those sounds into a word. Phonics is the system of letter-sound relationships that is the foundation for decoding words in print. The understanding of basic phonics begins with knowing basic letter-sound correspondences and applying this knowledge to decode simple words. These skills are essential to being a skilled reader. Learners who struggle with reading are often missing these skills. The alphabetic principle and basic phonics skills can be taught. And when they are taught, learners are more likely to become proficient readers (Snow et al., 1998).

Nonsense Word Fluency (NWF) is a brief, direct measure of the alphabetic principle and basic phonics. It assesses knowledge of basic letter-sound correspondences and the ability to blend letter sounds into consonant-vowel-consonant (CVC) and vowel-consonant (VC) words. The test items used for NWF are phonetically regular make-believe (nonsense or pseudo) words. To successfully complete the NWF task, learners must rely on their knowledge of letter-sound correspondences and how to

blend sounds into whole words (cf. Table 3.7). One reason that nonsense word measures are considered to be a good indicator of the alphabetic principle is that "pseudowords have no lexical entry, [and thus] pseudo-word reading provides a relatively pure assessment of learners' ability to apply grapheme-phoneme knowledge in decoding" (Rathvon, 2004, p. 138).

Table 3:7: Overview of Nonsense Word Fluency (NWF)

Basic Early Literacy Skill	Alphabetic Principle and Basic Phonics
Administration Time	1 minute
Administration Schedule	Middle of Grade R to beginning of Grade 2
Score	Number of correct letter sounds (CLS) and number of whole words read without sounding out (WWR)
Wait Rule	If the learner responds sound-by-sound, mixes sounds and words, or sounds out and recodes, allow 3 seconds, then provide the correct letter sound. If the learner responds with whole words, allow 3 seconds, then provide the correct word.
Discontinue Rule	No correct letter sounds in the first row

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 66).

Following a model and a practice item, the learner is presented with a sheet of randomly ordered VC and CVC nonsense words (e.g., *dif*, *ik*, *nop*). Standardized directions are used to ask the learner to read the make-believe words the best they can, reading either the whole word or saying any sounds they know. For example, if the stimulus word is *tof,* the learner could say /t/ /o/ /f/ or "tof." The assessor underlines each correct letter sound produced either in isolation or blended together (cf. Figure 3.10). Whole words read without sounding out are underlined in their entirety.

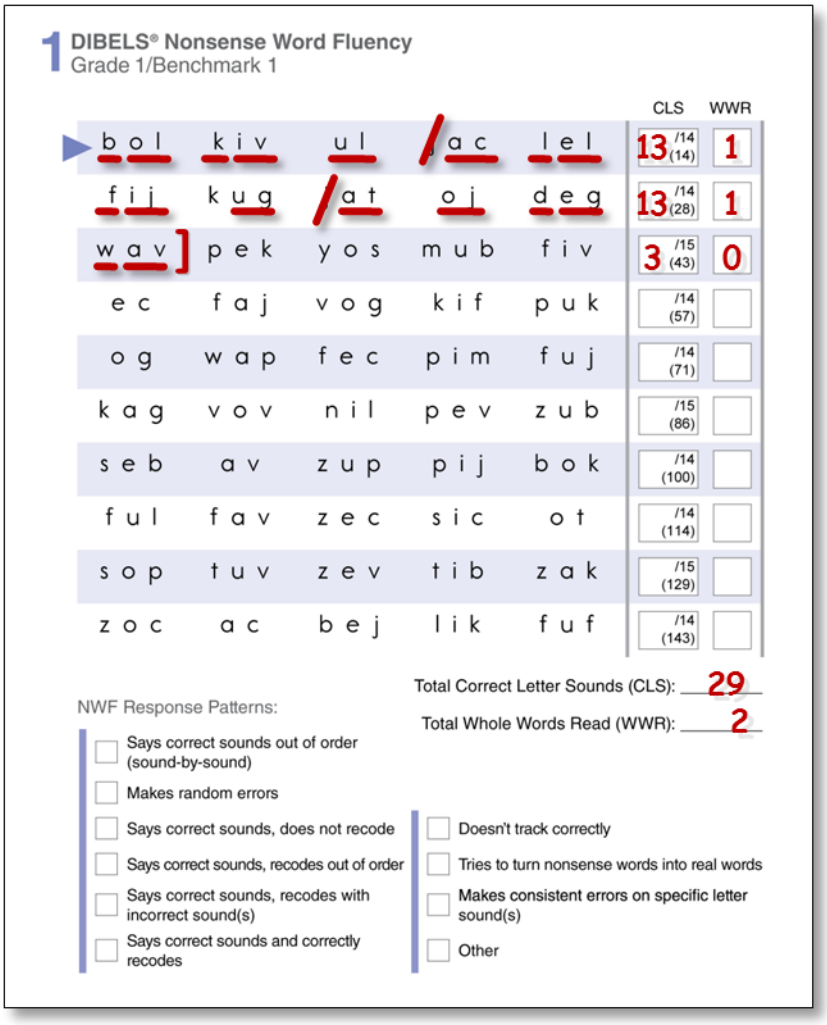


Figure 3.10: NWF Assessment

There are two separate scores reported for NWF:

1. Correct Letter Sounds (CLS) is the number of letter sounds produced correctly in 1 minute. For example, if the learner reads dif as /d/ /i/ /f/ the score for Correct Letter Sounds is 3. If the learner reads *dif* as /di/ /f/ or "dif," the score is also 3.
2. Whole Words Read (WWR) is the number of make-believe words read correctly as a whole word without first being sounded out. For example, if the learner reads *dif* as "dif," the score is 3 points for CLS and 1 point for WWR, but if the learner reads *dif* as "/d/ /i/ /f/ dif," the score is 3 points for CLS but 0 points for WWR.

The benchmark goals for NWF are listed in Table 3.8. The goal at the middle of the year for Grade R learners is 17, and at the end of the year the goal for Grade R

learners is 28. The goal for Grade 1 learners at the beginning of the year for the correct letter sounds is 27, and 1 for whole words read.

Table 3.8: NWF Benchmark Goals and Cut Point for Risk

Grade	Score Level	Beginning of Year		Middle of Year		End of Year	
Grade R	At or Above Benchmark			17		28	
	Below Benchmark			8 – 16		15 – 27	
	Well Below Benchmark			0 – 7		0 – 14	
Grade 1	At or Above Benchmark	CLS	27	CLS	43	CLS	58
		WWR	1	WWR	8	WWR	13
	Below Benchmark	CLS	18 – 26	CLS	33 – 42	CLS	47 – 57
		WWR	0	WWR	3 – 7	WWR	6 – 12
	Well Below Benchmark	CLS	0 – 17	CLS	0 – 32	CLS	0 – 46
		WWR		WWR	0 – 2	WWR	0 – 5
Grade 2	At or Above Benchmark	CLS	54				
		WWR	13				
	Below Benchmark	CLS	35 – 53				
		WWR	6 – 12				
	Well Below Benchmark	CLS	0 – 34				
		WWR	0 – 5				

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 128).

The goal at the middle of the year correct letter sounds for Grade 1 learners is 43 and for whole words read is 8, and at the end of the year the goal for Grade 1 learners for correct letter sounds is 58 and for whole words read the goal is 13 whole words read. The goal for Grade 2 learners at the beginning of the year for the correct

letter sounds is 54, and 13 for whole words read. Learners who score at or above the benchmark goal have an 80-90% chance of reaching future reading goals.

The goal is for learners to read whole words on NWF; however, an advantage of NWF is that it allows for monitoring the development of the alphabetic principle and basic phonics as early as the middle of Grade R, when producing individual letter sounds is the more common response.

3.5.5 DIBELS oral reading fluency (DORF)

DIBELS Oral Reading Fluency is an indicator of advanced phonics and word attack skills, accurate and fluent reading of connected text, and reading comprehension. According to Good et al. (2013), the retell portion of DIBELS Oral Reading Fluency provides an additional check on comprehension for the small number of learners who read a minimum number of words correct per minute, but for whom oral reading fluency alone may not be a good indicator of comprehension.

Oral Reading Fluency is more than accurate reading of words and is not speed reading. There are multiple definitions of fluency in the reading literature. Most definitions include accuracy, rate, and prosody. Oral Reading Fluency is, “the ability to read words accurately, effortlessly (automatically), and with appropriate phrasing and expression when reading orally” (Rasinski, 2003, p. 169). Reading Fluency is reading that is accurate (without too many miscues), at a reasonable rate, and prosodic (read with enough expression that it sounds like language) (Kuhn & Stahl, 2000; NICHD, 2000). Reading fluency depends on well-developed letter-sound recognitions skills, efficient and automatic decoding of regular and irregular words, and the use of expression and phrasing when reading aloud.

Comprehension is the ultimate goal of reading assessment and teaching. According to Kosanovich, Reed, and Miller (2010), comprehension is not a single skill, but a collection of skills that includes:

- accurate and fluent reading;
- monitoring while reading;
- ability to use cognitive strategies flexibly to gain meaning from text;
- linguistic knowledge about syntax, semantics, and word morphology;

- prior knowledge; and
- cause and effect reasoning (p. 684).

Reading comprehension is the ability to understand what is read (Duke, Pressley, & Hilden, 2004), thinking guided by print (Perfetti, 1985), a process through which the reader draws meaning from text (Carlisle & Rice, 2002), the process of simultaneously extracting and constructing meaning through interaction and involvement with written language (RAND Reading Report, 2002). In the progression of skills leading to reading comprehension, accuracy precedes fluency. It is not useful to read fast and make many mistakes. Once a learner is an accurate reader, it is repeated practice that moves them to automaticity and fluency. Once a learner is both accurate and fluent, they are able to attend to what they read and can read with expression. Fluency can be described as the bridge to comprehension. It is not a goal itself, but a means to the end of understanding what is read (Adams, 1990; LaBerge & Samuels, 1974; Stanovich, 1980, 1984).

DIBELS Oral Reading Fluency (DORF) is a measure of advanced phonics and word attack skills, accurate and fluent reading of connected text, and reading comprehension (cf. Table 3.9).

Table 3:9: Overview of DIBELS Oral Reading Fluency (DORF)

Basic Early Literacy Skill	Advanced Phonics and Word Attack Skills Accurate and Fluent Reading of Connected Text Reading Comprehension
Administration Time	1 minute plus 1 minute maximum for Retell
Administration Schedule	Middle of Grade 1 through end of Grade 6
Score	• Median number of words correct per minute (Words Correct) • Median number of errors per minute (Errors) • Median number of correct words in the Retell • Median Quality of Response for the Retell
Wait Rule	On DORF, 3 seconds; On Retell, first hesitation 3 seconds
Discontinue Rule	If no words are read correctly in the first line, say ***Stop***, record a score of 0, and do not administer Retell. If fewer than 10 words are read correctly on passage #1 during benchmark assessment, do not administer Retell or passages #2 and #3. If fewer than 40 words are read correctly on any passage, use professional judgment whether to administer Retell for that passage.

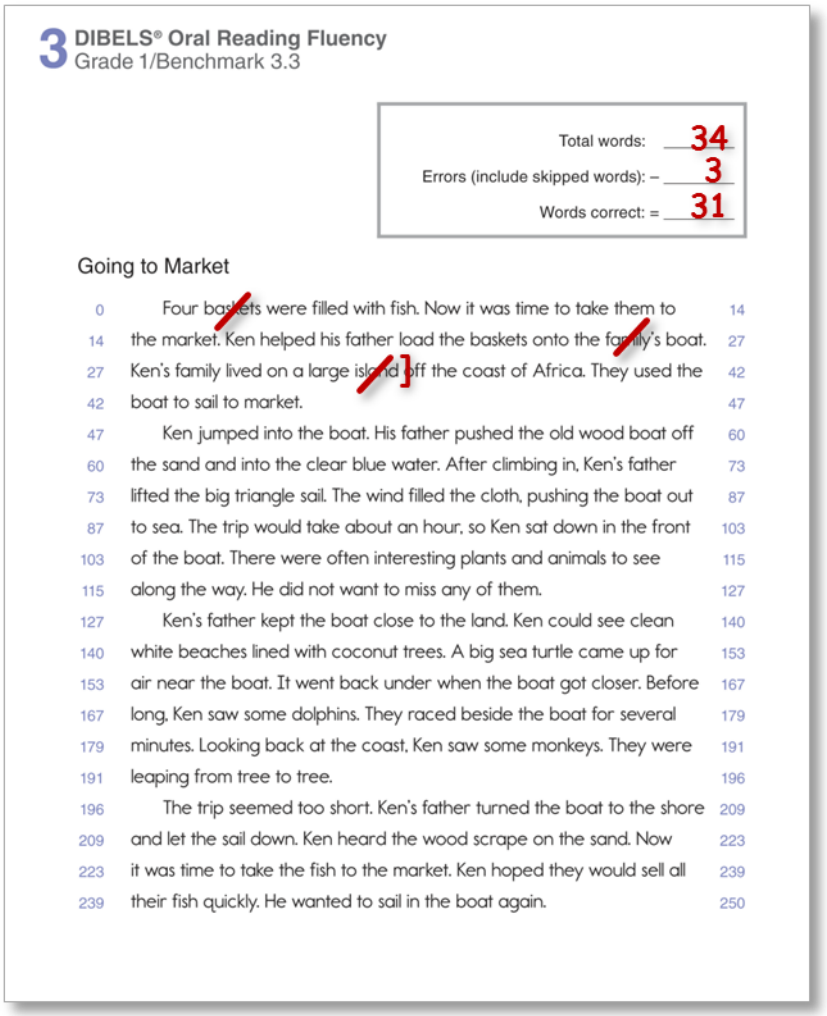
(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 79).

There are two components to DORF: oral reading fluency and passage retell. For the oral reading fluency component, learners are given an unfamiliar, grade-level passage of text and asked to read for 1 minute. Errors such as substitutions, omissions, and hesitations for more than 3 seconds are marked while listening to the learner read aloud (cf. Figure 3.11). For benchmark assessment, learners are asked to read three different grade-level passages for 1 minute each. The score is the median number of words read correctly and the median number of errors across the three passages. Using the median score from three passages gives the best indicator of learner performance over a range of different texts and content.

The passage retell component follows the reading of each passage, *provided that the learner has read at least 40 words correct per minute on a given passage.* Passage retell is intended to provide a comprehension check for the DORF

assessment, and provides an indication that the learner is reading for meaning. With a prompted passage retell, the learner is instructed to read for meaning. Speed-reading without attending to text comprehension is undesirable and will be readily apparent in the learner's retell.

Case studies have documented learners who can read words but not comprehend what they read (Dewitz & Dewitz, 2003). There is concern that learners who display similar reading behaviour will not be identified without a comprehension check. Passage retell provides an efficient procedure to identify those learners who are not able to talk about what they have just read. Inclusion of passage retell also explicitly instructs learners to be reading fluently for meaning. The quality of a learner's retell provides valuable information about overall reading proficiency and oral language skills.



3 DIBELS® Oral Reading Fluency
Grade 1/Benchmark 3.3

Total words: 34
Errors (include skipped words): – 3
Words correct: = 31

Going to Market

0 Four baskets were filled with fish. Now it was time to take them to 14
14 the market. Ken helped his father load the baskets onto the family's boat. 27
27 Ken's family lived on a large island off the coast of Africa. They used the 42
42 boat to sail to market. 47
47 Ken jumped into the boat. His father pushed the old wood boat off 60
60 the sand and into the clear blue water. After climbing in, Ken's father 73
73 lifted the big triangle sail. The wind filled the cloth, pushing the boat out 87
87 to sea. The trip would take about an hour, so Ken sat down in the front 103
103 of the boat. There were often interesting plants and animals to see 115
115 along the way. He did not want to miss any of them. 127
127 Ken's father kept the boat close to the land. Ken could see clean 140
140 white beaches lined with coconut trees. A big sea turtle came up for 153
153 air near the boat. It went back under when the boat got closer. Before 167
167 long, Ken saw some dolphins. They raced beside the boat for several 179
179 minutes. Looking back at the coast, Ken saw some monkeys. They were 191
191 leaping from tree to tree. 196
196 The trip seemed too short. Ken's father turned the boat to the shore 209
209 and let the sail down. Ken heard the wood scrape on the sand. Now 223
223 it was time to take the fish to the market. Ken hoped they would sell all 239
239 their fish quickly. He wanted to sail in the boat again. 250

Figure 3.11: DORF Assessment

During retell, the learner is asked to tell about what he/she has read. Passage retell provides a valuable indicator of reading comprehension. The assessor indicates the number of words in the retell that are related to the passage by drawing through a box of numbers. Following a hesitation of 3 seconds, learners are prompted to tell as much as they can about the passage. If the learner hesitates again for 5 seconds or longer, or if the learner is clearly responding for 5 seconds in a way that is not relevant to the passage, the task is discontinued. The assessor must make a judgement about the relevance of the retell to the passage. Retell can be used from the middle of Grade 1 through to the end of Grade 6. A quality of response rating allows the assessor to make a qualitative rating of the quality of the learner's response. The rating should be based on how well the learner retold the portion of the passage that he/she read.

Table 3.10 shows the DORF benchmark goals for Grade 1 learners. These are the goals for Words Correct per minute, Accuracy, and Retell for Grade 1 learners. The goal at the middle of the year for Grade 1 learners is 27 words correct with 78% accuracy, and at the end of the year the goal for Grade 1 learners is 47 words correct with 90% accuracy and a retell score of 15.

Table 3.10: Grade 1 DORF Benchmark Goals and Cut Points for Risk

Score Level	Score	Beginning of Year	Middle of Year	End of Year
At or Above Benchmark	Words Correct		23+	47+
	Accuracy		78%	90%
	Retell		NA	15
Below Benchmark	Words Correct		16 – 22	32 – 46
	Accuracy		68% – 77%	82% – 89%
	Retell		NA	0 –14
Well Below Benchmark	Words Correct		0 – 15	0 – 31
	Accuracy		0% – 67%	0% – 81%
	Retell		NA	NA

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 129).

In Table 3.11 the DORF benchmark goals for Grade 2 learners are listed. The goal at the beginning of year for Grade 2 learners is 52 words with 90% accuracy and a retell score of 16. For the middle of the year the goal for Grade 2 learners is 72 words correct with 96% accuracy and a retell of 21 words, and at the end of the year the goal for Grade 2 learners is 87 words correct with 97% accuracy and a retell score of 27 words.

Table 3.11: Grade 2 DORF Benchmark Goals and Cut Points for Risk

Score Level	Score	Beginning of Year	Middle of Year	End of Year
At or Above Benchmark	Words Correct	52+	72+	87+
	Accuracy	90%	96%	97%
	Retell	16	21	27
Below Benchmark	Words Correct	37 – 51	55 – 71	65 – 86
	Accuracy	81% – 89%	91% – 95%	93% – 96%
	Retell	8 – 15	13 – 20	18 – 26
Well Below Benchmark	Words Correct	0 – 36	0 – 54	0 – 64
	Accuracy	0% – 80%	0% – 90%	0% – 92%
	Retell	0 – 7	0 – 12	0 – 17

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 130).

In Table 3.12 the DORF benchmark goals for Grade 3 learners are summarized. The minimum level for learners to be on track at the beginning of year for Grade 3 learners is 70 words with 95% accuracy and a retell score of 20 word per minute. For the middle of the year the goal for Grade 3 learners is 86 words correct with 96% accuracy and a retell of 26 words, and at the end of the year the goal for Grade 3 learners is 100 words correct with 97% accuracy and a retell score of 30 words.

Table 3.12: Grade 3 DORF Benchmark Goals and Cut Points for Risk

Score Level	Score	Beginning of Year	Middle of Year	End of Year
At or Above Benchmark	Words Correct	70+	86+	100+
	Accuracy	95%	96%	97%
	Retell	20	26	30
Below Benchmark	Words Correct	55 – 69	68 – 85	80 – 99
	Accuracy	89% – 94%	92% – 95%	94% – 96%
	Retell	10 – 19	18 – 25	20 – 29
Well Below Benchmark	Words Correct	0 – 54	0 – 67	0 – 79
	Accuracy	0% – 88%	0% – 91%	0% – 93%
	Retell	0 – 9	0 – 17	0 – 19

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 131).

DORF provides an indication of several basic early literacy skills. With the accuracy score, we can get a sense of the learner's ability to decode words with phonics patterns that are more advanced than those on NWF. The measure also provides an indicator of accurate and fluent reading of connected text. DORF is also a strong indicator of comprehension. It doesn't reveal everything about a learner's comprehension skills. But for the vast majority of learners, if they are accurate and fluent readers, they are likely to understand what they have read. The retell component provides an additional indicator of comprehension, and helps to identify the small number of learners for whom DORF may not be as good an indicator of comprehension (Good et al., 2013).

3.5.6 DIBELS daze

Daze provides an indicator of silent reading comprehension. It is a different way of measuring comprehension than DORF and provides an additional measure of comprehension. The stepping stones are leading to skilled reading and being able to truly understand what is read so that learners can read to learn (cf. Figure 3.3). As an assessment of reading comprehension, Daze provides an indication of whether or not a learner understands what he or she has read. Reading comprehension is the ultimate goal of all reading instruction and assessment activities. It is the ability to understand what is read by interacting with print. Comprehension is the complex process of gaining meaning from text for a variety of purposes (Pressley & Afflerbach, 1995). Reading comprehension is founded on and often defined by accurate and fluent reading of connected text. It involves successful language, verbal skills, the use of background knowledge, and working memory (Adams, 1990; LaBerge & Samuels, 1974). The Daze is the standardized, DIBELS version of maze procedures for measuring reading comprehension (cf. Table 3.13). The purpose of a maze procedure is to measure the reasoning processes that constitute comprehension. Specifically, Daze assesses the learner's ability to construct meaning from text using word recognition skills, background information and prior knowledge, familiarity with linguistic properties such as syntax and morphology, and reasoning skills.

Table 3.13: Overview of DIBELS DAZE

Basic Early Literacy Skill	Reading comprehension
Administration Time	3 minutes
Administration Schedule	Beginning of Grade 3 to end of Grade 6
Score	Number of correct words in 3 minutes minus half the number of incorrect words

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 100).

Daze can be given to a whole class at the same time, to a small group of learners, or to an individual learner. Using standardized directions, the learners in the class are asked to read a passage and circle the words that makes the most sense in the story. Three choices of missing words are given (cf. Figure 3.12). The learner has to circle the word that makes the most sense. The score is the number of correct responses, minus half the number of incorrect responses, which compensates for learners guessing. By design, approximately every seventh word in the Daze passages has been replaced by a box containing the correct word and two distractor words.

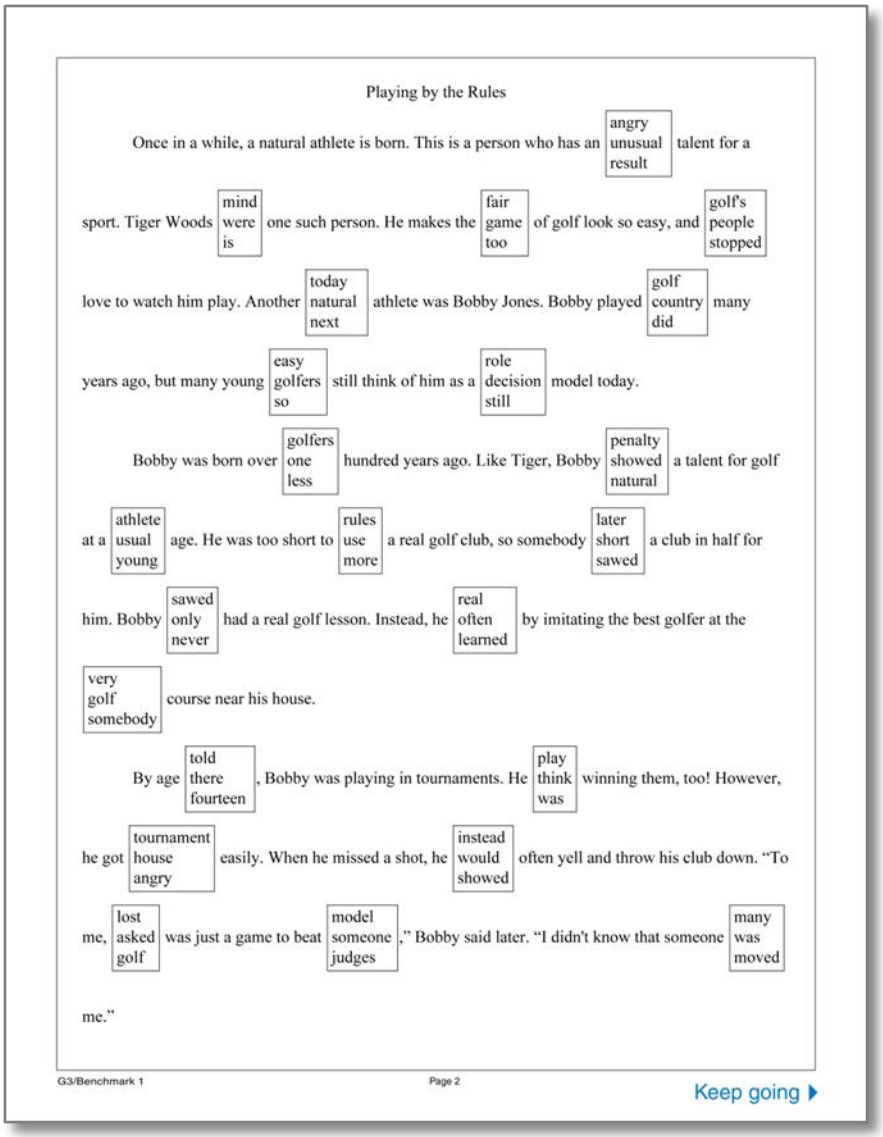


Figure 3.12: DAZE Assessment

The learner receives credit for selecting the words that best fit the omitted words in the reading passage. A scoring key is used for scoring, learners receive 1 point for

each correct word that is circled. Put a slash through words that are incorrect. Incorrect responses include errors, boxes with more than one answer, and items left blank that are blank because they were skipped. The scores that are recorded are the number of correct and incorrect responses. An adjusted score, which compensates for guessing, is calculated based on the number of correct and incorrect responses.

The benchmark goals for the beginning, middle and end of Grade 3 are listed in Table 3.14. The goal for Grade 3 learners at the beginning of the year is 8, in the middle of the year the goal is 11, and by the end of Grade 3 the goal for the learners is 19.

Table 3.14: DAZE Benchmark Goals and Cut Point for Risk

Grade	Score Level	Beginning of Year	Middle of Year	End of Year
Grade 3	At or Above Benchmark	8	11	19
	Below Benchmark	5 – 7	7 – 10	14 – 18
	Well Below Benchmark	0 – 4	0 – 6	0 – 13

(Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2012, p. 131).

Daze assesses the learner's ability to construct meaning from text using word recognition skills, background information and prior knowledge, familiarity with linguistic properties such as syntax and morphology, and cause and effect reasoning skills. Daze is a 3-minute indicator of reading comprehension and is an easy measure to learn to administer and score. The measure can be group-administered for benchmark assessment, or individually administered for progress monitoring.

3.6 DIBELS Next in action: Analysing a learner scoring booklet

The information gained from looking through a learner's booklet is the key to unlocking the door of reading for the individual child. The learner's deficits or possible areas of concern are easily identified from looking through the booklet.

Making decisions about the learner's reading success must come from more than looking at the score on the front of the cover (cf. Figure 3.13).

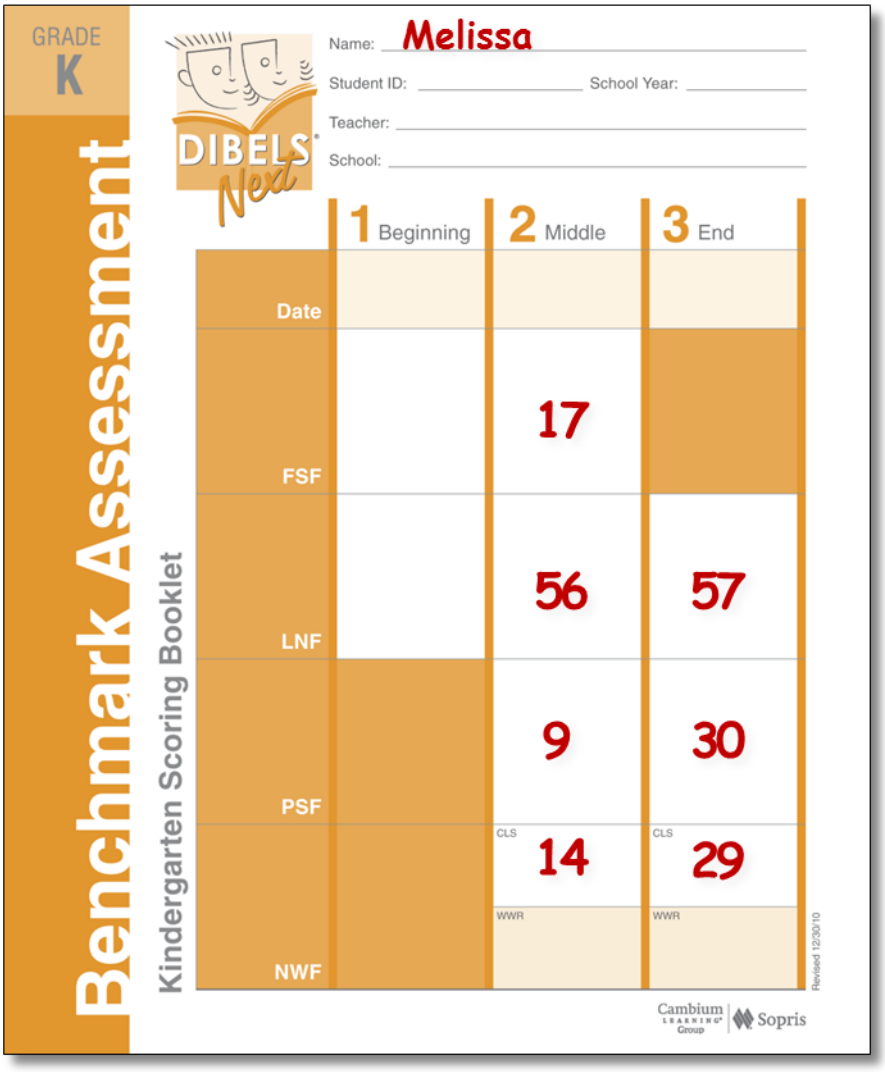


Figure 3.13: Cover of Grade R Scoring Booklet

The DIBELS learner scoring booklets offer much more than numerical scores. Looking inside the booklet at the scoring details can also reveal if a benchmark learner exhibits desirable reading behaviours or if the learner met the benchmark level but has potential problems, such as responding quickly but with low accuracy rate. In order to make informed decisions about learners, teachers need to analyse the DIBELS soring booklets. In fact, teachers should be encouraged to write all over their learners scoring booklets and note what the learners said when making errors, if possible, as long as it doesn't interfere with the standardized procedure. The time spent analysing the errors is valuable because teachers cannot afford to waste any

time reteaching a skill that the learners have mastered or, worse yet, missing a skill that is critical.

The following process for analysing a DIBELS scoring booklet helps teachers learn as much as possible from having given the DIBELS assessment. The procedure for analysing a DIBELS learner scoring booklet includes four steps:

Step 1: Review the Composite Score

The first step in this procedure is to compare a learner's Composite Score to the Composite Score Benchmark goal. The Composite Score gives an overall indication, by looking at all the indicators together, of how well the learner is acquiring literacy skills at that point in time. It tells the teacher whether the learner is on track overall. Meeting the Composite Score Benchmark Goal level tells the teacher that considering the information known at this time period, the learner is predicted to read well at a later time point. This step can be completed by looking at the cover of the Benchmark Assessment Scoring Booklet. The purpose of this step is to get an overall sense of how well the learner is doing before diving into the details to look for any concerns or weaknesses.

Step 2: Review the indicator scores

In this step, teachers must look for any areas where the data are inconsistent. Inconsistencies occur when a higher-level skill develops before an underlying one, or when related skills are not equally strong or weak for example:

- PSF above benchmark, FSF low. Normally, the ability to segment and identify initial sounds develops before a learner can segment all the sounds in a word.
- High NWF, low PSF and LNF. Generally, learners with a high NWF will have already developed a strong fluency with phoneme segmentation and letter naming.
- High DORF Words Correct per minute with high accuracy, low NWF. Typically, learners with DORF scores above benchmark are proficient in applying letter-sound correspondences in reading nonsense CVC words.

- High Retell, low Daze. This would be unusual because both indicators measure reading comprehension. For most learners it's easier to comprehend while reading silently (Daze) than to comprehend while reading aloud (Retell).

By identifying these inconsistencies first before diving into the learner scoring booklet, the process of studying the scoring pages for each of the indicators will be more directed toward seeking answers to inconsistencies and questions.

Step 3: Analysing each indicator scoring page

During step 2 a sense of the learner's skills are gained by comparing his or her individual indicator score to the indicator Benchmark Goals for each measure that was given and generating questions. Now the analysis turns into details. Each page of the learner's booklet must be studied to look at the mistakes the learner made. Teachers can start by looking at the learner's accuracy and fluency rates on the individual indicator and teachers can look at mistakes the learner made and try to identify any error patterns. Things like, what part is the learner consistently getting wrong. From this, some conclusions can be reached about possible deficit areas.

Step 4: Record observations on summary sheet

Teachers often like to use a chart to summarize observations from their analysis. Table 3.15 shows a template of a sample sheet with a place to note observations on each indicator, implications for instruction, and next steps.

One of the conclusions you may reach is that a learner's performance on DIBELS seems inconsistent or difficult to interpret. When in doubt, the best is to reassess to check the reliability of the results. The confidence from a pattern of performance is higher than from a single score.

In order to describe an approach of analysing a learners scoring booklet, it is helpful to use an example of a learner's scoring booklet to describe the approach. Melissa's, a Grade R learner, scoring booklet is used for analysis purposes. Table 3.16 contains a summary of Melissa's scores from the middle- and end of the year benchmark assessments.

Table 3.15: Summary Sheet to Record Observations of a Learner's Scoring Booklet

DIBELS Indicator	Observations	Instructional Implications or steps forward
First Sound Fluency (FSF)		
Letter Naming Fluency (LNF)		
Phoneme Segmentation Fluency (PSF)		
Nonsense Word Fluency (NWF)		
DIBBELS Oral Reading Fluency (DORF)		
Daze		

Table 3.16: Summary of Melissa's Scores

Grade R DIBELS Indicator		Melissa		Benchmark Goals	
		Middle of the year (MOY)	End of the year (EOY)	Middle of the year (MOY)	End of the year (EOY)
FSF		17		30	
LNF		56	57		
PSF		9	30	20	40
NWF	CLS	14	29	17	28
	WWR				
Composite Score		96	116	122	119

Step 1: Review the Composite Score

Melissa's Composite Score was below benchmark at both the middle of the year and the end of the year. It is important to note that it's not appropriate to compare Composite Scores from one time period to another. For example, Melissa's Composite Score went from 96 in the middle of the year to 116 at the end of the year. It is not possible to conclude that Melissa's reading performance improved because of the 20-point gain in the Composite Score. There are two reasons that reaching this conclusion isn't valid. First, in many cases, the number of indicators change from one time period to another. Second, the benchmark expectations are different in every period. Comparing the Composite Score at an assessment period to the benchmark Composite Score for that same time period is the best way to use these composites. They take into account the Benchmark Goals for all the individual indicators and consolidate them into one score. It's possible to look at whether a learner closed the gap between her score and the benchmark. For example, a learner whose score was way below the composite benchmark in one period and just barely below it at the next benchmark is most likely improving.

Step 2: Review the Indicator Scores

Melissa's Composite Score was below benchmark in both the middle- and end of the year assessment. This merits examining her scores on each indicator. Melissa's middle of the year scores are as follows:

- **FSF – 17** (Below the Cut Point for Risk and it is likely that she may need intensive support);
- **LNF – 56** (LNF is a risk indicator but not an instructional benchmark);
- **PSF – 9** (Below the Cut Point for Risk and it is likely that she may need intensive support); and
- **NWF-CLS – 14** (Between the Cut Point for Risk and the Benchmark and it is likely that she may need Strategic Support).

Melissa exhibited strong Letter Naming Fluency at the middle of the year with a LNF score of 56. Although this score stayed about the same at the end of the year, they are both fairly strong. It's possible that Melissa was taught about letter names at

home or in pre-school. In spite of her strong letter naming scores, there is reason to be concerned about her phonological awareness skills. At the middle of the year, her First Sound Fluency (FSF) score of 17 was well below the Benchmark Goal of 30. Phoneme Segmentation Fluency (PSF) was also low at the middle of the year. Both scores are well below benchmark, indicating that she is behind where we'd like her to be in phonemic awareness.

Melissa's DIBELS scores indicate that she may need intensive support in phonological awareness because she scored below the Cut Point for Risk in both FSF and PSF. Additional diagnostic assessment can validate this recommendation and inform her teacher about what she has learned in the area of phonological awareness. Is she aware of syllables or onset-rime units in words? Her NWF score was relatively higher than her phonemic awareness scores. It's possible that her higher letter naming skills enabled her to perform comparatively better on NWF-CLS than would have been expected from her low phonemic awareness scores. This is a common pattern in learners scores because of the similarity of many letter sounds and names.

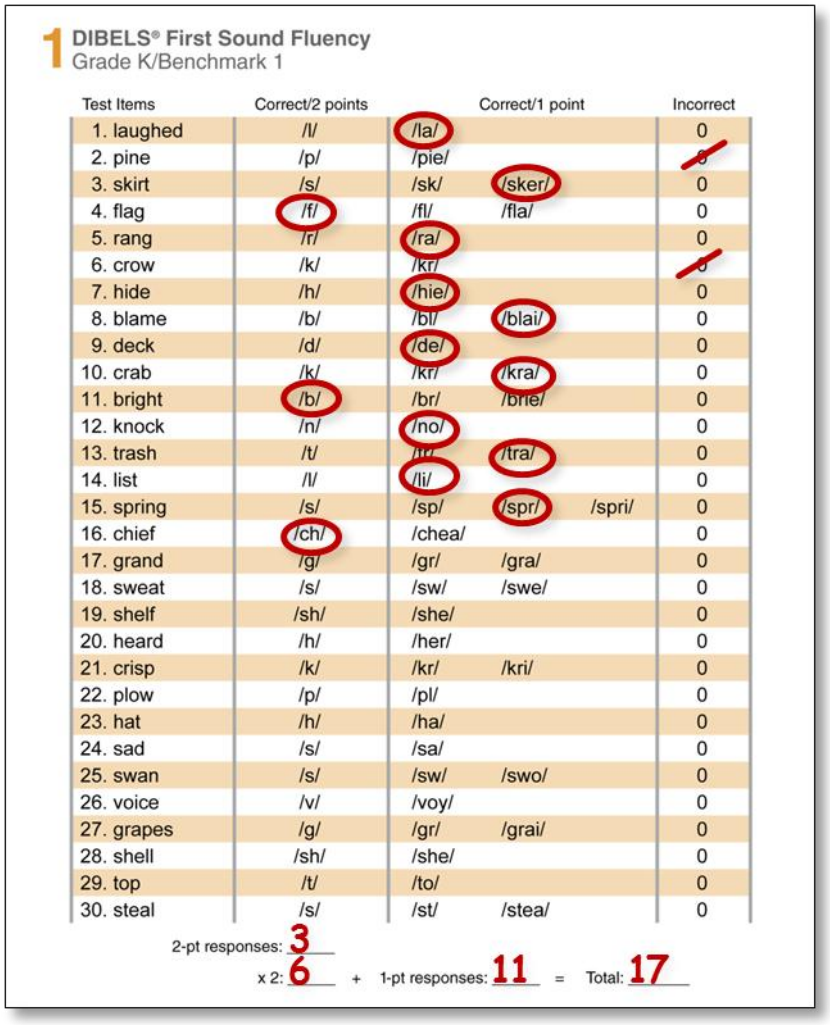
Melissa's PSF scores did improve over the second half of the year, increasing from 9 to 30. In spite of improvement, she did not perform well enough to reach the Benchmark Goal of 40 at the end of the year. Since her score at the middle of the year indicated a need for intensive support, she should have been placed in an intervention group to receive help with phonological awareness. Given that she has not reached benchmark at the end of the year, it is critical to know more about the type of phonological awareness instruction she was receiving while participating in the intervention group. It's important to know about the type of instruction she was receiving and how the other learners in the group performed. If they caught up and she didn't, this is a red flag that Melissa is at risk of later difficulties.

Step 3: Analysing each indicator scoring page

In Step 2, it was noted that Melissa lacked phonological awareness, below-benchmark level of letter-sound associations, and high letter naming skills. The next step is to open the booklet and study each page. The first page in the Grade R benchmark learner scoring booklet is First Sound Fluency (cf. Figure 3.14 for a FSF

probe for Melissa (MOY)). Below are some questions teachers can ask to guide them in the analysis of the learner's performance on this indicator.

How accurate is the learner with initial sounds? Melissa had difficulty with this skill in the middle of the year. Her score of 17 placed her not only below the Benchmark Goal of 30, but also below the Cut Point for Risk of 20. The next step is to calculate an accuracy rate for segmenting initial sounds. For purposes of this step, we'll assume that accuracy is defined as getting the maximum possible 2-point score by answering with a single phoneme sound. The accuracy rate is calculated by dividing the correct points by the maximum number of points possible if she had answered all attempted words with a 2-point correct response. In 1 minute, Melissa attempted 16 words and would have earned 32 points if all her responses had contained only the correct initial sound segment with no other sound attached to it. Melissa's accuracy rate is her FSF score divided by the maximum number of points she could have gotten if all her answers had been 2-point responses (16 x 2 points for each response = 32): 17 points / 32 = 53% accuracy. This low accuracy rate signals the need to take a close look at how she achieved this score.



1 DIBELS® First Sound Fluency
Grade K/Benchmark 1

Test Items	Correct/2 points		Correct/1 point		Incorrect
1. laughed	/l/	/la/			0
2. pine	/p/	/pie/			0
3. skirt	/s/	/sk/	/sker/		0
4. flag	/f/	/fl/	/fla/		0
5. rang	/r/	/ra/			0
6. crow	/k/	/kr/			0
7. hide	/h/	/hie/			0
8. blame	/b/	/bl/	/blai/		0
9. deck	/d/	/de/			0
10. crab	/k/	/kr/	/kra/		0
11. bright	/b/	/br/	/brie/		0
12. knock	/n/	/no/			0
13. trash	/t/	/tr/	/tra/		0
14. list	/l/	/li/			0
15. spring	/s/	/sp/	/spr/	/spri/	0
16. chief	/ch/	/chea/			0
17. grand	/g/	/gr/	/gra/		0
18. sweat	/s/	/sw/	/swe/		0
19. shelf	/sh/	/she/			0
20. heard	/h/	/her/			0
21. crisp	/k/	/kr/	/kri/		0
22. plow	/p/	/pl/			0
23. hat	/h/	/ha/			0
24. sad	/s/	/sa/			0
25. swan	/s/	/sw/	/swo/		0
26. voice	/v/	/voy/			0
27. grapes	/g/	/gr/	/grai/		0
28. shell	/sh/	/she/			0
29. top	/t/	/to/			0
30. steal	/s/	/st/	/stea/		0

2-pt responses: 3
x 2: 6 + 1-pt responses: 11 = Total: 17

Figure 3.14: First Sound Fluency (FSF) probe for Melissa (MOY)

How fluent is the learner with initial sounds? Melissa reached 16 words in a minute. The Benchmark Goal for the middle of the year is 30, which can be earned with a combination of 1- and 2-point answers. If a learner earns a score entirely with 1-point answers, she would have to attempt 30 words in 1 minute to meet the Benchmark Goal. Melissa reached 16 of the 30 words, so she is also not particularly fluent at this skill.

What percentage of the responses earned a 2-point answer? Melissa earned a 2-point score for only 3 of the 16 words she attempted before the minute was up. Melissa's performance on naming only the initial sound is: 3/16 total words attempted = 19% of points from initial sound isolation. This indicates that she is not segmenting solely the initial sound in very many of her answers.

Are there any other unusual error patterns? One possible pattern to observe is whether the learner performed better on two-consonant blends than on three-consonant blends. This pattern was not present for Melissa as she did as poorly on initial blends that had two consonants as she did on those with three consonants. Other possible patterns include scoring lower on the more difficult items that contain continuant sounds at the beginning of the word versus stop sounds, which are easier to isolate. Stop sounds include /b/, /d/, /p/, /t/, /k/, and /g/. Continuant sounds are those that can be said until running out of breath, such as /s/, /m/, /n/, /f/, and /z/. Some learners find it easier to segment a stop sound from the vowel that follows it versus a continuant sound, which feels a bit more like it runs into the vowel.

The second indicator for the Grade R benchmark is Letter Naming Fluency (LNF). Figure 3.15 and Figure 3.16 show the LNF probes for Melissa (MOY and EOY). Below are some questions teachers can ask to guide them in the analysis of the learner's performance on this indicator.


1 DIBELS® Letter Naming Fluency
Grade K/Benchmark 1

s	J	z	v	e	X	T	t	V	D
f	F	W	Q	P	q	I	c	O	o
R	n	B	w	g	E	d	u	p	y
S	m	x	L	k	Z	a	X	H	j
i	K	U	M	G	r	A	N	h	C
I	b	S	F	f	u	L	A	m	B
V	T	Y	G	e	W	E	a	N	X
l	b	M	C	q	z	P	x	i	Q
g	J	O	s	d	Z	K	o	v	j
D	t	h	w	R	U	c	r	I	k
n	H	y	p	s	J	z	v	e	X

Total Correct: 56

LNF Response Patterns:

- ☐ Makes random errors
- ☐ Makes consistent errors on specific letter(s)
- ☐ Says letter sound instead of letter name
- ☐ Doesn't track correctly
- ☐ Other

Figure 3.15: Letter Naming Fluency (LNF) probe for Melissa (MOY)

Figure 3.16: Letter Naming Fluency (LNF) probe for Melissa (EOY)

How accurate is the learner in letter naming? In the middle of the year, Melissa got 56 correct out of the 58 letters that she attempted to name. Melissa's accuracy rate can be calculated as follows: 56 correct words / 58 letters attempted = 97% accuracy rate. At the end of the year she attempted 57 and got them all correct for a 100% accuracy. She is accurate in letter naming.

How fluent is the learner in naming letters? At the middle of the year, Melissa attempted 58 letters in 1 minute, which is a relatively fast time for that point in the year. At the end of the year, she attempted just one less letter and got them all correct. Letter naming fluency is an area of strength for Melissa.

Is there a pattern of missing letters that are harder because they are used infrequently? At the middle of the year, Melissa missed "y" and "q", both of which are less frequently used letters. She didn't miss any letters at the end of the year.

Did the learner miss more lowercase letters than uppercase letters? Of the two letters Melissa missed at the middle of the year, one was uppercase and the other

was lowercase. Therefore, there is no pattern of missing more lowercase letters than uppercase ones as it is the case with some learners.

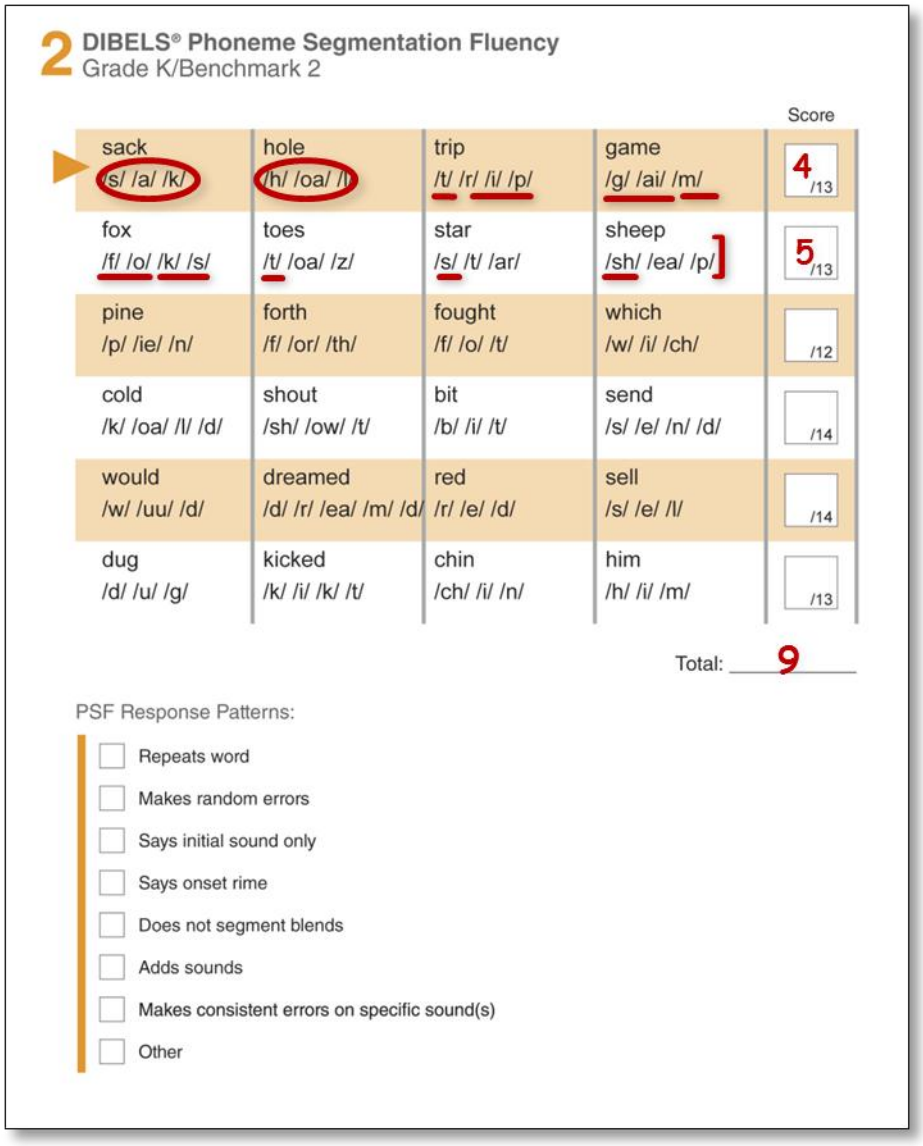
Does the learner get any letter correct one time and incorrect another time? Melissa missed only two letters, and they were different ones. This error pattern is not present for her.

Phoneme Segmentation Fluency (PSF) is the third indicator given at the middle and end of the Grade R benchmark assessment (cf. Figure 3.17). The main focus of the analysis on this indicator will be on whether the learner fully or partially segments the sounds in words. It is important to look for evidence that the learner understands the concept behind segmentation. Does the learner know how to segment, or does she simply repeat the whole word back? A score of 0 can indicate two different things. First, it may indicate that the learner repeated the entire word back; if this was the case then each word would be circled and a score of 0 would be recorded. The second option is that the learner attempted to segment but was unsuccessful on all items. If this happened, the scoring booklet would look different. Instead of circles around all words, there would be slash marks through each of the words. If a learner gets a score of 0, the teacher needs to look inside the booklet to see whether the learner repeated words back or attempted to give sounds but got them all incorrect.

After confirming that the learner understands how to segment, look to see whether the learner partially or fully segments. Partial segmentation is indicated when there are lines under some individual sounds, yet other segments include several sounds together. Sometimes learners don't segment consonant blends (e.g., *st, pr, cl,* and *br*), or they segment by onset and rime (e.g., *s-at, br-ush*) without going to the phoneme level. In analysing the results, it's important to note whether the learner demonstrated proficiency in initial sounds, ending sounds, and middle vowels.

Does the learner know how to segment phonemes? Melissa appears to know how to segment because there are lines under the individual phonemes. At the middle of the year, she struggled a bit at the beginning of the assessment; note that the first two words are circled, which means that she repeated the whole word back instead of segmenting any sounds. Because she began segmenting with the third word and didn't resort back to repeating whole words, she may simply have been

confused at the outset about the task. She segments some sounds in the other six words she reached. Her score of 9 was well below the Benchmark Goal of 20 and just below the Cut Point for Risk of 10. By the end of the year she improved to 30 and moved above the Cut Point for Risk of 25, but she remained below the Benchmark Goal of 40. She didn't repeat any whole words at the end of the year.



2 DIBELS® Phoneme Segmentation Fluency
Grade K/Benchmark 2

				Score
sack /s/ /a/ /k/	hole /h/ /oa/ /l/	trip /t/ /r/ /i/ /p/	game /g/ /ai/ /m/	4 /13
fox /f/ /o/ /k/ /s/	toes /t/ /oa/ /z/	star /s/ /t/ /ar/	sheep /sh/ /ea/ /p/	5 /13
pine /p/ /ie/ /n/	forth /f/ /or/ /th/	fought /f/ /o/ /t/	which /w/ /i/ /ch/	/12
cold /k/ /oa/ /l/ /d/	shout /sh/ /ow/ /t/	bit /b/ /i/ /t/	send /s/ /e/ /n/ /d/	/14
would /w/ /uu/ /d/	dreamed /d/ /r/ /ea/ /m/ /d/	red /r/ /e/ /d/	sell /s/ /e/ /l/	/14
dug /d/ /u/ /g/	kicked /k/ /i/ /k/ /t/	chin /ch/ /i/ /n/	him /h/ /i/ /m/	/13

Total: 9

PSF Response Patterns:

- [ ] Repeats word
- [ ] Makes random errors
- [ ] Says initial sound only
- [ ] Says onset rime
- [ ] Does not segment blends
- [ ] Adds sounds
- [ ] Makes consistent errors on specific sound(s)
- [ ] Other

Figure 3.17: Phoneme Segmentation Fluency (PSF) probe for Melissa (MOY)

How many times does the learner partially segment rather than completely segment the word? Melissa demonstrated partial segmentation consistently. Sometimes she segmented at the onset-rime level. Additionally, she kept consonant blends together. Because many teachers teach blends as units, it's not uncommon to see this error. While blends are taught as a unit for spelling, it's important to teach

them as separate sounds for phonemic awareness. With direct, systematic instruction, most learners quickly learn how to segment consonant blends into two or three separate sounds.

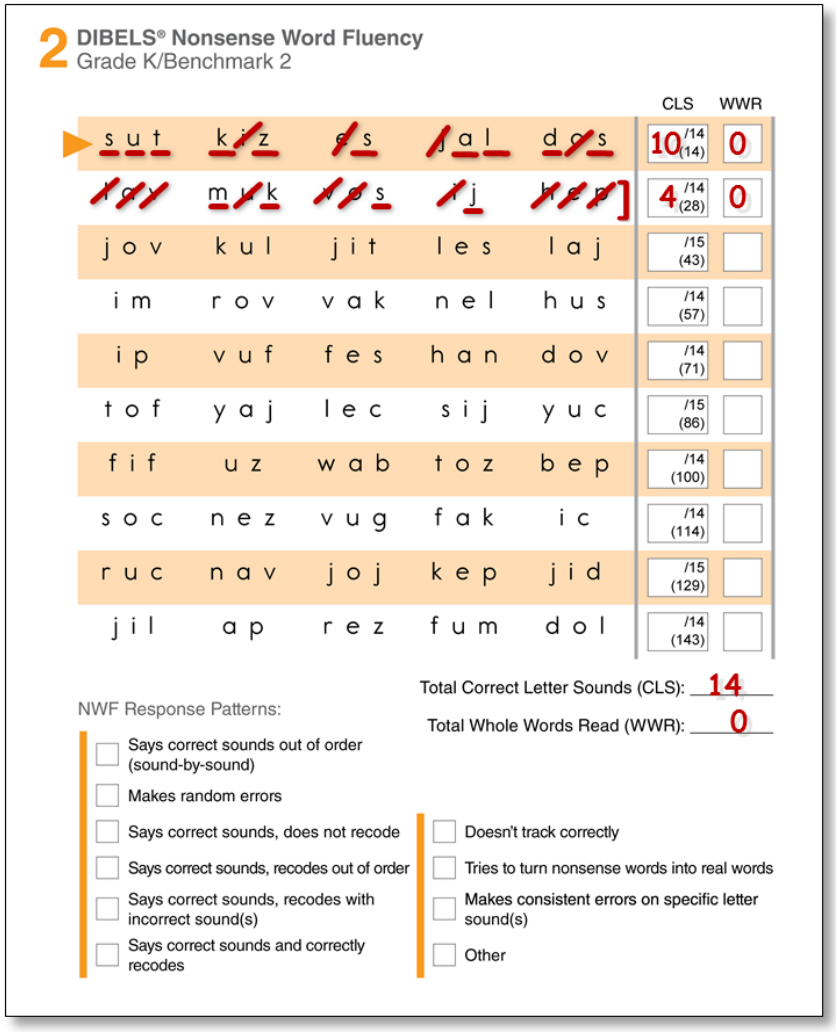
How accurate is the learner in segmenting phonemes? Melissa's accuracy is an issue because, at the middle of the year, she got only 9 correct out of the 26 phonemes she attempted. Her accuracy rate is: 9 correct / 26 attempted = 35% accuracy rate. This is a very low accuracy rate.

How fluent is the learner in segmenting phonemes? Fluency is determined by whether the learner's pace allowed her to attempt at least the required number of items so that if they were all correct, the score would have been at benchmark. At the middle of the year, Melissa was fluent enough because she attempted 26 phoneme segments in 1 minute. If she were 100% accurate with a score of 26, she would exceed the benchmark of 20.

How accurate is the learner's knowledge of initial sounds? Melissa demonstrates a strong awareness of the initial sounds in the words. She got all the initial sounds correct in the words she was given.

The next indicator is Nonsense Word Fluency (NWF), it is not given at the beginning of Grade R so the middle of the year is the first time that learners are assessed with this measure (cf. Figure 3.18). Although the learner scoring booklet has a place for it and it's helpful to calculate both the WWR (Whole Words Read) scores and CLS (Correct Letter Sounds) in Grade R, there is no benchmark for WWR until Grade 1.

How accurate is the learner's knowledge of letter-sound correspondences? Melissa is struggling at the letter-sound correspondence accuracy level. Let's examine her accuracy rates at the middle of the year: 14 correct / 29 attempted = 48% accuracy rate. Melissa's accuracy rate is not strong enough; accuracy rates should be above 95% to elicit no concerns in this area. Melissa's intervention instruction should focus on building accuracy and then fluency at associating sounds with letters.



2 DIBELS® Nonsense Word Fluency
Grade K/Benchmark 2

					CLS	WWR
s u t	k i z	e s	j a l	d o s	10 /14 (14)	0
x o v	m i k	n o s	x j	h e p	4 /14 (28)	0
j o v	k u l	j i t	l e s	l a j	/15 (43)	
i m	r o v	v a k	n e l	h u s	/14 (57)	
i p	v u f	f e s	h a n	d o v	/14 (71)	
t o f	y a j	l e c	s i j	y u c	/15 (86)	
f i f	u z	w a b	t o z	b e p	/14 (100)	
s o c	n e z	v u g	f a k	i c	/14 (114)	
r u c	n a v	j o j	k e p	j i d	/15 (129)	
j i l	a p	r e z	f u m	d o l	/14 (143)	

Total Correct Letter Sounds (CLS): 14

Total Whole Words Read (WWR): 0

NWF Response Patterns:

- ☐ Says correct sounds out of order (sound-by-sound)
- ☐ Makes random errors
- ☐ Says correct sounds, does not recode
- ☐ Says correct sounds, recodes out of order
- ☐ Says correct sounds, recodes with incorrect sound(s)
- ☐ Says correct sounds and correctly recodes
- ☐ Doesn't track correctly
- ☐ Tries to turn nonsense words into real words
- ☐ Makes consistent errors on specific letter sound(s)
- ☐ Other

Figure 3.18: Nonsense Word Fluency (NWF) probe for Melissa (MOY)

How fluent is the learner in reading nonsense words? Fluency in NWF is not a problem for Melissa at this assessment time period. At the middle of the year, she attempted 29 letter-sound correspondences, which is almost twice the 17 CLS-per-minute benchmark. By looking at this adequate level of fluency it focuses the attention even more on accuracy.

How accurate is the leaner's knowledge of initial letter sounds? Melissa struggled with initial sounds in six of the ten words attempted.

Step 4: Record Observations on summary sheet

Based on the DIBELS data, which skills appear to be a concern? Melissa is below benchmark on FSF and PSF. Because Melissa had accuracy issues on phonemic awareness, she is a candidate for additional assessment in the area of phonological

awareness. It is hard to tell from these data exactly where to begin her intervention instruction. Intervention will need to include more rapid and automatic identification and pronunciation of initial phonemes in target words. However, she may be struggling with syllables and onset-rime segmentation, blending, and production as well. Diagnostic screening would help to pinpoint exactly which skills she has mastered and which she is still struggling to learn. Informal observation of a learner's response to instruction should corroborate the assessment findings. By observing errors on repeated progress monitoring assessments of the FSF and PSF indicators, the teacher can continue to observe the pattern of responses and confirm any original impressions about appropriate intervention instruction.

3.7 Summary

The National Reading Panel (2000) reported that without early identification of reading difficulties it will hinder learning and the enjoyment of reading that will persist into adulthood unless intensive interventions are provided. Effective assessment is a key aspect of early identification. Educational policies place increasing emphasis on high-stakes achievement outcomes, programme evaluation, and instructional accountability making highly predictive and accurate assessment measures invaluable tools for school improvement and increased achievement. DIBELS has been celebrated as such a tool. DIBELS is not a curriculum or an intervention. It is the use of the DIBELS data that should inform decisions about instruction. Learners who meet the benchmark goals are on track for future reading success. Not meeting the benchmark goals indicates a change to instruction is needed.

This chapter has described the rationale for using DIBELS and the assessment of the Basic Early Literacy Skills using DIBELS. A detailed discussion is also included on the analysis of a DIBELS scoring booklet and how to use this assessment to make data-based decisions.