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Understanding DIBELS: Purposes, Limitations, and Alignment of Literacy Constructs to Subtest Measures by Rebecca Lynn Garvelink August 2018

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Degree of Master of Education

Abstract

DIBELS Next is frequently used as a universal screening and progress monitoring tool within a Response to Intervention (RTI) framework. Unfortunately, some misguided educational professionals are not utilizing the assessments as they have been intended, resulting in defective instructional practices and faulty decision-making. In order for DIBELS to be used effectively, teachers must have advanced knowledge regarding assessment practices, understand data analysis and interpretation, and deliver instruction that can positively influence the reading development of at-risk learners. The intent of this project is to provide educators with an understanding of the appropriate uses and limitations of DIBELS. Additionally, this project sets out to align each DIBELS subtest with its corresponding literacy construct. The concepts of phonemic awareness, phonics, and reading fluency are fully defined and general instructional recommendations are provided for each. Finally, a sample of teaching strategies that can be utilized to support the needs of students experiencing difficulties in each of these areas is highlighted.

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Chapter One: Introduction

Problem Statement

The *Dynamic Indicators of Basic Early Literacy Skills* or DIBELS Next (Good et al., 2011) is a highly utilized screening assessment that has been frequently criticized, as it is fraught with misconceptions of its intended purpose and how the data should be used to inform instruction (Amendum, Conradi, & Pendleton, 2016; Deeney, 2010; Kaminski & Cummings, 2007; Shanahan, 2018). In this era of educational accountability, controversy and pressure have resulted in many inappropriate uses and faulty decision-making by teachers (Amendum et al., 2016; Deeney, 2010; Kaminsky & Cummings, 2007).

DIBELS measures have come under fire because of the focus on discrete parts of the overall reading process rather than literacy as a whole (Amendum et al., 2016; Kaminsky & Cummings; 2007; Shanahan, 2018). Teachers are misunderstanding the purpose of the universal screening assessment, "While it is important to understand the individual subtest measures, it is even more vital to understand how each fits into the larger picture of reading development" (Amendum et al., 2016, p. 285). With an emphasis on specific measures, teachers unwittingly have limited instruction solely to these components (Deeney, 2010; Kaminsky & Cummings. 2007; Samuels 2007).

Importance and Rationale of the Project

DIBELS usage is incredibly wide-spread in this country, the DIBELS website indicates that approximately twenty-five percent of students within the United States are assessed using this system (Kaminski & Good, 2018). It is imperative that users

of DIBELS, especially educators, understand the intended purpose of DIBELS and how to effectively interpret the data for decision-making (Amendum et al., 2016; Hoffman, Jenkins, & Dunlop, 2009; Kaminsky & Cummings, 2007; Shanahan, 2018). Kaminsky and Cummings (2007) emphasize that a glaring misapplication of DIBELS is the use of data for high-stakes decisions at either an individual-level or a systems-level. The authors are adamant that the assessment is not meant to be used as a means for grading, retention, or tracking of students, nor should it be used to evaluate teachers or serve as the basis for funding.

Furthermore, DIBELS subtests have resulted in compromised 'instructional validity,' referring to the inappropriateness of subsequent instruction that has been based upon these measures (Shanahan, 2018). Teachers have begun to teach to the test rather than focusing on the underlying literacy construct the measure is meant to be an indication of (Amendum et al., 2016; Kaminski & Cummings, 2007; Shanahan, 2018). Additionally, because the subtests are so widely used, the assessments are beginning to define the actual literacy constructs, resulting in a narrow view and a misunderstanding of readers' development and instructional needs (Deeney, 2010; Shanahan, 2018). The DIBELS subtests are meant to be indicators of student reading performance rather than an identified trajectory of discrete skills, "the powerful predictive validity of the measures does not mean that their content should become the sole components of our instruction" (Kaminski & Cummings, 2007, p. 5).

When used appropriately the DIBELS assessment, as a universal screener and progress monitoring tool, can be an effective method for identifying students at-risk

for reading difficulties and developing instructional supports as part of the Response to Intervention (RTI) approach (Amendum et al., 2016; Good et al., 2011; Shapiro et al., 2012). RTI is largely utilized in schools, but in order to be effective, teachers, administrators, and members of problem-solving teams must have advanced knowledge regarding reading assessment, data interpretation, and intervention (Amendum et al., 2016; Fuchs & Fuchs, 2006). This approach requires a positive presupposition that practitioners will be reflective and responsible while utilizing the collected data to inform appropriate intervention and thus plan effective instruction (Amendum et al., 2016; Fuchs & Fuchs, 2006; Shanahan, 2018).

Background of the Project

According to the National Assessment of Educational Progress (NAEP) assessment, only thirty-seven percent of fourth-graders and thirty-six percent of eighth-graders performed at or above the proficiency level in 2017 (NAEP, 2018). Furthermore, it is estimated that about ten million children will have difficulties learning to read (Drummond, 2005). The prevalence of reading difficulties in children has spurred research and legislation, to develop a means to identify students at-risk for reading failure and to support their needs (Fuchs & Deno, 1991; Sopko, 1992; Shapiro et al., 2012).

Curriculum-Based Measurement

Good et al. (2011), the authors of DIBELS, indicate the beginning phases of research and development for DIBELS occurred in the late 1980s and early 1990s.

They further explain that the DIBELS assessment is based off of the foundational

research and assessment procedures known as curriculum-based measurement, or CBM. Curriculum-based measures are used to detect increases in achievement, or lack thereof to further inform instruction, "the essential purpose of CBM has always been to aide teachers in evaluating the effectiveness of instruction they provide to individual students" (Deno, 2003, p. 3). Deno (2003) affirms that CBM was initially designed to be used by special education teachers to reflect on whether or not interventions provided to those students were effective in improving their academics.

Good et al. (2011) also indicate that DIBELS employs the idea of general outcome measures. CBM assessments tend to provide information on either specific subskill mastery, or general outcome measures (Fuchs & Deno, 1991). Fuchs and Deno (1991) describe general outcome measures as "the assessment of proficiency on global outcomes" (p. 493). These measures do not specify what subskills may or may not be mastered, but instead indicate improvements in general proficiency, such as reading proficiency. The DIBELS assessment is a general outcome measure to indicate whether or not students are at-risk based on their overall reading proficiency (Good et al., 2011). CBM measures developed during this time frame provided an opportunity for practitioners to utilize efficient and economical assessments that provide data regarding student performance as well as a way to evaluate instructional decision-making (Deno, 2003; Fuchs & Deno, 1991).

The Reading First Initiative

The No Child Left Behind Act (NCLB) was an educational reform policy that focused largely on strong school accountability measures and implementing research-

based instructional methods (Hoffman et al., 2009). The Reading First initiative was a cornerstone of NCLB, with an intent to improve the reading skills of children in kindergarten through third grade (Shelton, Altwerger, & Jordan, 2009; Sopko, 2002). The findings of the National Reading Panel (NRP) served as the basis for many of the provisions found within the Reading First guidelines (Hoffman et al., 2009; Shanahan, 2003; Shelton et al., 2009). The NRP identified five essential components to reading instruction including: phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Institute of Child Health and Human Development, 2000). One of the key provisions of Reading First was the requirement for schools to use an assessment that provides screening, diagnostic, and progress monitoring information to ensure appropriate reading progress for students (Sopko, 2002).

DIBELS is one such example of a comprehensive, scientifically-based assessment approved for use to meet the requirements set forth in Reading First (Hoffman et al., 2009; Manzo, 2005; Shelton et al., 2009).

The use of DIBELS in Reading First schools became surrounded in controversy (Manzo, 2005; Olson, 2007; Shelton et al., 2009). The DIBELS assessment was deemed the assessment of choice for Reading First schools, with approval across 45 states (Olson, 2007), and usage in the majority of the 4,800 schools taking part in the initiative (Manzo, 2005). The controversy heightened as reports indicated inappropriate promotion of the DIBELS assessment above other possible alternatives (Manzo, 2005; Olson, 2007; Shelton et al., 2009). Accusations include advertisement at implementation workshops, and states feeling pressured to

specify DIBELS in order to receive approval for their plans and financial assistance (Manzo, 2005; Shelton et al., 2009). Furthermore, it was identified that consultants of Reading First had financial ties to the product and benefitted from its wide-spread usage (Shelton et al., 2009). Critics argue that DIBELS was developed and in use for years prior to the creation of the Reading First initiative, and thus was only utilized because it seemed to fit the guidelines (Manzo, 2005).

Response to Intervention

Another legislative decision, supported by many of the same policymakers of Reading First, impacted further the necessity of use of DIBELS (Fuchs & Fuchs, 2006). As a result of signing the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004, RTI became the new service delivery model for identifying and delivering instruction for students at-risk for learning difficulties (Deeney, 2010; Petscher, Kim, & Foorman, 2011). The reauthorization of this legislation no longer solely recognized the discrepancy model for identifying students with learning disabilities, "it permits the use of assessment data that tracks a child's response to scientific, research-based interventions" (Stahl, 2016, p. 659). Assessment, including universal screening and progress monitoring, is a key component in the RTI framework (Fuchs & Fuchs, 2006; Petscher et al. 2011; Stahl, 2016) and part of a comprehensive eligibility determination for specific learning disabilities in reading (O'Keefe, Bundock, Kladis, Yan & Nelson, 2017; Stahl, 2016). CBM measures, such as DIBELS, have become important and widely used within the RTI process (Deeney, 2010; O'Keeffe et al., 2017; Shapiro et al., 2012).

One component of RTI is the use of assessments, but educators work within the framework of a problem-solving approach (Fuchs & Fuchs, 2006; Shapiro et al. 2012). Shapiro et al. (2012) explain the decision-making process that is part of RTI, the process often begins with the data from universal screeners to identify the appropriate level of support the student needs. The researchers further explain that teams must continue to collect data and interpret it throughout the RTI cycle in order to understand whether students are responding and making appropriate gains, or if the instruction, intervention, or intensity needs to be modified. Although RTI is commonplace in many school systems, educational professionals must be equipped with the knowledge and judgment, as they skillfully work to support the student, using appropriate assessment and data interpretation procedures to drive effective instruction (Amendum et al., 2016; Fuchs & Fuchs, 2006). Mandates and educational accountability measures have increased pressures on teachers, which in turn has produced some faulty instructional approaches (Amendum et al., 2016; Deeney, 2010; Kaminsky & Cummings, 2007).

Statement of Purpose

The intent of this project is to educate elementary teachers regarding the purpose of the DIBELS assessment, both its uses and limitations, and how it can be used to appropriately inform instruction. Furthermore, the aim is to provide teachers with information regarding data interpretation and analysis, so that instructional supports are implemented for students at-risk for reading difficulties. A series of professional development sessions and data review cycle meetings will be developed

to help support the teachers use data in their decision-making as they work to support the diverse needs of learners in their classrooms. Furthermore, each subtest of the assessment will be reviewed through the lens of the literacy construct it represents, and examples of instructional strategies will be offered.

Objectives of the Project

The objectives of this project are detailed below. In order to achieve these objectives, information regarding the purpose of the DIBELS assessment and data interpretation will be outlined for staff using an ongoing professional development model. Additionally, research regarding examples of effective instructional strategies will be reviewed and summarized. Specifically, this project was developed to:

- Inform teachers of the purpose of the DIBELS assessment, discussing both its uses and limitations as an assessment tool for screening and progress monitoring.
- Relate each subtest of the DIBELS assessment to the broader literacy construct that it represents.
- Provide teachers with a framework for effectively analyzing and summarizing DIBELS data at an individual-level, classroom-level, and grade-level.
- Encourage teachers to view assessment results in terms of the reading process and reading development.
- Highlight examples of instructional strategies that can be utilized to support the needs of students experiencing reading difficulties.

Definition of Terms

- Alphabetic Principle: The knowledge that words are broken into speech sounds and that each speech sound can be represented by a letter or letters from the alphabet (O'Connor, 2011).
- Curriculum-Based Measure (CBM): An efficient assessment approach that measures the growth of an individual student through samples of performance on a single-measure over time (Deno, 2003).
- Dynamic Indicators of Basic Early Literacy Skills (DIBELS): "A set of procedures and measures for assessing the acquisition of early literacy and reading skills from kindergarten through sixth grade" (Kaminsky & Cummings, 2007, p. 1).
- Fluency: "Reading fluency is made up of two distinct components at two ends of the reading spectrum automaticity in word recognition and expression in oral reading that reflects the meaning of the text" (Rasinski, 2014b, p. 4).
- General Outcome Measure: A type of CBM assessment that is an overall indicator of student proficiency on global outcomes, such as reading proficiency, as opposed to results indicating specific skill mastery (Fuchs & Deno, 1991).
- *Graphemes:* The written representation of phonemes (Beck & Beck, 2013).
- *Phonemes:* "The smallest units comprising of spoken language" (Ehri et al., 2001, p. 253) (e.g. the word *if* has two phonemes /i/ and /f/).
- Phonemic Awareness: "The awareness that the speech stream is made up of a sequence of small units of sound and the ability to manipulate those small units" (Yopp & Yopp, 2000, p. 6).

- *Phonics:* The knowledge of the predictable relationship between letters (graphemes) and their sounds (phonemes) (Beck & Beck, 2013).
- Progress Monitoring: Ongoing assessment of identified at-risk students, which provides feedback about student progress and the effectiveness of instruction (Good et al., 2011).
- Response to Intervention (RTI): A structured system that focuses on providing early intervention to address academic difficulties using a tiered delivery model, and a data-driven problem-solving approach (Fuchs & Fuchs, 2006; Shapiro et al., 2012).
- Universal Screening: Using a screening tool, assess every child within a grade-level, to identify a group of at-risk students based on established benchmark scores; typically occurs three times per year (Fuchs & Fuchs, 2006; Good et al., 2011).

Scope of the Project

This project is aimed to support the understanding of elementary teachers, kindergarten through grade five, in the purpose, interpretation, and identification of relevant instructional strategies based upon results from the DIBELS Next assessment. The goal is to provide teachers with relevant information and professional support to further improve the Multi-Tiered Systems of Support (MTSS) framework that has been established in our school. The instructional strategies offered as part of this project will be examples of approaches that can be used to meet the learning needs of students. The instructional strategies will focus on only three of

the constructs measured through DIBELS, including: phonemic awareness, phonics, and fluency. It is important to note that these strategies are by no means an exhaustive list, but only a small sample of possible practices. Comprehension instruction and strategies are beyond the scope of this project. The professional development information is geared toward the educators at my current elementary school, thus portions of this project may need to be adapted to better fit other professionals' learning needs.

This project will not cover information concerning the previous version of the DIBELS assessment, DIBELS 6th Edition. Nor will this project incorporate information regarding various DIBELS data management systems. The current training does not include information regarding use in the sixth grade; however, the assessment subtests are of similar nature in grades three through five. Factors that could obstruct the implementation of this project include district support and time available for professional development and data review meetings. Although DIBELS is currently a district initiative, changes could be made to our assessment systems. Furthermore, sufficient time for professional development, collaboration with teachers, and feedback are always challenging in an educational setting. Time will be scheduled into the school year, but additional training required by the district may supersede this information.

Chapter Two: Literature Review

Introduction

DIBELS measures are frequently used within a RTI system to identify and monitor students at-risk for reading difficulties (Amendum et al., 2016; Good et al., 2011; Shapiro et al., 2012). Unfortunately, with increased pressures due to educational accountability measures, some misinformed educators are not utilizing the assessment measures as they have been intended, resulting in defective instructional decisions (Deeney, 2010; Kaminsky & Cummings, 2007; Shanahan, 2018). Although DIBELS assessments can be used effectively within the larger RTI framework, teachers must be well-informed and have advanced knowledge of assessment, data interpretation, and instructional strategies to positively impact the reading development of at-risk learners (Amendum et al., 2016; Fuchs & Fuchs, 2006; Shanahan, 2018).

To address the misconceptions of using DIBELS inappropriately, this literature review will focus on supporting educators in understanding the intended purpose and use of DIBELS assessments to inform instruction. Specifically, this literature review will focus on the intended purposes and limitations of the DIBELS assessment tools, the literacy construct that aligns itself with each DIBELS subtest, and a sampling of instructional strategies to support learners' literacy skill development. Additionally, research will be examined regarding effective professional development practices in order for this project to be most impactful on teachers' use and interpretation of DIBELS.

Theory/Rationale

Literacy assessment and teaching practices fall along a continuum of theories and models that attempt to capture the complex process of reading development; however, any one theoretical basis cannot be all encompassing, each having its own strengths and limitations (Farrall, 2012; Li & Zhang, 2008). DIBELS is one literacy assessment tool that can help support teachers in their thinking about instruction. It can provide information about what teaching may need to occur next; "Thoughtful literacy assessment tools are essential to help teachers think analytically about teaching: however, teachers are encouraged to see assessment as tools to be adapted, not as panaceas to be adopted" (Li & Zhang, 2008, p. 41). Furthermore, from a balanced literacy model, differing perspectives and philosophies can work in concert to provide a more complete picture (Li & Zhang, 2008). Farrall (2012) states "As students of assessment, reading, language, and cognition, we should not feel the need to embrace one philosophy of education to the complete exclusion of another" (p. 26).

Behaviorism

The DIBELS assessment clearly originates and has its foundations in the behaviorist perspective (Li & Zhang, 2008). Behaviorism is a theory that focuses on observable changes in behavior that can be shaped through the use of reinforcement (Farrall, 2012; Li & Zhang, 2008; Tracey & Morrow; 2012). In terms of reading instruction and assessment, the behaviorist view emphasizes that the behavior of reading is composed of discrete and isolated skills (Li & Zhang, 2008; Tracey & Morrow, 2012). DIBELS Next is composed of six measures that represent these

basic foundational skills; each subtest focuses on discrete parts of the overall reading process (Good et al., 2011).

Tracey and Morrow (2012) describe the basic tenets of behaviorism within reading instruction in *Lenses on Reading: An Introduction to Theories and Models*. The authors indicate that a subskills approach is commonly used, therefore; instruction focuses on the attainment of reading objectives to mastery. They further explain that skills are typically taught directly and systematically, breaking down and sequencing complex tasks from more simple to difficult. Often direct instruction is the predominant approach to teaching reading within this framework. Although behaviorism has its place in the classroom, it also has limitations that do not address the complexities of reading development (Li & Zhang, 2008).

Scaffolding Theory

Another guiding theory of this project is scaffolding. This term was originally described by Wood, Bruner, and Ross (1976), and is a foundational educational concept. Scaffolding refers to a "process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts" (Wood et al., 1976, p. 90). Stone (1998) describes the scaffolding metaphor as "providing temporary assistance to children as they strive to accomplish a task just out of their competency" (p. 344). In using the metaphor, it is understood that a scaffold is a temporary structure, implying the level of support should be adjusted or discontinued based on the need of the individual (Stone, 1998; van de Pol, Volman, & Beishuizen, 2010).

Bruner's theory of scaffolding is often associated with the work of Vygotsky's social constructivist theory, and in particular, his concept of the zone of proximal development (Clark & Graves, 2005; Stone, 1998; van de Pol et al., 2010). Scaffolding and learning occurs within the setting of social interactions; "both participants actively build understanding or intersubjectivity through communicative exchanges in which the student learns from the perspective of the more knowledgeable other" (van de Pol et al., 2010, p. 272). Scaffolding has been found to be an effective technique for supporting learning (Clark & Graves, 2005; van de Pol et al., 2010). Scaffolding techniques vary according to the needs of the learner, thus its use may look different for each individual depending on what is necessary for providing the right amount of challenge (Clark & Graves, 2005; van de Pol et al., 2010). Scaffolding allows for varying levels of support, "Because scaffolding is such a dynamic intervention finely tuned to the learner's ongoing progress, the support given by the teacher during scaffolding strongly depends upon the characteristics of the situation" (van de Pol et al., 2010, p. 272). The goal for using scaffolding in this project is two-fold: both to scaffold the teachers' knowledge and use of DIBELS, and for teachers to scaffold their learners' literacy development.

Research/Evaluation

The Purposes of the DIBELS Assessment

In the DIBELS Next Assessment Manual, DIBELS is described as "a set of measures used to assess early literacy and reading skills for students from kindergarten through sixth grade" (Good et al. 2011, p. 1). The authors further

indicate that DIBELS Next can be used for multiple assessment purposes including to "identify students who may be at risk for reading difficulties and to monitor at-risk students while they receive additional, targeted instruction" (p. 1). Universal screening and progress monitoring assessments are hallmarks of the RTI framework (Fuchs & Fuchs, 2006; Wixson & Valencia, 2011). When users understand the intended purpose of these assessments and use them with fidelity, DIBELS can be an effective tool for identifying and monitoring students (Amendum et al., 2016; Shapiro et al., 2012).

Universal Screening. Universal screening is utilized as part of the RTI process for the purpose of identifying students that may be at-risk for reading difficulties prior to intervention instruction (Gillis, 2017; Wixson & Valencia, 2011). It is a baseline measure that identifies at-risk students, based on pre-established and research-based benchmark scores in order to establish if students are at, above, or below grade level (Fuchs & Fuchs, 2006; Gillis, 2017; Wixson & Valencia, 2011). Within the RTI framework, it is common for educators to assess all students within the school during predetermined time frames, with the first assessment period happening in the beginning weeks of the school year for earliest identification (Fuchs & Fuchs, 2006). The DIBELS benchmark assessment tool is used for universal screening, testing all students within a grade level three times per year (fall, winter, and spring) to determine performance benchmarks (Good et al., 2011).

Good et al. (2011) state the purpose of the DIBELS benchmarking assessment is a general outcome measure of reading proficiency based on early literacy skills.

The authors further emphasize and explain how DIBELS is an *indicator* of these skills by defining this term: "an indicator is a brief, efficient index that provides a fair degree of certainty about a larger, more complex system or process" (p. 2). They provide a helpful comparison of general health and wellness as an example to further clarify this distinction. As an example, temperature may be an indicator of general health and may indicate either problem or lack thereof, but it does not provide all of the information necessary to form a plan of action to take care of the problem. The distinction of DIBELS as an indicator is important to its appropriate usage:

As indicators, DIBELS measures are not intended to be comprehensive, indepth assessments of each and every component of a basic early literacy skill. Instead, they are designed to measure key components that are representative of that skill area, and predictive of overall reading competence. (p. 2-3)

The purpose is to flag a possible deficit and to put educators at attention as to the notion that there may be a problem that will need further examination and review (Wixson & Valencia, 2011). Universal screening is a fundamental first step; diagnostic assessments and further information can help to 'dig deeper' (Gillis, 2017).

Progress Monitoring. Progress monitoring occurs with students that have been previously identified as at-risk through the benchmarking assessment process (Fuchs & Fuchs, 2006; Good et al., 2011). Progress monitoring measures are used on an ongoing basis, and can provide information regarding student growth and the effectiveness of instruction (Fuchs & Fuchs, 2006; Gillis, 2017; Good et al., 2011; Wixson & Valencia, 2011). Progress monitoring is formative in nature since it can

assist teachers in making instructional decisions relative to students' individual responsiveness to the intervention (Wixson & Valencia, 2011). As data are collected and analyzed, adjustments can be made to the intervention or specific conditions, such as intensity and delivery (Gillis, 2017).

Good et al. (2011) explain the importance of this formative measure, "the purpose of progress monitoring is to provide ongoing feedback to the teacher about the effectiveness of instruction and to make timely decisions about changes to instruction so that students will meet grade-level goals" (p. 34). The authors explain that progress monitoring differs from the benchmark assessment, also referred to as universal screening, in a few ways. One variance is that students should be progress monitored in material that directly measures the area of concern; therefore, a child could be monitored outside of his or her particular grade level, while benchmarking assesses performance in comparison to the benchmarks for the student's actual grade level. Another difference is that students are being progress monitored only on measures that were identified as those that require targeted instruction. This means that students could be progress monitored in one or more measures. Finally, progress monitoring occurs much more frequently. DIBELS recommends that the frequency be based on the need for timely decisions, generally suggesting time frames from once per week, bi-weekly, or once per month depending on the intensity of support required. Progress monitoring measures are important data for understanding if students are making adequate progress, or if a change to instruction is needed (Gillis, 2017; Wixson & Valencia, 2011).

Limitations and cautions. Although DIBELS plays a large role in the various components of RTI, it must be noted that DIBELS should not be the only source of information to consider. Shapiro et al. (2012) agree that measures of universal screening serve a purpose and are critical within an RTI model, but that the sole reliance on any single measure is detrimental in accurate decision-making. Incorporating multiple measures that serve different purposes can enhance the efficiency and utility of information as it is needed to assess progress and determine instruction for at-risk students (Wixson & Valencia, 2011). Kaminsky and Cummings (2007) state "DIBELS was never intended to be used alone as the sole measure of a child's success but rather within a system of literacy support that is linked to a model of data-based decision making" (p. 1).

Furthermore, it is important to remember that DIBELS represents indicators of reading proficiency, it is not an all-encompassing assessment (Good et al., 2011). It is also essential to keep in mind how each individual subtest, or indicator, fits into a larger understanding of reading development (Amendum et al., 2016). Although DIBELS can be helpful for identifying at-risk students, the information gleaned is not specific enough to address completely the next steps for appropriate interventions or instruction; this is accomplished through the use of diagnostic assessments which DIBELS is not (Shanahan, 2018; Wixson & Valencia, 2011).

Alignment of Constructs to Subtest Measures

The purpose of the DIBELS Next assessment can be further understood by discerning the literacy concept or construct that is represented by each subtest

(Amendum, et al., 2016). A lack of awareness of these concepts can result in teachers directly teaching to the test, disregarding the actual literacy skills or strategies and how they are defined (Deeney & Shim, 2016; Samuels, 2007; Shanahan, 2018). The distinction of DIBELS as a formative assessment that measures general outcomes is important, "unlike mastery based assessment in which it is appropriate to teach the exact skills tested, each DIBELS indicator represents a broader sequence of skills to be taught" (Kaminsky & Cummings, 2007, p. 5). Teachers that understand the underlying early literacy components of each subtest will be able to support their students' growth using thoughtful, meaningful, and integrated literacy activities and experiences (Amendum et al., 2016; Kaminsky & Cummings, 2007). A discussion of the constructs assessed through DIBELS and the corresponding subtests follows.

Phonemic awareness. Phonemic awareness refers to "a conscious attentiveness to the individual speech sounds that comprise spoken words" (O'Connor, 2011, p. 9). An alternate definition describes phonemic awareness as "the awareness that the speech stream is made up of a sequence of small units of sound and the ability to manipulate those small units" (Yopp & Yopp, 2000, p. 6). Phonemic awareness is generally an auditory activity; students are focused on hearing the sounds in words (Foorman et al., 2003). DIBELS incorporates two measures that are indicators of phonemic awareness, these include: First Sound Fluency (FSF) and Phoneme Segmentation Fluency (PSF). FSF measures whether a student is able to identify the initial sounds in words, while PSF assesses whether a student can segment or break apart a word into its component parts (Good et al., 2011). The FSF

measure occurs earlier on the phonemic awareness skill continuum, and thus is a simpler measure (Good et al., 2011).

Alphabetic principle and phonics. The alphabetic principle is the understanding that "spoken words are composed of separable sounds and can be represented consistently by symbols" (Beck & Beck, 2013, p. 26). The alphabetic principle sets a foundation for phonics instruction (Beck & Beck, 2013; O'Connor, 2007). Phonics, also commonly referred to as decoding, can be defined as "reading an unfamiliar word by applying knowledge about letter sounds and common letter patterns in words" (Spear-Swerling, 2011, p. 64). Phonics instruction, simply defined, is about the relationship of letters to their sounds (Beck & Beck, 2013; O'Connor, 2007). Nonsense Word Fluency (NWF) is the subtest that represents student understanding of the alphabetic principle and basic decoding skills. Good et al. (2011) describe the NWF assessment as one that "assesses knowledge of basic letter-sound correspondences and the ability to blend letter sounds into consonantvowel-consonant (CVC) and vowel-consonant (VC) words" (p. 66). The assessment uses nonsense words, or make-believe words, in order to focus purely on decoding skills so that results are not confounded by student knowledge of basic CVC words (Good et al., 2008).

Phonics instruction involves more than letter-sound correspondences and CVC words. Phonics instruction is typically divided among eight categories, moving from easier to learn to more complex, these skills include: individual consonants, short vowels, consonant blends, consonant digraphs, long vowels in CVCe words,

long vowels in CVVC words, r-controlled vowels, and other vowel patterns (Beck & Beck, 2013). Additional explicit phonics instruction and strategies are required when students move to the reading of multisyllabic words (Beck & Beck, 2013; Knight-McKenna, 2008; O'Connor, 2007). The DIBELS Oral Reading Fluency (DORF) measure can indicate advanced phonics and word attack skills by examining the accuracy of the student's word reading.

Fluency. Fluency is a multidimensional skill, "Reading fluency is made up of two distinct components at two ends of the reading spectrum – automaticity in word recognition and expression in oral reading that reflects the meaning of the text" (Rasinski, 2014b, p. 4). The DORF subtest also measures aspects of fluency, assessing the automaticity in word recognition component by way of accuracy (percent of words read correctly) and rate (words read per minute), as students read grade-level connected text. DORF does not measure prosody, or "the ability of readers to render a text with appropriate expression and phrasing to reflect the semantic and syntactic content of the passage" (Young & Rasinski, 2009, p. 4). A student should be considered fluent if they have the ability to read words in a text with sufficient accuracy, automaticity, and prosody leading to comprehension of the text; comprehension being the ultimate goal of reading (Rasinski, 2014a; Young & Rasinski, 2009).

Reading comprehension. The definitive purpose of reading is for students to comprehend and understand texts; to engage with them in the construction of meaning and to learn (Klinger, Vaughn & Boardman, 2007). Reading comprehension

is a complex subject, and the way comprehension is defined is dependent upon the theoretical foundation in which it originates (Gill, 2008). To fully explore what is meant by reading comprehension and all of the impacting factors is beyond the scope of this project, however; it is important to note that reading comprehension is assessed using two different measures the DIBELS Retell and the DIBELS maze (DAZE) measure.

Instructional Considerations & A Sampling of Strategies for At-Risk Learners

The data resulting from DIBELS subtests is often misinterpreted by educators, resulting in compromised 'instructional validity,' or inappropriate instruction based upon these measures (Shanahan, 2018). The focus of the following section is to provide teachers with instructional strategies and recommendations that teach the underlying literacy constructs of phonemic awareness, phonics, and fluency, rather than teaching to the DIBELS test itself.

Phonemic Awareness. The concept of phonemic awareness is one that confuses educators (Ehri et al., 2001; Wren, 2002; Yopp & Yopp, 2000). Phonemic awareness "refers to the realization that spoken words are made up of sounds" (Cunningham, 2011, p. 200). These oral sounds, referred to as phonemes, are considered the building blocks of our language; "Phonemes are the smallest units comprising of spoken language" (Ehri et al., 2001, p. 253). There are around 41 phonemes in the English language that combine to form all of our spoken words (Ehri et al., 2001). To further clarify, phonemes are not units of written language, as those units are called graphemes (Ehri et al., 2001). Phonological awareness is sometimes

used as a synonym to phonemic awareness, yet there is a difference between these two terms (Wren, 2002). Phonological awareness is the larger umbrella in which phonemic awareness falls, in other words, phonemic awareness is a subskill of phonological awareness (Ehri et al., 2001; Wren, 2002; Yopp & Yopp, 2000). Phonological awareness is a more general term that encompasses the understanding of any size spoken units, examples include rhyming words, compound words, and syllables (Yopp & Yopp, 2000). Phonemic awareness is the most complex phonological awareness skill, since students are breaking a word down into its smallest component parts at the phoneme level (Good et al., 2011).

Phonemic awareness skills fall along a continuum of tasks requiring varying levels of sophistication, from more simple to more complex (Antonacci & O'Callaghan, 2012; Cunningham, 2011; Ehri et al., 2001; Mraz, Padak, & Rasinski, 2008). The differing levels can be used to help assess student proficiency or to help decide on instructional practices (Antonacci & O'Callaghan, 2012; Ehri et al., 2001; Mraz et al., 2008). Mraz et al. (2008) describe each of these tasks. The first task refers to phoneme isolation, or the ability to recognize an individual sound in a word, such as the first sound or last sound. The next task involves phoneme identification, or recognizing the same sound among a group of different words. Third, is phoneme categorization. Given a set of words the student is able to identify which word does not belong. The next skills are blending and segmenting. Blending refers to the ability of a child "to listen to a sequence of separately spoken sounds and then combine those sounds to form a recognizable word" (p. 7). Segmenting is the

opposite skill, "the child is able to break a word into its sounds by tapping out, counting the sounds, or pronouncing each sound" (p. 7). Finally, phoneme manipulation can refer to making a new word by adding a phoneme, deleting a phoneme, or substituting a phoneme to an existing word.

Two of the most critical components of phonemic awareness are the abilities to blend and segment words (Cunningham, 2011; O'Connor, 2011). O'Connor (2011) explains how phonemic awareness activities help students understand the alphabetic system of our language. She states that blending and segmenting are interrelated skills, yet they correspond with reading and writing in different ways. When children are reading any unknown word, they use the skill of blending. She asserts that children first have to identify the letter, produce that sound, and then blend the phonemes of each sound together to read the word. When writing or spelling, students need to have the ability to segment the sounds in words to transcribe the corresponding letters. She summarizes, "while blending seems necessary for reading, segmenting spoken words would appear to be more related to spelling" (p. 12). The author further emphasizes that although the skills are interrelated, research has shown that teaching one skill does not transfer to the other skill. This means that both skills should be taught explicitly.

Although phonemic awareness activities focus on oral activities and spoken sounds, phonemic awareness instruction has been found to be most effective once letters of the alphabet are included (Ehri et al., 2001; Foorman et al., 2003; Keesey,

Konrad & Joseph, 2015; O'Connor, 2011). The additional step of letter-sound instruction helps students gain a better understanding of the alphabetic principle: the knowledge that words are broken into speech sounds and that each speech sound can be represented by a letter or letters from the alphabet (O'Connor, 2011). The alphabetic principle is the crucial bridge; "the alphabetic principle, in which phonemic awareness and knowledge of letter-sound correspondences come together in the practical application of reading," (O'Connor, 2007, p. 39) is foundational. Although phonemic awareness instruction and letter-sound correspondences can be taught in isolation, it is beneficial for at-risk readers to have explicit instruction that links these two components (O'Connor, 2011). Yopp and Yopp (2000) note that the addition of letters attached to sounds during phonemic awareness instruction technically transforms the activity into a phonics activity. Although skills may seem discrete, they overlap due to the complexity of the reading development process. The following are research-based instructional practices and recommendations when teaching phonemic awareness.

Turtle talk and ghost talk to guess-the-word. When a child works to sound out an unknown word, he or she will say each sound in the word slowly, and then will quickly blend those sounds to read the word. Children with reading difficulties tend to have the most problems with the step requiring blending, which makes mastery of this skill pertinent at the oral level (O'Connor, 2007). Research suggests using child-friendly sound play activities when working on these concepts (Yopp & Yopp, 2000). One idea is to incorporate fun ways of speaking, such as the use of turtle talk or ghost

talk to practice stretched blending (Cunningham, 2011; Fitzpatrick, 1997). Both of these methods require students, or the teacher, to speak slowly and deliberately as they stretch the speech sounds. You can make this activity more game-like by instructing children to guess the word (Reading Rockets, 2018). For students that need additional support, picture cues can provide possible choices to ensure they are focused on a few possibilities that represent the spoken word (O'Connor, 2007). Additionally, these same activities can be used for lower levels of phonological awareness if students aren't yet at the phoneme level; students could guess the word by blending compound words, syllables, or onset-rime (Reading Rockets, 2018). You can also incorporate riddles into oral blending practice (Cunningham, 2011), an example being "I'm thinking of an animal with four legs and is a /d/ /o//g/."

Blending slides and drive-through blending. It is highly recommended to incorporate letters into blending activities even if students only know a limited number of letter-sound correspondences (O'Connor, 2011). Blending slides and drive-through blending incorporate letter-sound correspondences to support students in their blending practice (Fitzpatrick, 1997; The Balanced Literacy Diet, 2011). Blending slides is an activity in which letter tiles 'slide' down a playground slide, with each sound being stretched as it slides, and followed by the blending of the whole word at the bottom of the slide (Fitzpatrick, 1997). Drive-through blending involves 'driving through words.' A toy car slowly drives through letters that are written in a triangle formation while students stretch each sound; subsequently, the

teacher encourages students to drive through the word faster and faster in order to blend the sounds to read the word (The Balanced Literacy Diet, 2011).

Sound boxes. Segmentation is an incredibly important concept and can be difficult to master:

There are no breaks in speech signaling where one phoneme ends and the next one begins. Rather, phonemes are folded into one another and are coarticulated. Discovering phonemic units is helped greatly by explicit instruction in how the system works. (Ehri et al., 2001, p. 254)

Sound boxes are effective in improving phonemic awareness in young students, as well as letter-sound correspondences and spelling skills, when letters are incorporated into the instructional strategy (Foorman et al., 2003; Keesey et al., 2015, Mraz et al., 2008; O'Connor, 2007). The concrete nature of the visual boxes and use of manipulatives have helped support children in their development of phonemic awareness (Keesey et al., 2015). O'Connor (2007) describes how to teach students to segment words using sound boxes. She explains that having a three-square form to visualize the break is important. Students are then able to touch each box or move a small disk into each square to represent the segmented phonemes. As students become adept at this task letter sound-correspondences can be incorporated; "Since the alphabetic principle adds measurably to students' growth in reading words, it makes sense to begin to introduce this notion as soon as children have enough phonemic awareness and letter knowledge to being to link the two" (p. 41). This technique is known as word boxes when letters are incorporated (Keesey et al., 2015).

Kinesthetic segmentation. Many examples of kinesthetic segmentation abound (Fitzpatrick, 1997). Fitzpatrick (1997) offers a number of creative activities that incorporate movement. One example is "Head, Waist, Toes." Children can tap three-phoneme words on the corresponding part of their body as they work to break apart the word. She suggests this activity can also work for identifying beginning, middle, and ending sounds, or additional actions can be added when segmenting words with more phonemes. Fitzpatrick also recommends that students segment words through tapping, clapping, fist pounding, or holding up a finger for each sound. Another activity she proposes is called "Put it Together, Take it Apart." This activity incorporates a concrete object to represent the segmentation process. Children can use Unifix or linking cubes to represent a word such as clock. The children would take apart the cubes as they say the corresponding phonemes. This activity can also be used for blending the sounds in the word. An additional extension would involve manipulating phonemes, for example change 'clock' to 'lock' or 'luck' to 'lick.' The students would point to or modify the cube that represents the phoneme change.

Additional phonemic awareness recommendations. Phonemic awareness is one of the best predictors for future reading success (Ehri et al., 2001). Although phonemic awareness is a powerful predictor it should be considered a small part of a comprehensive literacy program (Mraz et al., 2008; Yopp & Yopp, 2000). Incorporating these practices into a literacy rich environment that is focused on reading and writing is important (Cunningham, 2011; Mraz et al., 2008). Chants, jingles, songs, and books that integrate different aspects of word play are impactful in

developing these skills (Cunningham; 2011. Yopp & Yopp, 2000). Phonemic awareness activities should be developmentally appropriate with instruction being playful, engaging, and interactive (Yopp & Yopp, 2000).

Even though these activities and language play are fun, it is important to teach phonemic awareness in an explicit and systematic manner (Ehri et al., 2001; Mraz et al., 2008; O'Connor, 2011). The developmental progression of phonological awareness and phonemic skills needs consideration when teaching explicitly and systematically (Antonacci & O'Callaghan, 2012; Ehri et al., 2001; Mraz et al., 2008; Yopp & Yopp, 2000). Direct instruction in phonemic awareness should not be lengthy, with some recommending sessions be limited to 10-20 minutes per day (Ehri et al., 2001; Keesey et al., 2015; O'Connor, 2011). Furthermore, it is important to identify the areas of phonological awareness that students have mastered through assessment, and use that to create targeted sessions on specific skills (Antonacci & O'Callaghan, 2012; Mraz et al., 2008). Phonemic awareness instruction provided in a focused manner should include only one or two skills at a time; it is more effective than instruction teaching multiple skills (Ehri et al., 2001). Finally, the impact of incorporating letter-sound correspondences to explicitly link phonemes to the alphabetic principle cannot be minimized. Instruction in this manner is more effective in improving reading outcomes (Ehri et al., 2001; Mraz et al., 2008; O'Connor, 2011).

Phonics. Phonics can be defined as a systematic instructional approach in which students learn letter-sound relationships and focus on how those sounds blend

together to make words (Lane & Pullen, 2015). In order to learn the decoding process and benefit from phonics instruction, an understanding of phonemic awareness and the alphabetic principle are foundational (Lane & Pullen, 2015; O'Connor, 2007). Phonemic awareness and the alphabetic principle are described thoroughly in the previous section. Phonics differs from phonemic awareness in that phonics instruction requires the matching of print, or graphemes, to spoken sounds; whereas phonemic awareness is strictly oral. Although this is supposedly the case, phonemic awareness and phonics are greatly intertwined and many instructional strategies incorporate the two concepts; especially to develop the alphabetic principle – understanding that speech and print are reciprocal (O'Connor, 2007).

The National Reading Panel (2000) concluded that effective phonics instruction is both explicit and systematic in nature. Spear-Swerling (2011) defines these terms, and what they mean for instruction:

'Explicit' means that teachers directly teach and model key letter-sound relationships and decoding skills; children are not expected to acquire these skills simply from exposure to words or incidental learning opportunities. 'Systematic' means that teachers carefully plan and organize instruction so that children learn prerequisite skills before they learn more complex skills. (pp. 67)

Students at-risk for reading difficulties will likely need explicit instruction in how to blend sounds together (O'Connor, 2007), and will require many opportunities to

practice application of these skills (Beck & Beck 2013; Lane & Pullen, 2015; Spear-Swerling, 2011).

Children develop word reading skills through a series of phases (Ehri & McCormick, 1998). The understanding of these phases can benefit instruction as teachers select and utilize interventions that facilitate the decoding process (Beck & Beck, 2013). Ehri and McCormick (1998) name and describe the five phases of word reading: pre-alphabetic, partial alphabetic, full alphabetic, consolidated alphabetic, and automatic alphabetic. They describe the pre-alphabetic phase as characterized by the reader's use of visual cues rather than phonetic cues. A reader at this stage has little alphabetic knowledge (letter-sound correspondences), so he or she pays attention to distinctive visuals, such as logos and colors, which are found in environmental print. In the partial alphabetic phase, children begin to use some alphabetic cues, but that use is fairly limited. Readers will use context, often only referring to beginning and ending letters, and guessing at words that look similar. At this phase children know some of the main letter sounds, but do not yet process the whole word. Vowel sounds provide an extra challenge here. The full alphabetic phase is described as the reader having a general grasp of phonemic awareness and a more complete understanding of letter-sound relationships and the alphabetic principle. In this phase students are better at decoding and rely less on context cues; however, the process can still be laborious and slow requiring effort in order to read unknown words. The fourth phase, the consolidated-alphabetic phase, occurs when students begin to read letter sequences, affixes, roots, and syllables as chunks rather

than as individual sounds. This stage facilitates the reading of multisyllabic words. Furthermore, it enables accuracy and speed, because many words are now part of the reader's sight word base. The final phase is automatic, almost all words are read without effort and by sight. When readers come to an uncommon or technical word they are able to apply decoding strategies as a method to fall back on, but the energy of these readers is spent on comprehending the text. The following are instructional strategies that can be used to help readers develop within the partial and full alphabetic phases.

Successive blending. Blending is a crucial aspect of phonics, yet poor readers can exhibit great difficulties with this skill (Beck & Beck, 2013; O'Connor, 2007). One issue can occur when students add the schwa sound (/buh/ versus /b/); the schwa can impact a student's success with blending (O'Connor, 2007). Another common issue is that students are not able to hold the word's sounds long enough in their short-term memory (Beck & Beck, 2013; O'Connor, 2007). Successive blending is an instructional strategy that can combat this problem and relieve some stress on the reader's short-term memory (Beck & Beck, 2013).

The successive blending strategy is thoroughly described by Beck and Beck (2013) in *Making Sense of Phonics: The Hows and Whys*. The gist of the strategy is that students focus on the first two sounds of the word and immediately blend only those two sounds. The reader then repeats that blended part, and then adds the third sound. This strategy is advantageous because the reader does not need to hold more than two sounds in his or her memory at a time. Additionally, this strategy can work

for longer words with four- and five-phonemes (e.g. crust). The blending strategy is explicitly taught until students can use the procedure independently to blend novel words. A physical representation of the letters and the blending action is used during this process; the teacher should have a set to model, but each individual student should be able to manipulate the letters with their own individual letter cards. The authors describe another advantage of successive blending as having an understanding of where precisely students are erring. The researchers also recommend this strategy when students begin reading words with initial consonant blends.

Building words. Word Building and Making Words are similar strategies that focus the child's attention on small changes in words; requiring the child to pay attention to every letter in the sequence of letters that comprise a word (Beck & Beck, 2013; Cunningham, 2011). There is minimal contrast from one word to another allowing children to build their knowledge of spelling as well (Beck & Beck, 2013; Cunningham, 2011). Although similar, each strategy will be described separately so the nuances of each can be understood.

Beck and Beck (2013) thoroughly explain the Word Building strategy and provide sample lesson plans for teacher use. Word Building involves giving the students a set of letter cards useful for building that particular set of words. The authors note the importance of students already knowing the letter-sound correspondences for the cards they will be utilizing in the lesson. The teacher tells the students which letters they will be using in order to make the first word, and then

the students read the word. In each subsequent step, the teacher tells the student what letter to change (e.g. remove the i and put the u in its place). Then the students read the new word aloud. Changes can involve substituting, adding, or deleting letters. This strategy uses a decoding approach where the student is told which letter is in which place and what to change. This results in the student needing to decode to read the new word. The Word Building strategy supports the acquisition of the full alphabetic principle stage, and can be used to make a variety of one-syllable words, including blends, digraphs, CVCe, CVVC, r-controlled vowels, and diphthongs. Benefits include that students must pay attention to all letters in the word, more attention is placed on the vowel sounds, and students are forced to discriminate among easily confused graphemes. The authors suggest additional work to extend and generalize the Word Building skills, including having students read decodable texts and the use of what they term 'Silly Questions.' Silly Questions allow for additional practice decoding the target patterns and require students to comprehend and make meaning from the question (e.g. Can a dog sit in a hut?). Dictation is also suggested as an extension of the Word Building work.

Making Words is a similar strategy in which students manipulate letters to make words (Cunningham, 2011). Cunningham (2011) explains that Making Words lessons always involve three main components. In the first, students manipulate the letters to make words. Cunningham uses an encoding/spelling approach, which differs from the Word Building decoding/reading approach. In the encoding approach, directions involve the teacher saying the word and asking students to figure

out the change to make the new word (e.g. Change one letter to make *cake* say *lake*.). Each lesson begins with shorter and simpler words and then moves to longer more complex words with the last word, the 'secret' word, containing all of the letters. In the second part of the Making Words lessons students sort the words they've read according to rhyming patterns. Many students need explicit exposure to understand that words that rhyme have the same spelling pattern. The final stage of this strategy involves the transfer of those rhyming patterns; students learn how the patterns help to read and spell novel words. This strategy can also be used for older students when 'Making Big Words' as students work with morphemes, such as root words, prefixes, and suffixes.

Additional phonics recommendations. Phonics instruction involves progressively more difficult skills, and students develop their abilities through a series of word learning phases (Beck & Beck, 2013; Ehri & McCormick, 1998). Providing systematic and explicit phonics instruction and decoding practice can help students become more fluent when reading connected text (Lane & Pullen, 2015). It is important to assess and monitor student skill development in order to provide targeted instruction in deficit areas (Spear-Swerling, 2011). Diagnostic assessments are important for this purpose; they can provide the information necessary for identifying the skills in which students need additional practice (Beck & Beck, 2013).

The use of nonsense words, or pseudowords, can be of benefit when assessing phonics skills (Beck & Beck, 2013; Spear-Swerling, 2011). Caution must be taken when interpreting this information; nonsense words are not the goal of instruction, but

representative of a student's ability to use their decoding knowledge (Shanahan, 2018). Some use of nonsense words as part of instruction is acceptable so that children are required to employ their skills and aren't reading words from memory; however, this practice should be minimal (Spear-Swerling, 2011). Furthermore, phonics instruction is a means to an end; verbalization of phonics rules is not important it is the application and transfer of the rules into reading that matters (Spear-Swerling, 2011).

Additionally, just as reading real words is important, it is imperative that children read connected text (Beck & Beck, 2013; Spear-Swerling, 2011). Decodable texts are highly valued since students can have additional practice with the skill in which they are receiving instruction (Beck & Beck, 2013). Decodable texts also provide content for the reader to comprehend and discuss; this should not be ignored during phonics instruction (Beck & Beck, 2013). The actual act of reading aloud is more effective for students than completing phonics worksheets; teachers will better understand students' application of decoding skills and are able to provide feedback and guidance as children read (Spear-Swerling, 2011). Students also need opportunities to engage with text in an authentic manner; they need to be able to read both independently and with teacher feedback, "without sufficient opportunities to read passages and books, decoding gains may not transfer to fluency or comprehension, and children's motivation may suffer" (Spear-Swerling, 2011, p. 76).

Multisyllabic word instruction. Phonics instruction largely declines in upper grades, but when multiple syllables begin to compose words many readers, even those

who have not previously struggled, need and benefit from strategies in decoding multisyllabic words (Beck & Beck, 2013; Knight-McKenna, 2008; O'Connor, 2007). Many struggling readers exhibit 'learned helplessness' when it comes to decoding long words, "it is a condition of believing that one is unable to take the necessary steps to accomplish a desired goal" (Beck & Beck, 2013, p. 109). Students can become easily overwhelmed and fail to attempt words when they feel they do not have a means to accomplishing reading them (Beck & Beck, 2013; Knight-McKenna, 2008). Teachers can support students both affectively and cognitively through the explicit teaching of strategies (Beck & Beck, 2013).

Beck and Beck (2013) have surmised that multisyllabic word decoding requires three skills. The first skill is analysis; this refers to understanding where to chunk a word, or divide the word into syllables. The second step refers to pronouncing each of the chunks that were separated in the previous step. The authors indicated that the vowel sounds are often the most difficult. There are six common syllable types that students can learn when trying to determine the vowel sound. The syllable type gives a clue to the sound the vowel will make. Finally, synthesis must occur. Synthesis refers to combining the chunks or syllables back into a spoken word. Synthesis of each word part can be difficult for students taxing the working memory when trying to blend so many pieces back together. The successive blending strategy that was suggested previously can be put to work again here using syllables rather than individual phonemes. As students become more familiar and efficient with multisyllabic word decoding these three distinct skills become interwoven.

Teaching syllable types. Teaching syllable types can be a useful means for instructing students to decode multisyllabic words (Beck & Beck, 2013; Knight-McKenna, 2008; O'Connor, 2007). There are six general syllable types including: closed, open, vowel-consonant-silent e, vowel teams, r-controlled, and consonant -le (Knight-McKenna, 2008). Students that have received phonics instruction in singlesyllable words will have a working knowledge of vowel sounds in closed, silent e, vowel teams, and r-controlled vowel type syllable types. Students should be encouraged to recognize these already familiar patterns that occur within multisyllabic words (Beck & Beck, 2013). When teaching syllable types the instruction should be explicit and systematic in nature "each type should be introduced, explained, practiced, and mastered before moving on" (Knight-McKenna, 2008; p. 19). It is important for students to understand that each and every syllable will have at least one vowel sound (O'Connor, 2007). Furthermore, once students know more than one syllable type it is helpful for students to draw comparisons with manipulatives or using word sorts (Knight-McKenna, 2008). Although this work is isolated in nature, it is important for students to apply these skills in connected text (Beck & Beck, 2013; Knight-McKenna, 2008). Beck and Beck (2013) have included a comprehensive set of lessons and materials on syllable types in their book Making Sense of Phonics: The Hows and Whys. Please refer to this resource for specific directions and wordlists to complete their Syllasearch instructional method.

Teaching affixes and morphemes. Another technique that has shown high utility for both decoding and vocabulary is teaching students common affixes and

morphemes (Cunningham, 1998; Manyak, Baumann, & Manyak, 2018; O'Connor, 2007). Affixes refer to either prefixes or suffixes that join at the beginning or end of base words; they are often morphemes, or meaningful word parts (O'Connor, 2007). O'Connor (2007) provides a list of prefixes and suffixes, including their meanings, which account for the highest frequency affixes in connected text. Manyak et al. (2018) also include a helpful table for which morphemic elements to teach and an instructional sequence for third, fourth, and fifth grades. Cunningham (1998) suggests the importance of teachable moments using content area vocabulary where the instruction of affixes and morphemes can occur authentically. Additionally, teaching affixes helps students to break words into meaningful chunks (O'Connor, 2007). O'Connor (2007) describes an effective strategy that has been used with upper elementary students called BEST: "Break apart the word, Examine each part (or base word), Say each part, Try the whole thing in context" (p. 93). This word analysis strategy can be used a minimally each day (5-10 minutes). Research has shown that students apply the strategy independently within three weeks (O'Connor, 2007). As with any phonics practice or instruction, application of skills to authentic texts and passages is of utmost importance (Beck & Beck, 2013).

Fluency. One of the greatest considerations when working on fluency is to consider a deep view of the construct (Deeney, 2010; Young & Rasinski, 2009). Although the DIBELS assessment focuses solely on aspects of rate and accuracy, prosody and comprehension cannot be forgotten (Deeney, 2010; Rasinski et al., 2009; Young & Rasinski, 2009). Strategic instruction must incorporate fully the concept of

fluency; this means accuracy, automaticity, and prosody with comprehension as the major outcome (Rasinski et al., 2009; Young & Rasinski, 2009).

Research has identified three general practices for improving fluency: the modeling of fluent reading, assisted reading, and the use of repeated readings (Rasinski, 2014a). Modeling allows students to hear what a fluent read should sound like. It can also help students have an understanding of what is meant by the term 'reading fluency' (Rasinski, 2014b). During the modeling phase it is important to explicitly discuss the features of fluent reading that are present, and to specifically remark on how these features help support the students' understanding and enjoyment of the passage (Cahill & Gregory, 2011; Rasinski, 2014b). Assisted reading can be defined as "the novice reader reading a text while simultaneously listening to a fluent oral rendering of the text" (Rasinski, 2014b, p. 8). Basically, the developing reader benefits from the assistance of the more capable reader by helping to identify the words and by listening to a prosodic model. Finally, repeated readings or the rereading of the same text to develop mastery is effective especially when paired with performance feedback (Rasinski, 2014a). Interestingly, repeated reading with the inclusion of feedback not only helps the student improve his or her fluency on the practiced text, but also results in the transfer of the skill to novel texts (Rasinski, 2014b). Effective fluency instructional strategies incorporate these general practices, as is outlined in a description of two strategies that follow.

Fluency Development Lesson. One such structure for practicing fluency is the Fluency Development Lesson, or FDL (Kuhn & Levy, 2015; Rasinski, 2014a).

Kuhn and Levy (2015) explain this model incorporates the three general principles of modeling, assisted reading, and repeated reading. The authors further emphasize that FDL can be used as a supplement to core reading instruction within any curriculum. They highlight the inherent flexibility within this strategy, and how it can easily be incorporated into the classroom. It is effective in helping students progress in word recognition, overall fluency, and reading comprehension (Rasinski, 2014a).

Rasinski (2014a) describes a general overview of FDL. He states this strategy is a twenty- to thirty-minute daily component in which students engage with a short passage usually between 50-200 words. Passages can be poems, story segments, song lyrics, or informational text. The purpose is for students to learn to read and understand the text well. The lesson begins with the teacher introducing the new short text, and providing a fluent model by reading the passage aloud several times as students follow along. The students then participate in discussion regarding the meaning and content of the passage. Next, the teachers and students chorally read the passage several times while varying the type of choral reading that occurs. Students are then organized into pairs with one partner reading the selection while the other partner listens, evaluates, and provides supportive feedback or encouragement. After each child has the opportunity to practice a few times the students are brought back together to share the reading with another audience. Word study activities can occur with these passages as well. Students are encouraged to take the text home to share with a family member for additional practice. This passage can also be used the following day to check for fluency and comprehension.

An excellent example of the FDL in practice can be found in the article *So Long, Robot Reader! A Superhero Intervention Plan for Improving Fluency* by Marcell and Ferraro (2013). These teachers created a series of superhero figures in order to help students better understand the multiple dimensions inherent in fluent reading. For example, Super Scooper battles against Choppy Boy to ensure that the poem is read with meaningful phrasing. These authors utilize the general outline of the FDL, but adjust the process by stretching the elements contained within this model across one week. They also add a large dose of creativity and fun.

Furthermore, these teachers suggest poetry is a wonderful source of text since poetry reading promotes the various facets of fluency instruction. By nature it requires multiple reads in order to appreciate the rhythm, appropriate phrasing, expression, and underlying meaning of the poem. A performance element at the end of the week helps to increase the authenticity of the repeated reads.

Readers Theatre. Another strategy, called Readers Theatre, can be a highly motivating and authentic means for practicing fluency (Antonacci & O'Callaghan, 2012; Cahill & Gregory, 2011; Kuhn & Levy, 2015; Young & Rasinski, 2009).

Readers Theatre can be defined as "a performance of a written script that demands repeated and assisted reading that is focused on delivering meaning to an audience" (Young & Rasinski, 2009, p. 4). Readers Theatre does not incorporate the use of props or scenery to supply the message of the story, and readers must practice delivering the meaning of the story accurately using their expressive voices (Antonacci & O'Callaghan, 2012; Young & Rasinski, 2009). Kuhn and Levy (2015)

eloquently explain the benefit of Readers Theatre: "it gives students a purposeful and authentic context for repeatedly reading a text and encourages them to respond and to interpret literature through their expressive rendering of scripts" (p. 94).

Readers Theatre is another strategy that offers great flexibility in how it is implemented in the classroom. One of the first considerations is the selection of the script for reading (Antonacci & O'Callaghan, 2012; Young & Rasinski, 2009). Kuhn and Levy (2015) provide a few suggestions for this process. First of all, they advise scripts contain content and vocabulary that is both appropriate for the age of the students, but also interesting and engaging. The authors recommend various sources for scripts including websites, basal readers, poetry, adapting favorite trade books, or having students write scripts in small groups or as a class. Scripts should be sufficiently challenging for students. Teachers also have flexibility in terms of how they would like to group students, or if they would like to differentiate the difficulty of the reading level within the script (Antonacci & O'Callaghan, 2012).

Students need ample preparation and practice for the Readers Theatre process to be most effective, and they can be supported by incorporating the general fluency methods (Young & Rasinski, 2009). Including a read aloud of the script can provide a model of fluent, expressive reading and can help support the students' understanding of the text (Kuhn & Levy, 2015). Discussion of the text is also important, so that the teacher can ensure students understand the narrative plot and feeling associated with the script, or content and vocabulary if the script is informational (Antonacci & O'Callaghan, 2012). Furthermore, the rehearsal of the

script should be facilitated either through an assisted read with a more proficient reader (Young & Rasinski, 2009), or by means of feedback to improve various aspects of the students fluency (Antonacci & O'Callaghan, 2012). Finally, repeated reading of the script will help the student develop prosody and expression, as well as accuracy and automaticity (Young & Rasinski, 2009). Performance of the script can occur for a variety of audiences throughout the school, or guests can be invited into the classroom (Kuhn & Levy, 2015).

Additional fluency recommendations. Students need intentional and explicit instruction regarding the multiple dimensions that are inherent to fluency (Cahill & Gregory, 2011; Rasinski, 2014b). Furthermore, fluency instruction needs to incorporate the appropriate use of expression and phrasing; it cannot only focus on accurate and automatic word recognition (Kuhn & Levy, 2015; Rasinski et al, 2009). The use of text genres meant to be performed, such as poetry, song lyrics, and scripts, can support expressive reading and provide a more authentic purpose for repeated readings (Antonacci & O'Callaghan, 2012; Rasinski, 2014b; Young & Rasinski, 2009). The ultimate goal of reading is to comprehend text; the construction of meaning by readers should always be present during fluency work (Kuhn & Levy, 2015; Rasinski, 2014a). Finally, it is important to remember that DIBELS fluency data alerts educators as to a possible reading problem; however, it does not provide the underlying cause of the issue (Good et al., 2011; Murray, Munger, & Clonan, 2012). A student struggling with fluency may have additional decoding issues that must be addressed before fluency interventions can be effective (Murray et al., 2013).

Effective Professional Development for Implementation

In order for students at-risk for reading failure to progress effectively, teachers must receive support regarding best literacy practices; "This is essential to the success of RTI and of struggling students because it is teachers who are responsible for assessing and treating students" (Gillis, 2017, p. 45). Professional development can occur in a variety of different ways; however, the goal or end result of the process is for the improvement of student learning (Bean, 2009; Guskey, 2002). Guskey (2002) defines it in this way, "Professional development programs are systematic efforts to bring about change in the classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of students" (p. 381). In order to support the diverse needs of students in their classrooms and continue to refine their craft, teachers need and want professional development opportunities that improve the achievement of their students (Bill & Melinda Gates Foundation, 2014). The effectiveness of some professional development opportunities has been questioned; this emphasizes the importance of developing knowledge as to what constitutes effective professional development (Bean, 2009; Bill & Melinda Gates Foundation, 2014; Guskey, 2002; Learning Forward, n.d.).

Standards for staff development. The National Staff Development Council worked to establish standards that serve as a foundation for advancing quality and impactful professional development in schools (Hirsch, 2007). These standards are organized and highlight the importance of three general categories: context, process, and content (Bean, 2009; Learning Forward, n.d.). Attention to these standards are

important to those providing professional development (Bean, 2009; Hirsch, 2007). Revision of the standards occurred in 2011, resulting in Standards for Professional Learning (Learning Forward, n.d.). These standards are a set of expectations for professional learning; "the standards and their descriptions establish quality measures related to how well professional learning informs and develops educator knowledge, skills, practices, and dispositions to increase learning for all students" (Learning Forward, n.d., p. 13). The seven standards form the essential elements for professional learning, and include: learning communities, leadership, resources, data, learning designs, implementation, and outcomes (Learning Forward, n.d).

Considerations of a teacher change model. Many professional development programs and initiatives do not recognize the impact of the change process which is detrimental to its effectiveness (Bean, 2009; Guskey, 2002). Professional development activities are often presented in a format that opposes the change process; the beginning goals of professional development are to initiate a change in teachers' perceptions. This format is rarely effective since attitudes and beliefs often change after the implementation phase; changes occur after teachers have seen clear evidence of the practices in their own classrooms (Guskey, 2002). Guskey (2002) summarizes his Model for Teacher Change stating "the point is that evidence of improvement or positive change in the learning outcomes of students generally precedes, and may be a pre-requisite to, significant change in the attitudes and beliefs of most teachers" (p. 384).

Guskey (2002) offers three considerations for preparing professional development activities based off his Model for Teacher Change. One implication is to recognize that change can be a difficult process for teachers and one that will be gradual. He further explains that change often requires additional work, and possible risks of failure that can be uncomfortable or anxiety producing. Another implication is that teachers must receive feedback on the effects of student learning. He emphasizes, that based on behavioral principles, success with new practices will provide reinforcement for continuation while unsuccessful attempts will likely be abandoned. Finally, he emphasizes the importance of professional development being an on-going and continual process. He states, "change occurs mainly after implementation takes place and there is evidence of improved student learning, continued follow-up, support, and pressure following the initial training is even more crucial" (p. 388). Professional development activities need to be continuous and ongoing rather than a one-time event.

Teachers' views of professional development. In *Teachers Know Best*, a study done by the Bill and Melinda Gates Foundation (2014), teachers identify their own professional development needs. One finding suggests that professional development offerings are not relevant or connected to their work of helping students. Many professionals indicate they are not well prepared for analyzing data in order to differentiate instruction. In the study teachers identified the characteristics of an ideal professional development experience. The overwhelming description involved providing relevant and interactive content: "focus less on presentations and lectures,

and more on opportunities to apply learning through demonstrations or modeling and practice" (p. 4). Additionally, teachers indicated the professional development opportunities should be sustained over time and have potential to help plan and improve instruction.

Another finding was that teachers see value in collaborative practices such as research-supported professional learning communities (PLC), but that these practices are not well executed. Collaboration is valued among teachers, but few teachers only seven percent, report working in a school with a strong collaborative model.

Teachers suggest ways to improve collaboration by including "a structured agenda and objectives, mutual accountability for those who participate so that everyone is invested in the work, and protocols for giving and receiving feedback" (p. 8).

Additionally, teachers identify insufficient time as a barrier for making this type of work more effective.

Overall, the study finds that teachers view professional development as viable and important for learning. When teachers spend professional development time focused on student learning it is highly satisfying; "learning activities that directly support teacher practice, such as planning and reflecting on instruction, are valued much more positively by teachers, as they tap into their motivation to help students learn" (p. 11).

Summary

DIBELS is a highly utilized assessment tool that many schools use within their RTI system; however, educators have been misguided in how to use this data to

inform instruction and plan educational interventions (Amendum et al. 2016; Kaminsky & Cummings, 2007; Shanahan, 2018). Literature has been examined in order to focus on the purposes of DIBELS, define the literacy construct that is in alignment with each subtest, and to provide instructional strategies and recommendations for students identified at-risk. The DIBELS assessment functions from a behaviorist perspective (Li & Zhang, 2008). Reading instruction from the behaviorist view explains reading development as a set of discrete skills that students need to master (Tracey & Morrow, 2012). Furthermore, skills are taught systematically, explicitly, and sequentially (Tracey & Morrow, 2012). This paper also identifies with scaffolding theory in which temporary supports are provided to learners to guide their ongoing progress (Clark & Graves, 2005; Wood et al., 1976).

DIBELS Next is an assessment system that when used with fidelity can be an effective identification and monitoring tool for at-risk students (Amendum et al., 2016; Shapiro et al., 2012). DIBELS serves as a universal screener and provides indicators as to students' overall reading proficiency (Good et al., 2011). DIBELS also serves as a progress monitoring tool by providing consistent feedback about student growth and effectiveness of instruction (Good et al., 2011). DIBELS is one measure to consider in instructional planning, and it is not diagnostic in nature (Wixson & Valencia, 2011). Each DIBELS Next subtest should be understood and discussed in terms of the literacy construct it represents (Shanahan, 2018). Teachers can better support students when planning meaningful literacy activities (Amendum et al., 2016). Good et al. (2011) explain phonemic awareness is assessed through the

FSF and PSF subtests. They state the alphabetic principle and basic phonics serve as the foundation for the NWF assessment. Advanced phonics skills, fluency, and comprehension are assessed using the DORF measure.

Definition of terms and instructional considerations and strategies are provided for phonemic awareness, phonics, and fluency constructs. Phonemic awareness refers to the understanding that spoken words are made up of individual sounds called phonemes (Ehri et al., 2001). Phonemic skills fall along a continuum with blending and segmenting critical to reading and spelling (O'Connor, 2011). Strategies involve word play, manipulatives, kinesthetic movements, and often letters to link phonemes to the alphabetic principle (Mraz et al., 2008; O'Connor, 2011; Yopp & Yopp, 2000). Phonics refers to an understanding of the relationships between letters and sounds, and how they come together to form words (Beck & Beck, 2013). Students develop word reading skills through a series of phases (Ehri & McCormick, 1998). Systematic and explicit instruction can provide scaffolds for learning in each of these stages (Beck & Beck, 2013). Successive blending and building words strategies are beneficial for beginning readers (Beck & Beck, 2013; Cunningham, 2011). Multisyllabic decoding instruction is important for older readers (O'Connor, 2007). No matter the age of the student or the skill being learned transfer and application must be applied to connected text. Fluency, the final construct, refers to accuracy, automaticity, and prosody with comprehension as the final outcome (Rasinski, 2009). Modeling of fluent reading, assisted reading, and repeated readings are general practices for improving fluency (Rasinski, 2014a). The Fluency

Development Lesson and Readers Theatre provide beneficial structures for advancing these skills (Kuhn & Levy, 2015).

In order for at-risk students to continue to make progress, teachers must further their knowledge and receive support regarding best practices in literacy instruction. Professional development is an important means for improvement in student achievement (Bean, 2009). Standards for Professional Learning identify essential elements to this process (Learning Forward, n.d.). Furthermore, professional development initiatives need to recognize the impact of the change process; understanding that teacher beliefs and attitudes often change following implementation when there is clear evidence of improvement (Guskey, 2002). Finally, teachers want and need relevant information connected to their work of helping students (Bill & Melinda Gates Foundation, 2014). Teachers indicate they need additional information regarding the analyzing of data to differentiate instruction, and require professional opportunities, sustained over time, set within a strong collaborative model (Bill & Melinda Gates Foundation, 2014). Professional activities, based on research in this project, can support effective teacher practices and benefit student achievement especially for students at-risk for reading failure.

Conclusions

The DIBELS assessment works as part of an RTI system in order to support students at-risk for reading difficulties (Amendum et al., 2016; Wixson & Valencia, 2011). The premise of this system is to identify those students early using universal screening data, so that intensive instructional supports can scaffold students and

effectively accelerate their learning to close the achievement gap (Fuchs & Fuchs, 2006; Gillis, 2017). Progress monitoring information can provide specific, skill-based data to inform the effectiveness of interventions and student learning (Fuchs & Fuchs, 2006; Gillis, 2017; Wixson & Valencia, 2011). DIBELS is one piece of information, within a system of literacy support, which can provide efficient and useful information to enhance learning outcomes when used with fidelity (Amendum et al., 2016; Good et al., 2011; Shapiro et al., 2012; Shanahan, 2018).

Although DIBELS Next is part of the assessment system, the system demands knowledgeable and effective educators who collaborate as problem-solving teams (Shapiro et al., 2012). It is these educators that must have advanced knowledge regarding assessment practices and purposes, data analysis and interpretation, and a broad array of effective instructional strategies to meet students' developmental needs (Amendum et al., 2016; Fuchs & Fuchs, 2006; Gillis, 2017). Furthermore, educators must be equipped with these skills, and be provided with ongoing support and opportunities, to learn how to effectively accomplish meeting the diverse reading needs of all students in their classrooms (Gillis, 2017). The intent of this project is to do just that: to educate elementary teachers regarding the purposes of the DIBELS Next assessment, and how it can be used to appropriately inform instruction. It is of utmost importance to provide information and support to teachers so they can make effective data-based decisions and deliver appropriate and intensive instruction to help students improve their overall reading proficiency.

Chapter Three: Project Description Introduction

DIBELS measures are utilized within many district's RTI systems, but the lack of understanding surrounding the purpose and limitations of this assessment has resulted in less than appropriate usage and defective instructional planning (Amendum et al., 2016; Deeney, 2010; Kaminsky & Cummins, 2007; Shanahan, 2018). This obliviousness has produced compromised 'instructional validity,' including teaching to the test and a narrowed view of the foundational literacy concepts (Amendum et al., 2016; Deeney, 2010; Shanahan, 2018). Educators must have advanced knowledge and understanding regarding assessment practices and purposes, data analysis and interpretation, and have a toolbox of effective instructional strategies to meet a wide range of literacy needs (Amendum et al., 2016; Fuchs & Fuchs, 2006; Gillis, 2017; Shapiro et al., 2012). In order to close the achievement gap for at-risk learners, teachers must further their knowledge through collaborative professional learning that is inclusive of best practices in literacy assessment and instruction (Bean, 2009; Bill & Melinda Gates Foundation, 2014; Gillis, 2017).

The aim of this project is to equip educators with an understanding of the appropriate uses and limitations of DIBELS, and how it can be used to effectively inform instruction that supports the reading needs of at-risk learners. The project information will be provided in an ongoing professional development model and is grounded in professional literature. The remainder of this chapter will provide a thorough description of each of the project components and the research that supports

them. Additionally, a project evaluation to help determine the success of the project will be discussed. Furthermore, conclusions from this project will be drawn and plans for implementation will be included.

Project Components

A series of professional development sessions, held within the context of data review meetings and grade-level professional learning communities (PLCs), will be provided for elementary educators who already use DIBELS as a universal screener and progress monitoring tool. The goal is to inform teachers of how DIBELS can be used more effectively within a MTSS structure to support the learning needs of developing readers. It is the intent that this foundational information will help to clear up misconceptions and misuses surrounding the DIBELS assessment. There are three general objectives this project has set out to accomplish. The first is to provide teachers with information regarding the purpose of DIBELS through discussion of both its uses and limitations as an assessment tool. Second, the broad literacy constructs that DIBELS serves as an indicator for will be explored by fully defining the literacy concept and providing general instructional recommendations. Finally, examples of teaching strategies that can be utilized to support the needs of students experiencing reading difficulties will be highlighted. The following resources were created to support professional learning tied to these objectives.

DIBELS: Why, Purposes & Limitations

The first session focuses on educating teachers regarding the purpose and limitations of the DIBELS assessment by providing an overview of what DIBELS is

and what DIBELS is not within the context of MTSS (Appendix A). When users understand the intended purpose of assessments and use them with fidelity, DIBELS can be an effective tool for identifying and monitoring students (Amendum et al., 2016; Good et al., 2011; Shapiro et al., 2012). This DIBELS overview should be presented to all teaching staff regardless of grade level because it provides a common understanding and foundation for future sessions.

The session will begin with participants activating their thinking around DIBELS by responding to a choice of prompts that get at the core assumptions or beliefs the individuals currently holds regarding DIBELS. The note sheet that is provided for this session will have a place for educators to record their response (Appendix B). After sharing out some reflections, the informational session will begin. Educators will understand that DIBELS purpose within MTSS are two-fold: to identify at-risk students through the universal screening instrument and to provide feedback regarding the effectiveness of instruction and student growth through progress monitoring (Fuchs & Fuchs, 2006; Gillis, 2017; Good et al., 2011; Wixson & Valencia, 2011). Furthermore, participants will appreciate the purpose of DIBELS as an indicator (Good et al. 2011) and a general outcome measure (Deno, 2003; Fuchs & Deno, 1991). As the educators learn about the purposes of DIBELS they will be encouraged to record any reflections, connections, or directions on their notes page (Appendix B). The limitations of the DIBELS assessment will be provided immediately following. The limitations are geared toward many of the misconceptions and misuses that have been identified in the literature (Amendum et

al., 2016; Deeney, 2010; Kaminsky & Cummings, 2007; Shanahan, 2018).

Limitations of the assessment include that DIBELS cannot be used for diagnostic purposes, it should not be the only source to consider, and that the DIBELS assessment itself should not be the goal of instruction. Participants will again be encouraged to note their thoughts regarding any of these concepts on the recording page. Finally, the participants will get a preview of how each subtest is an indicator of a larger literacy concept. This session will conclude with teachers reflecting on this content through the use of an exit ticket and session feedback form (Appendix C).

DIBELS: Aligning Literacy Constructs to Subtest Measures

The focus of the second component is drawing a connection between foundational literacy concepts and the corresponding DIBELS subtests. Educators that understand the underlying literacy components will be able to support their students' reading growth using thoughtful, meaningful, and integrated literacy activities (Amendum et al., 2016; Kaminsky & Cummings, 2007). On the contrary, a lack of awareness often results in teaching to the test and a disregard for the actual literacy skills and how they are defined (Deeney & Shim, 2016; Samuels, 2007; Shanahan, 2018). The literacy pillars of phonemic awareness, phonics, and fluency are explored in great depth within this presentation (Appendix D). Each concept begins with discussion of its definition and provides foundational information for further understanding. Next, general recommendations for teaching students, as outlined in the research, are summarized. Finally, a sample of instructional strategies for each concept are detailed through strategy guides (see following section for

further details). The notetaking guide can be used for educators to record thoughts for each literacy concept (Appendix E).

In contrast to the first project component ("DIBELS: Why, Purposes, & Limitations"), this presentation should not be utilized for all staff in its entirety or serve as the foundation for one professional learning session. It is highly recommended to spend time reviewing each of the literacy components and constructs that are most applicable to the grade level teams and the needs of their students. For example, phonemic awareness and basic phonics would be of focus when working with the kindergarten grade group, but multisyllabic phonics instruction and fluency would be a more appropriate fit for the fifth grade teachers. The information provided within this slideshow should be used flexibly to meet the needs of students and staff. It is further suggested that only one literacy construct is presented per session to ensure deep understanding of the topic.

Phonemic Awareness, Phonics, & Fluency Instructional Strategy Guides

The purpose of the guides is to provide teachers with a summary of a sample of research-based strategies and recommendations for teaching the underlying literacy constructs of phonemic awareness, phonics, and fluency, rather than teaching to the DIBELS test itself. The strategy guides are included as slides in the slideshow "DIBELS: Aligning Literacy Constructs to Subtest Measures (Appendix D)." The strategies can be shared in the context of understanding the literacy construct, or can be revisited as DIBELS data necessitates the need for focused strategies in these areas. The guides provide a starting point for understanding the research-based

strategy. Further discussion, examples, resources, and coaching can be provided as requested by teachers or when the data flags a need for instruction. It is highly recommended to print the strategy slides as full page documents for the participants.

The phonemic awareness strategy guide includes strategies that focus on the two most critical components of phonemic awareness: blending and segmenting phonemes (Cunningham, 2011; O'Connor, 2011). When children are decoding unknown words they employ the skill of blending each letter sound into a word, and when students write or spell they must have the ability to segment sounds in words to transcribe the letters (O'Connor, 2011). Although phonemic awareness activities focus on oral activities and spoken sounds, phonemic awareness instruction has been found to be most effective once letters of the alphabet are included (Ehri et al., 2001; Foorman et al., 2003; Keesey et al., 2015; O'Connor, 2011). Some of the strategies incorporate letter-sound correspondences. The strategies included for teaching blending are: Blending Games – Voices and Riddles, Blending Slides, and Drive-Through Blending. The instructional strategies that focus on segmenting include: Sound or Word Boxes and Kinesthetic Segmentation.

The phonics strategy guide includes ideas and recommendations for both basic phonics and multisyllabic word instruction. The first strategy included is Successive Blending. Explicit instruction how to blend sounds together is essential for at-risk learners (Beck & Beck, 2013; O'Connor, 2007). Two types of building words strategies are outlined: Making Words and Word Building. These can be used to practice phonics skills at many levels including CVC words, blends, digraphs, CVCe,

CVVC, r-controlled vowels, and other vowel combinations (Beck & Beck, 2013). Many struggling students benefit from explicit and systematic instruction in decoding multisyllabic words (Beck & Beck, 2013; Knight-McKenna, 2008; O'Connor, 2007). Strategies outlined for teaching multisyllabic words include: Teaching Affixes and Morphemes, Teaching Helpful Rules, Teaching Syllable Types, Successive Blending, and the "BEST" Strategy.

Finally, the fluency strategy guide includes two instructional approaches for improving the multidimensional aspects of reading fluency. Strategic instruction must incorporate fully the concept of fluency; this means accuracy, automaticity, and prosody with comprehension as the major outcome (Rasinski et al., 2009; Young & Rasinski, 2009). Effective fluency instruction incorporates three general practices: the modeling of fluent reading, assisted reading, and the use of repeated readings (Rasinski, 2014a). The two strategies included incorporate those general practices in the context of Readers Theatre and the Fluency Development Lesson (FDL).

Project Evaluation

To evaluate the effectiveness of this project, teachers will be asked to complete a Google Form in which they are able to reflect on their learning and provide feedback regarding each session. There are two separate surveys that have been created for the project evaluation. The first survey corresponds with the first project component "DIBELS: Why, Purpose & Limitations" (Appendix C). Participants will reflect on the session information by completing two or more prompts from the shaping up summary, and then will rate their overall experience.

The second survey was created in accordance with the second project component "DIBELS: Aligning Literacy Constructs to Subtest Measures" (Appendix F). This survey also contains a reflection component and questions to evaluate the professional development session(s). The survey was written in a broad manner so that it can be used for sessions that focus on any of the explored literacy components whether it be phonemic awareness, phonics, or fluency. The reflection components will help to provide information regarding the outcomes or takeaways the educators are leaving the session with. Teachers will also be responding to a questions regarding what additional support they may need to implement what they have learned. Session feedback will be deemed successful if the majority of responses fall in the strongly agree or agree categories.

Furthermore, the use of DIBELS benchmarking and progress monitoring data will be utilized in determining the effectiveness of supports for at-risk readers. This data will be monitored at a minimum of every six to eight weeks during WIN Cycle Data Review meetings if not sooner during monthly grade level PLC. The "Status Report" and "Effectiveness of Instructional Levels" reports will be examined at the classroom-level and grade-level. Data will also be analyzed at an individual level using "Student Progress Monitoring Graphs" and "Effectiveness of Instructional Levels" reports. This data can be compared with data from previous academic years. The goal is to see improved levels of achievement at both a systems and individual level. The percentages of students in each benchmark category will be helpful in making this determination. Although data can be compared across years, it is

important to note that this comparison uses a different sample of students. Data can also be utilized to determine benchmark levels as students move across grade levels to ensure there is continued progress with the same subset of students.

Project Conclusions

DIBELS Next is a highly utilized assessment making it imperative that educators understand the intended purpose and how to effectively plan instruction (Amendum et al., 2016; Hoffman et al., 2009; Kaminsky & Cummings, 2007; Shanahan, 2018). This project aims to provide teachers with knowledge regarding assessment practices and purposes and equips teachers with a small sampling of instructional strategies to meet students' identified reading needs. DIBELS can be further understood by discerning the overarching literacy component represented by each subtest (Amendum et al., 2016). Phonemic awareness, phonics, and reading fluency are explored in depth to discourage teaching to the test, and to prevent educators from narrowly defining these concepts based only on the test itself. This project intends to furnish teachers with information regarding the broader set of skills that should be taught. In turn, teachers can support literacy growth thoughtfully and with appropriate experiences that can bolster student growth and success. Instruction in each of these categories should be explicit and systematic (Beck & Beck, 2013; O'Connor, 2007; Rasinski, 2014b). The materials contained within this project serve as a foundation in which more learning can be set to occur. Educators must be provided with ongoing support and opportunities to learn if they are going to effectively meet the needs of students in their classrooms (Gillis, 2017).

Plans for Implementation

This project will be implemented during the 2018-2019 school year at my local elementary school. All teaching staff will participate in the first session, held during a staff meeting, "DIBELS: Why, Purpose & Limitations." This informational session will occur within the first three weeks of school preceding the review of fall universal screening data. This session provides a common understanding and foundation for using DIBELS within the MTSS structure.

The second component "DIBELS: Aligning Literacy Constructs to Subtest Measures" will be used flexibly across the school year with various grade levels. It is suggested that only one literacy construct be presented per session so that the concept can be explored thoroughly. These informational sessions will be provided to grade level teams at PLC meetings or during scheduled data review sessions that occur every six to eight weeks. Furthermore, the topic that is be presented to grade level teams will be in alignment with what is most applicable to the grade level. For example, kindergarten teachers would start with the concept of phonemic awareness and phonics would be discussed mid-year. The assessments, curriculum, and identified student needs will dictate the presentation of topics for each grade level. Finally, the strategy guides can be shared when each concept is being presented, can be highlighted as DIBELS data necessitates a need for that type of instruction, or a combination of the two. The strategies could serve as sessions of their own allowing for extending additional information, examples, and resources. Grade level PLCs would support discussion regarding teachers' experiences implementing the strategies or allow for coaching conversations. In order for staff to integrate ideas, continued opportunities to explore and discuss the literacy concepts and instructional strategies must be present throughout the school year.

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66

A belief I hold about DIBELS is...

OR

List 4-6 words you associate with the term "DIBELS"

Learning Targets

- Understand the use of DIBELS within MTSS
- Explain the purposes and limitations of DIBELS as a universal screening and progress monitoring tool
- Identify the literacy construct that corresponds with each DIBELS subtest measure

3

Multi-Tiered System of Supports (MTSS)

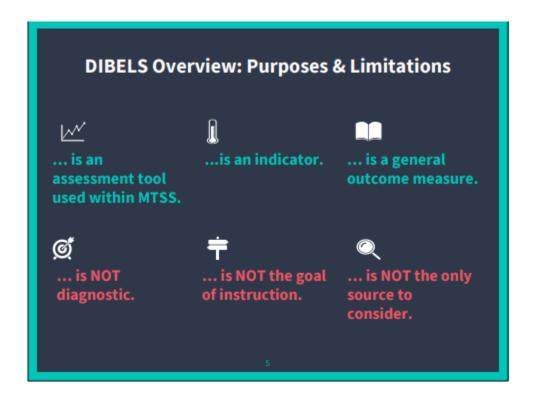
To ensure high levels of learning for every student, and to respond when students do not learn or when they need additional academic challenges.

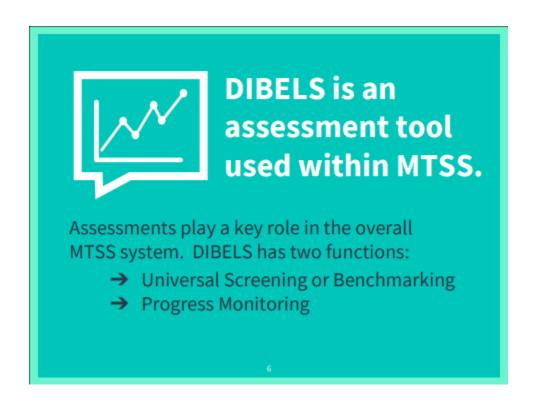
-PPS MTSS Mission

Universal Screening**

Evidence-Based Progress
Instruction Monitoring**

DIBELS can help to identify at-risk students through universal screening and provide feedback regarding the effectiveness of instruction and student growth through progress monitoring.





DIBELS is an assessment tool used within MTSS.

DIBELS as a Universal Screener

- → Benchmark assessments used 3 times per year for all students
- → A baseline measure to establish if students are at, above, or below research-based cut scores
- → Identifies students that may be at-risk for reading difficulties
- → A first step that requires "digging deeper"

7

DIBELS is an assessment tool used within MTSS.

DIBELS as Progress Monitoring tool

- → Ongoing monitoring of students identified at-risk through universal screening
- → Provides information regarding student growth and the effectiveness of instruction
- → Assists teachers in making instructional decisions (formative)
- → Provides timely data for understanding if students are making adequate progress



DIBELS is an indicator.

"An indicator is a brief, efficient index that provides a fair degree of certainty about a larger, more complex system or process." (COOC of 15 JL, 2011, p. 2)

- → Similar to general health and wellness measures
- → "Measures key components that are representative of the skill area AND are predictive of overall reading competence" (a.2.3).
- → Not a comprehensive or in-depth assessment tool



DIBELS is a general outcome measure.

General outcome measures refer to "the assessment of proficiency on global outcomes."

- → Measures do not specify which subskills may or may not be mastered
- → Indicates improvements in general reading proficiency
- → Identifies if student learning contributes to overall improvements in reading



DIBELS is NOT diagnostic.

- → DIBELS is not comprehensive
- → DIBELS data is not specific enough to address completely the next steps for appropriate interventions or planning instruction
- → Diagnostic assessments are used to "dig deeper" examining the possible problems flagged from DIBELS universal screening results



DIBELS is NOT the only source to consider.

"DIBELS was never intended to be used alone as the sole measure of a child's success but rather within a system of literacy support linked to a model of data-based decision making." (Kaminsky & Currenings, 2007, p. 1)

- → Incorporate multiple measures with different purposes
- → Other sources: standardized assessments, diagnostic measures, classroom-based measures, teacher input



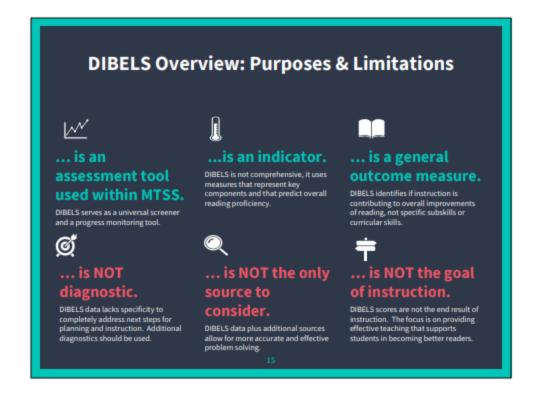
DIBELS is NOT the goal of instruction.

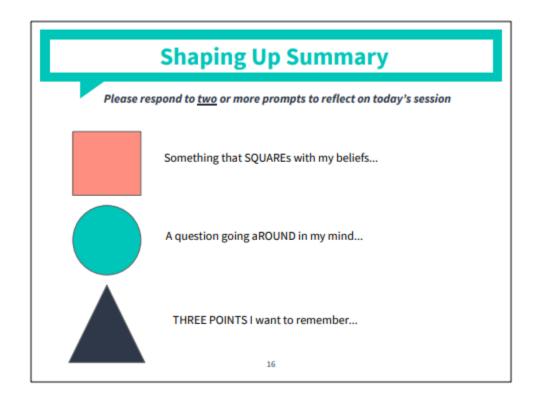
- → Each indicator, or subtest, fits into a larger understanding of reading development
- → The goal is not to artificially raise DIBELS scores, but to impact student's reading proficiency
 - ◆ Do NOT limit instruction solely to DIBELS components
 - Do NOT compromise 'instructional validity' OR misinterpret the assessment as defining the literacy construct
 - Do NOT view DIBELS as an instructional sequence

13

Each Subtest is an Indicator of A Larger Literacy Concept

First Sound Fluency Phoneme Segmentation Fluency	Phonemic Awareness
Nonsense Word Fluency	Alphabetic Principle & Basic Phonics
DIBELS Oral Reading Fluency	Advanced Phonics Fluency Reading Comprehension
DAZE	Reading Comprehension





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DIBELS: Why, Purpose & Limitations

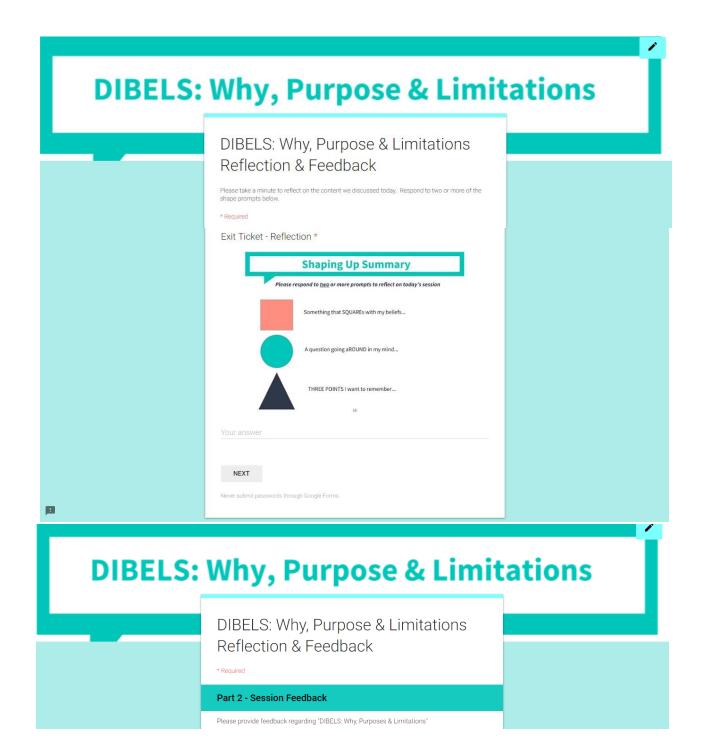
7.0			
Quickwrite:			

Purpose	REFLECTIONS What I Remember	CONNECTIONS For Me/My Classroom/Students	DIRECTIONS Actions/Steps/Discussions
DIBELS is			
DIBELS is			
DIBELS is			
		1.	

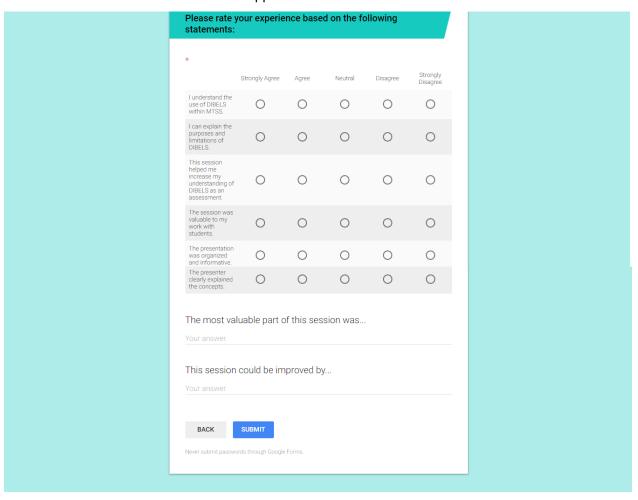
DIBELS: Why, Purpose & Limitations

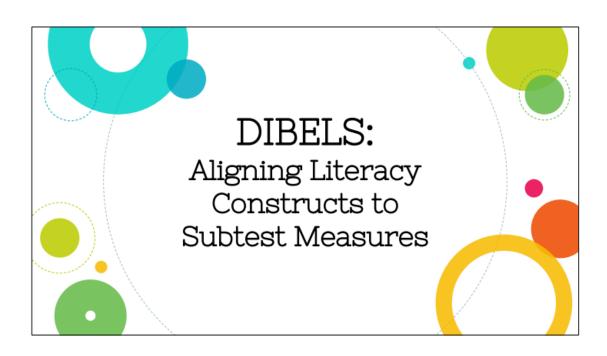
Limitations	REFLECTIONS	CONNECTIONS	DIRECTIONS
DIBELS is not			
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Notes:			

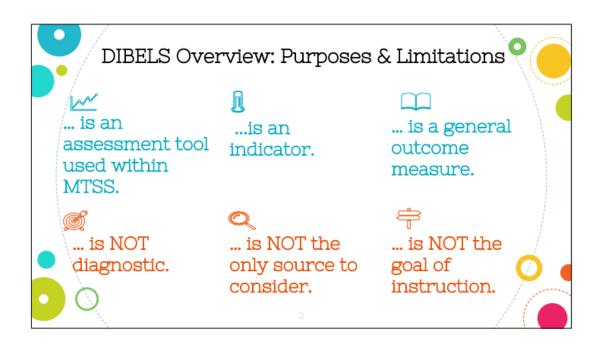
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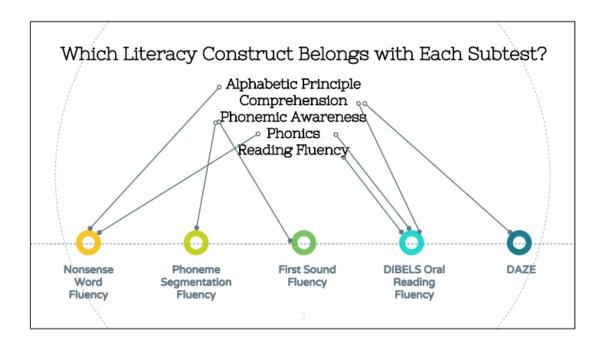


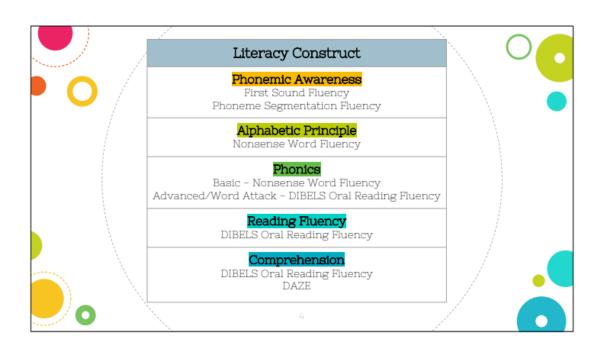
Appendix C

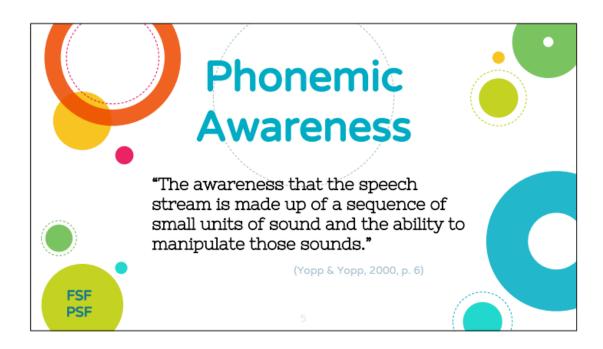


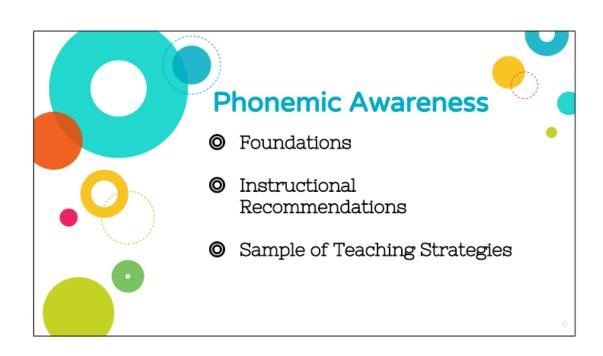


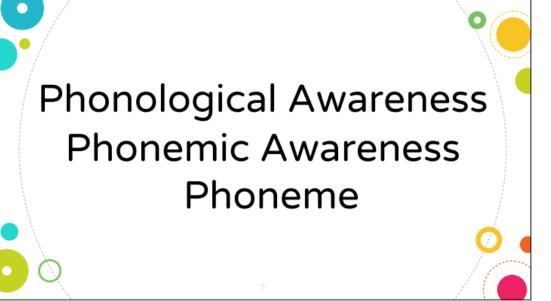


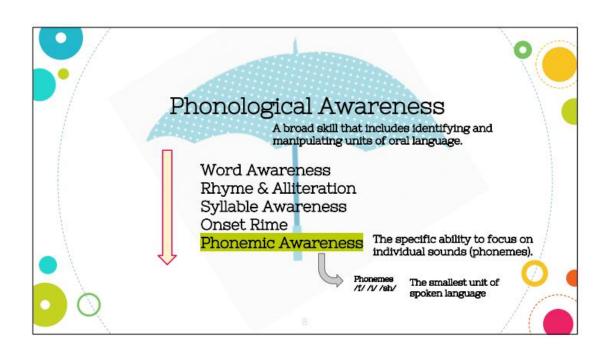


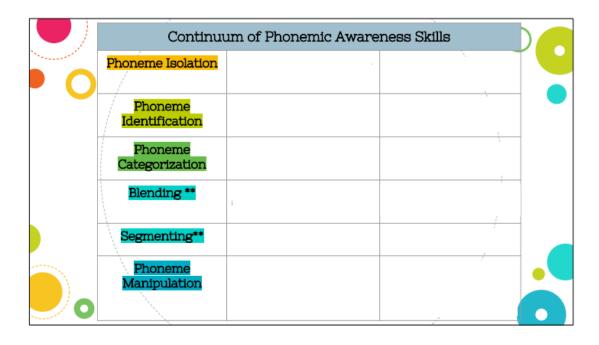


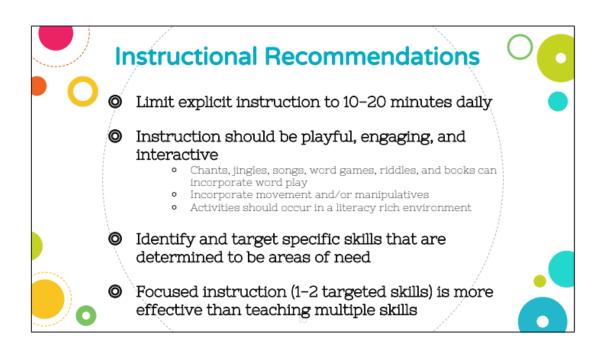


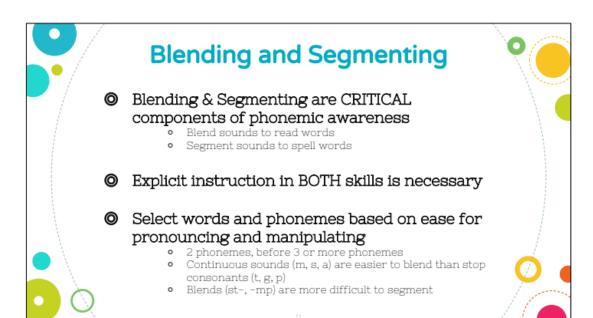


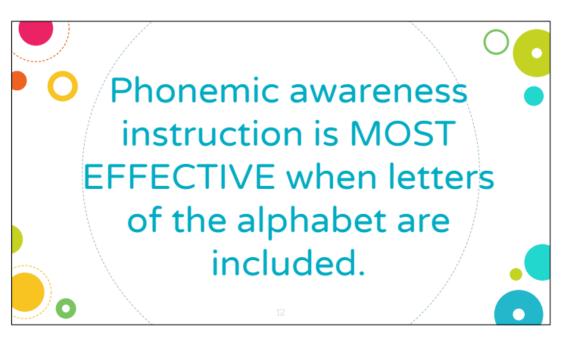








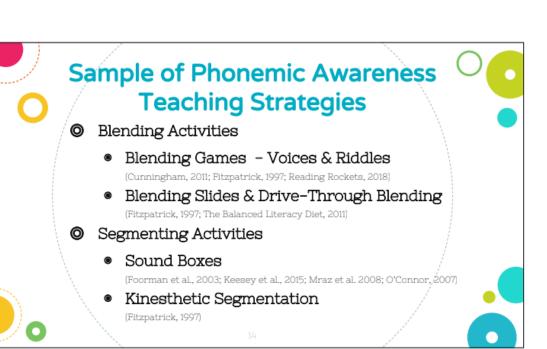




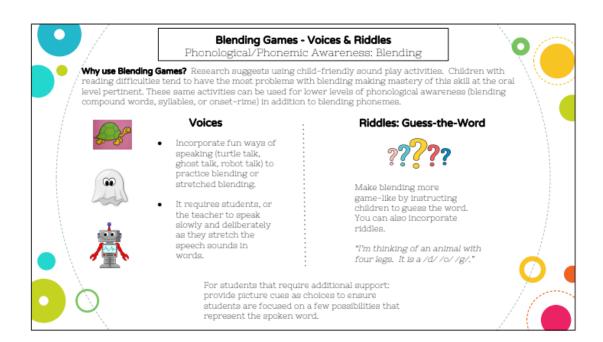


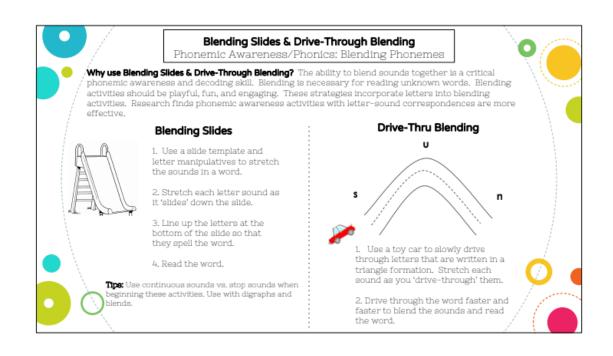
The knowledge that words are broken into speech sounds and that each speech sound can be represented by a letter or letters from the alphabet.

- This is a critical link!
- At-risk readers benefit from explicit instruction that connects these components
- Begin incorporating letters in phonemic awareness activities once students know a few letter-sound correspondences

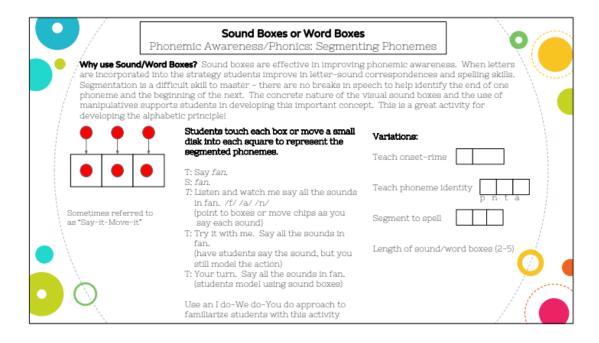


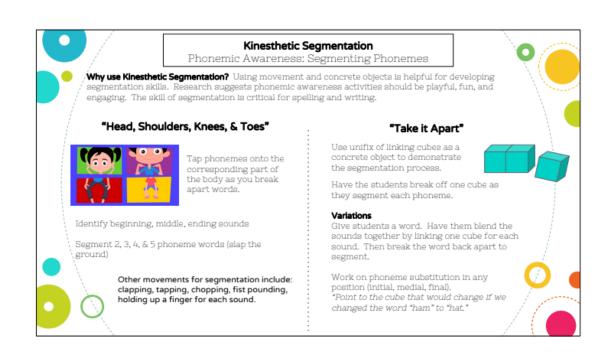
Appendix D



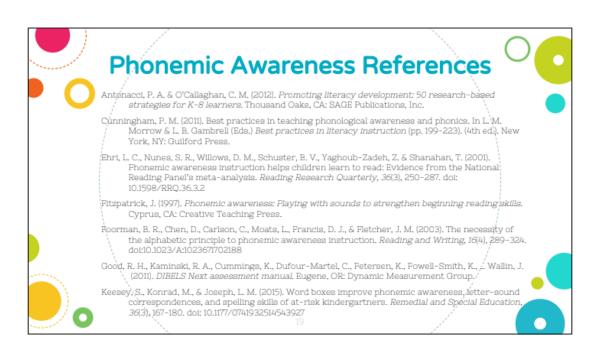


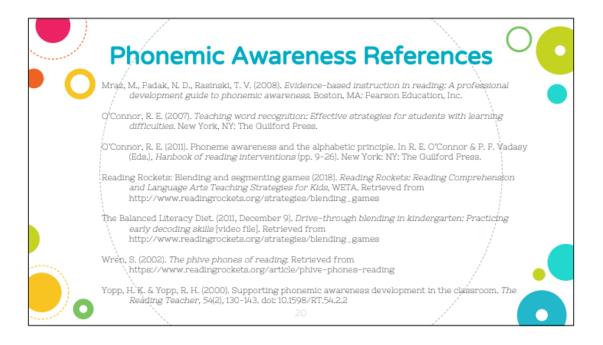
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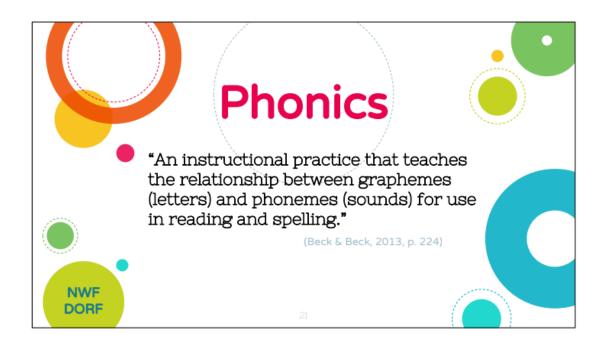


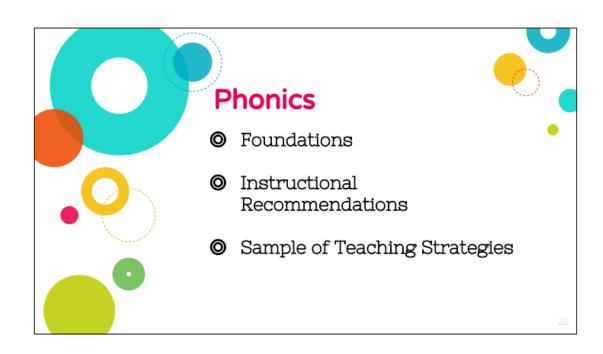


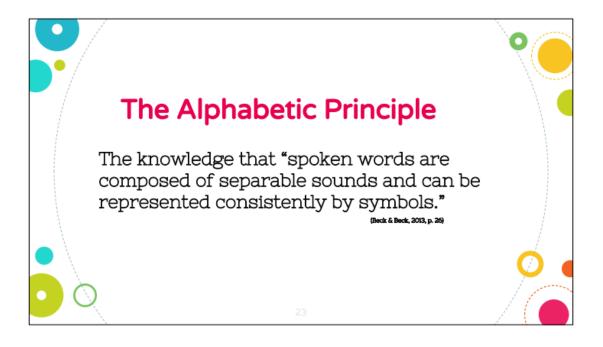
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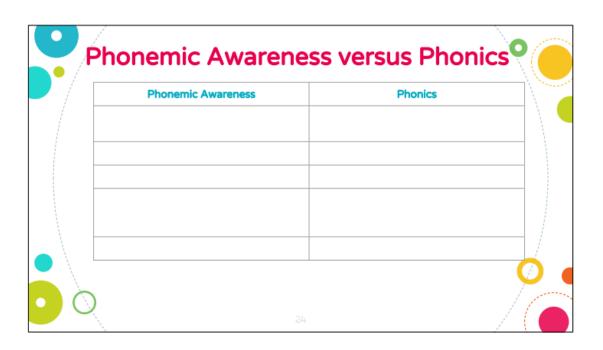


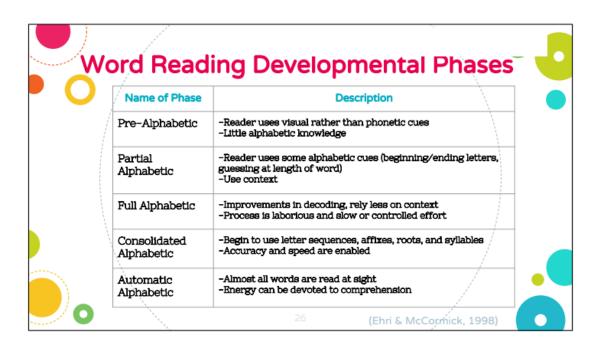


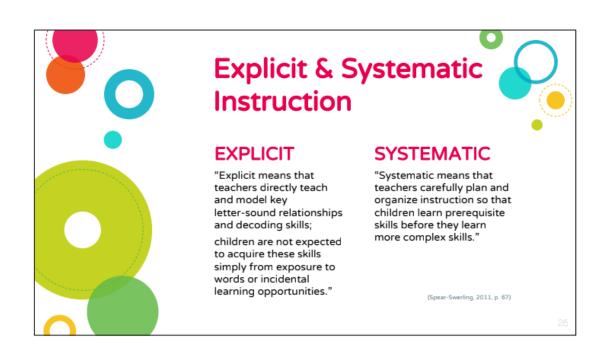


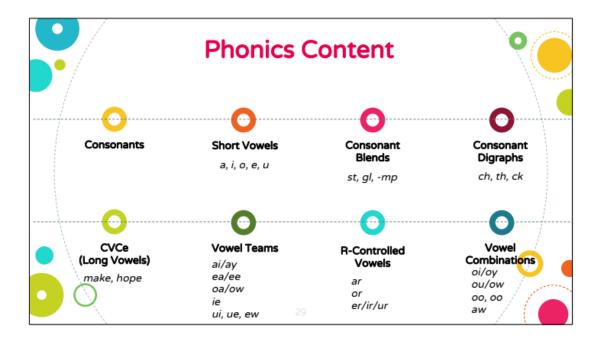


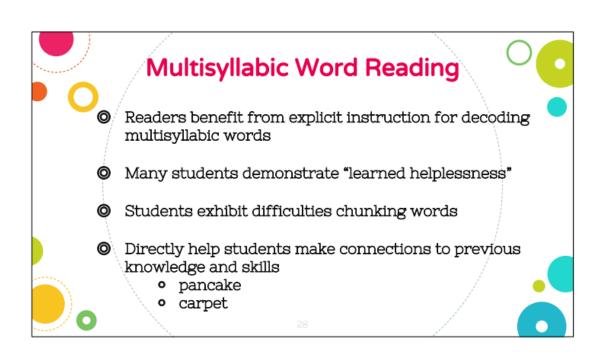














Reading Multisyllabic Words

Beck and Beck (2013) conclude that students' reading of multisyllabic words requires three interwoven skills.

Analysis

The student needs to know where to chunk, or divide, the word into syllables.

Pronunciation

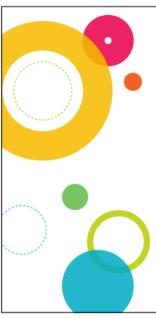
After chunking the word, the student needs to know how to pronounce each syllable.

*Vowels tend to cause the most difficulty

Synthesis

The student needs to blend, or combine, each syllable into the word.

29



Reading Multisyllabic Words

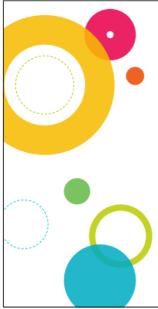
Beck and Beck (2013) conclude that students' reading of multisyllabic words requires three interwoven skills.

Analysis

The student needs to know where to chunk, or divide, the word into syllables. Incorrect Syllable Division

Inv-is-ib-i-li-ty

ext-em-por-i-zat-ion



Reading Multisyllabic Words

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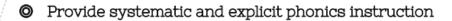
Synthesis

The student needs to blend, or combine, each syllable into the word.

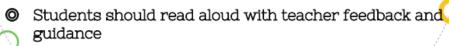
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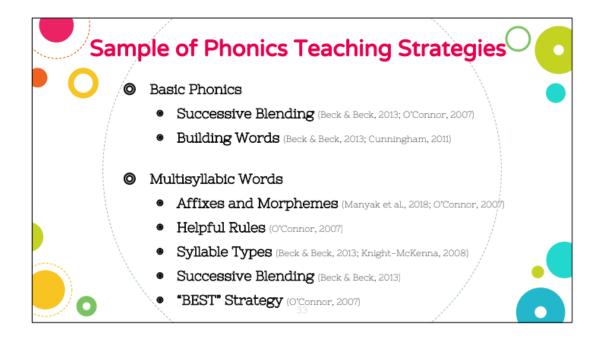
Instructional Recommendations

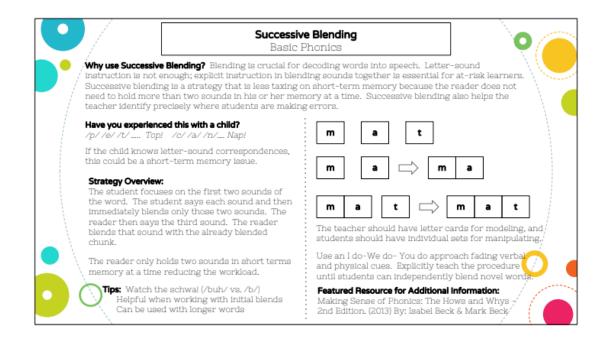


- Target instruction based on assessed deficit areas
- $oldsymbol{\odot}$ Use pseudowords or nonsense words with discretion
- O Verbalization of rules by students is not the goal
- Read connected text (don't forget about comprehension)









Building Words Strategies

Phonics

Why use Building Words Strategies? Building Words strategies can be used for many different levels of skills. These strategies require the reader to pay attention to every letter in the sequence of letters that comprise a word. There is minimal contrast from one word to another requiring the child to focus on small changes. This strategy involves increased attention to vowel sounds, discrimination among easily confused graphemes (letters), and can help support spelling, and understanding word patterns.

Making Words

Manipulate letters to make increasingly difficult words. The last word is the 'secret' word that contains all letters.

There are three components to each lesson:

- Manipulate the letters to make a list of words with minimal contrast as directed by the teacher
- Sort the previously created words based on rhyming patterns
- Transfer learning to read and spell novel words

Uses an **encoding/spelling** approach:

"Change one letter to make **cake** say **lake."** Teacher directions involve saying the word and asking students to figure out the change(s) to make the new word.

Word Building

Manipulate letters for a sequence of words that has minimal contrast, typically one letter, from the previous

Uses a decoding/reading approach:

"Remove the 1 and put the u in its place." Teacher directions involve telling the student what letter to change, and asking students to read the new word aloud.

Extensions:

- Read decodable texts to reinforce lettersound patterns and develop automaticity
- "Silly Questions" allow for additional targets decoding practice and require students to comprehend (e.g. "Can a cat rap?")
- Dictate words or sentences

Teaching Tips for Multisyllabic Words

Advanced Phonics & Word-Attack Skills

Why teach students to read multisyllabic words? Older students benefit from explicit instruction in decoding tisyllabic words. Even students who have not previously struggled may have difficulty with multisyllabic words. Many students exhibit 'learned helplessness' becoming overwhelmed and failing to attempt long words. These tips and strategies provide support for students in attacking multisyllabi words.

Analysis

The student needs to know where to chunk, or divide, the word into syllables.

- Teaching students common affixes and morphemes is a high utility strategy for both decoding and vocabulary
 - o affixes prefixes or suffixes that join at the beginning or end of base words
 - morphemes- meaningful word parts
- Teach affixes that have a consistent meaning and that are high frequency
- Use content area vocabulary to instruct on affixes and morphemes for an authentic purpose

Common Prefixes & Suffixes

58% of all words with prefixes contain un-, re-, in-, dis-

60% of all words with endings contain -ing. -ed. -s. -es

Featured Resources for Additional Information

Morphological Analysis Instruction in the Elementary Grades: Which Morphemes to Teach and How to Teach Them (2018). Patrick C. Manyak, James F. Baumann, Ann-Margaret Manyak. The Reading Teacher

Teaching Word Recognition: Effective Strategies for Students with Learning Difficulties (2007). Rollanda E. O'Connor

Teaching Tips for Multisyllabic Words (Continued p. 2) Advanced Phonics & Word-Attack Skills

Analysis (Continued)

The student needs to know where to chunk, or divide, the word into syllables.

Every Syllable Has One Vowel Sound!

Students can predict the number of syllables that are contained in a word if they are able to locate all the vowel sounds.

- Students start by underlining the vowels
- Count the number of vowels to determine the number of syllables (make sure to check if any of the vowels are teamed up)
- If students have an understanding of syllable types (see next page) this can support the chunking process
- The rule of 2s and 3s can also be helpful for breaking apart a base word:
 - If a stem begins with a vowel, chunk 2 letters
 - If a stem begins with a consonant chunk 3 letters

If it doesn't work, take off the first letter and try to follow the above rules Underline the vowels. identifies

Count the vowels. 4 (one is a team)

Where should we attempt to break up the word?

i d<u>e</u>n ti f<u>ie</u>s

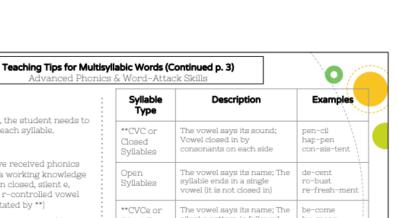
id en tif ies

Rule of 2s and 3s

ad / min / is / ter i / den / tif/ ies ad / ap / ta [tion

Featured Resource for Additional Information:

Teaching Word Recognition: Effective Strategies for Students with Learning Difficulties (2007). Rollanda E. O'Connor





After chunking the word, the student needs to know how to pronounce each syllable.

> Students that have received phonics instruction have a working knowledge of vowel sounds in closed, silent e. vowel teams, and r-controlled vowel syllable types (notated by **)

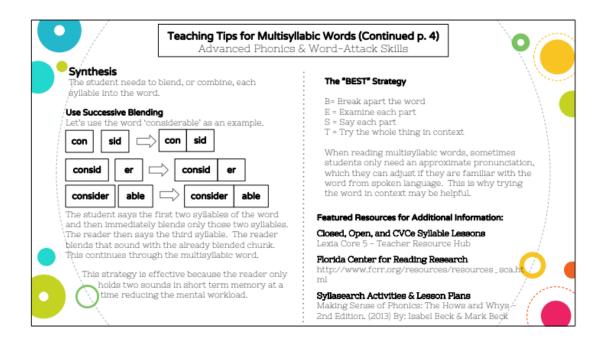
Pronunciation

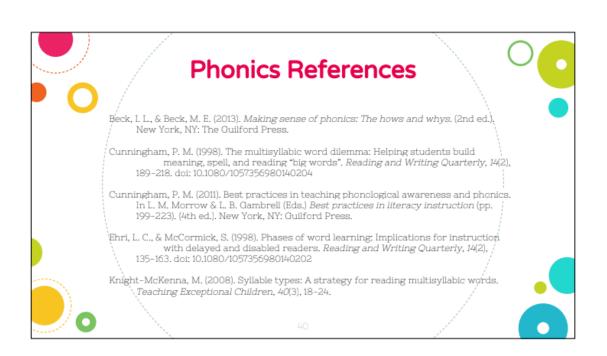
Teach Syllable Types

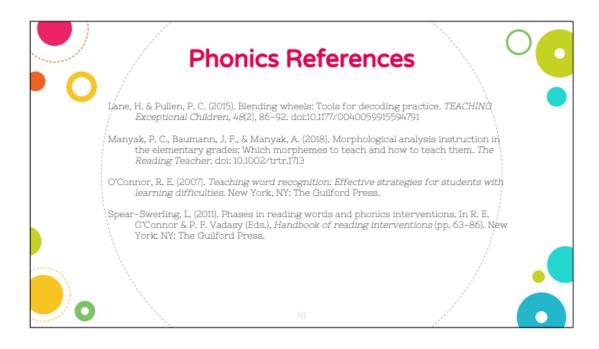
- Provide explicit and systematic instruction: each type introduced, explained, practiced, and mastered
- Multiple vowel sounds make multisyllabic word decoding difficult

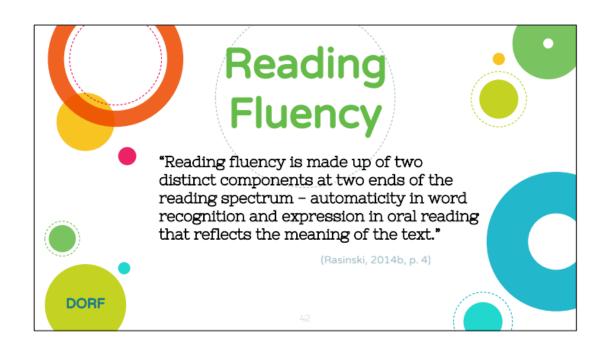
Apply these skills in connected text

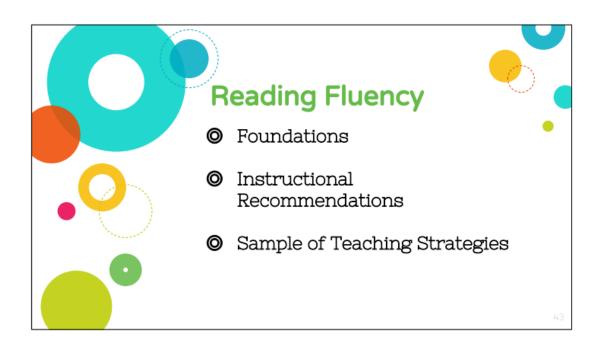
Syllable Type	Description	Examples
**CVC or Closed Syllables	The vowel says its sound; Vowel closed in by consonants on each side	pen-cil hap-pen con-sis-tent
Open Syllables	The vowel says its name; The syllable ends in a single vowel (it is not closed in)	de-cent ro-bust re-fresh-ment
**CVCe or Silent E	The vowel says its name; The silent e pattern is followed	be-come hu-mane dem-on-strate
**CVVC	Vowel teams (long vowel sound); Vowel combinations (variant sounds)	de-tail re-bound south-east
**R- Controlled	A vowel is followed by the letter r (ar, or, er/ir/ur)	mar-ket in-form
Consonant -le	A consonant followed by an -le at the end of a word	wig-gle bum-ble

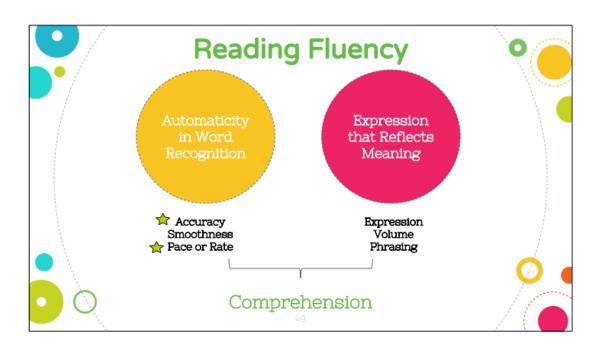


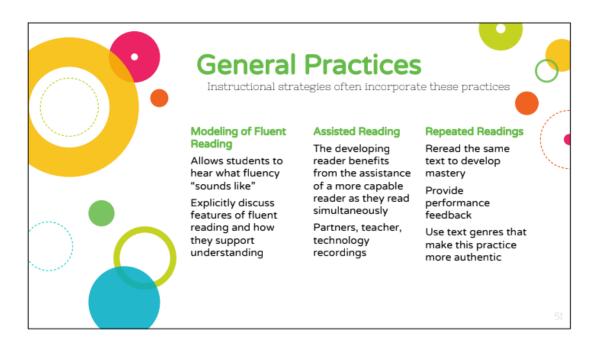


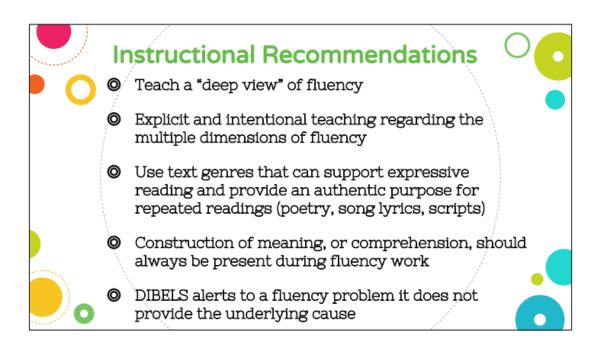


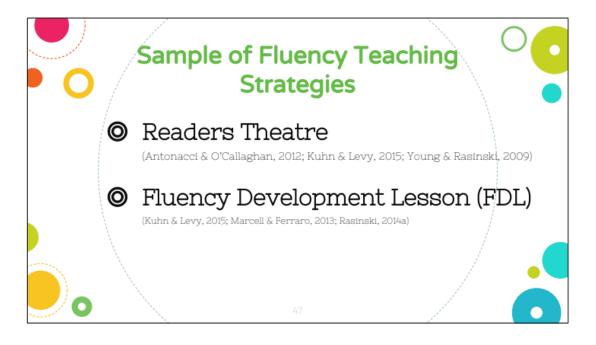


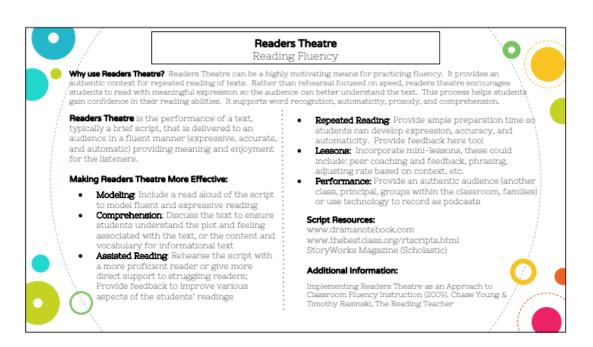












Fluency Development Lesson (FDL)

Reading Fluency

Why use the FDL model? This is a structured method for improving reading fluency that incorporates the three general principles of modeling, assisted reading, and repeated reading. This method can be used to supplement core reading instruction. Beyond increasing overall fluency, the components incorporate word study and reading comprehension.

Purpose: Students will read and understand one text well (deep) reading. Using this structure daily allows for reading many new texts (wide reading).

Time Frame: 20-30 minute daily component

Text: Short passages between 50-200 words; one copy for each student and one to display

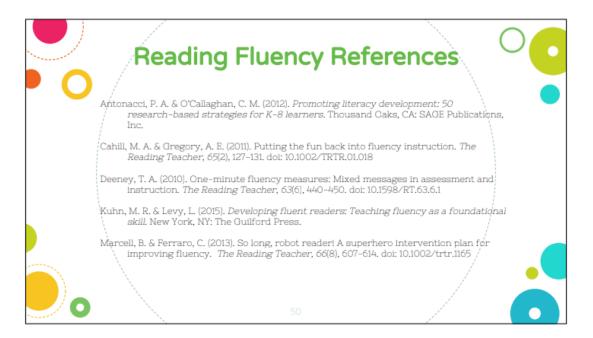
Poetry is highly recommended, but story segments, song lyrics, or informational text can be used.

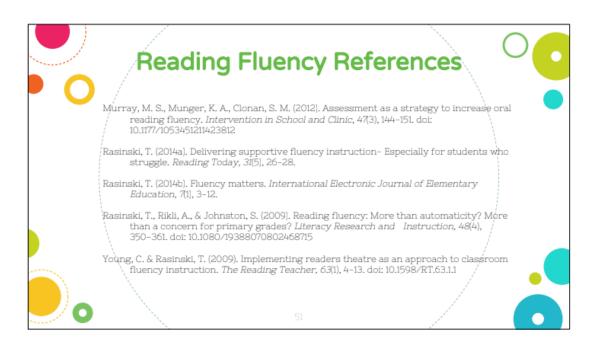
Featured Resource for Additional Information:

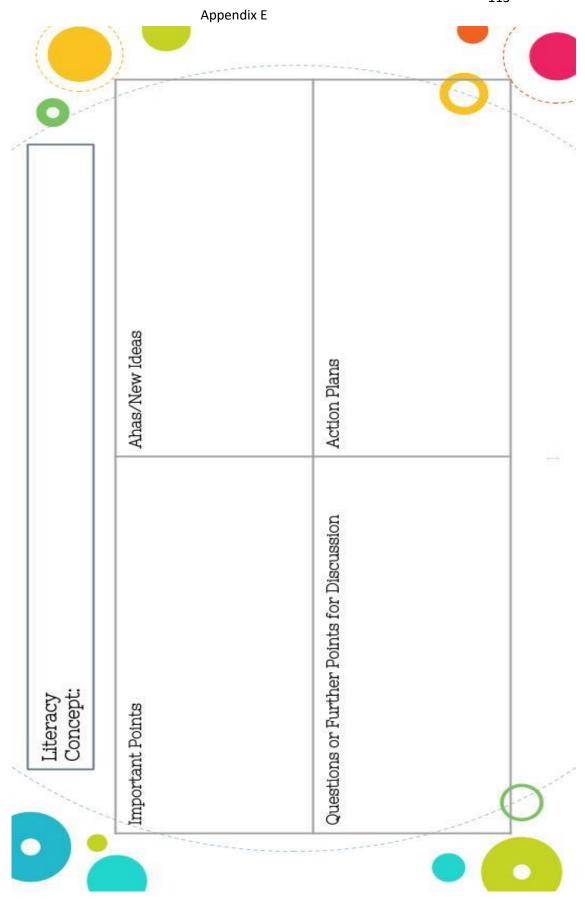
So Long, Robot Readerl: A Superhero Intervention Plan for Improving Fluency (2013). Barclay Marcell & Christine Ferraro, The Reading Teacher

The Structure

- Introduce the new short text
- Provide a fluent model reading the passage aloud several times as students follow along
- Engage students in a discussion regarding the meaning and content of the passage as well as the quality of the modeled reading
- Chorally read the passage a few times using a variety of engagement strategies
- Students are organized into pairs one partner reads the selection while the other partner listens, evaluates, and provides feedback - each partner reads the selection two or three times
- 6. Engage in brief word study activities
- Regroup as a class so students can perform, individually, as pairs or groups, and provide positive feedback
- Take the passage home to read to a family member for additional practice
- Use the passage the following day and reread to check for fluency and comprehension

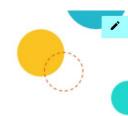






Appendix F

DIBELS: Aligning Literacy Constructs to Subtest Measures



DIBELS: Aligning Literacy Constructs to
Subtest Measures

Self-Reflection

Please reflect on the following...

Stoplight Reflection

Stop doing...

Continue doing...

Start doing...

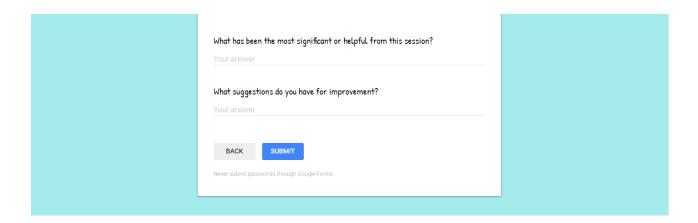
Your answer

What additional support do you need to implement what you have learned? Examples include: time during PLC's, additional resources or information, planning support, coaching, etc.

NEXT

DIBELS: Aligning Literacy Constructs to Subtest Measures

Appendix F



GRAND VALLEY STATE UNIVERSITY ED 693/695 Data Form

NAM	IE:Rebecca Garvelink_			
MAJ	OR: (Choose only1)			
	_ Adult & Higher <u>2</u> Education	<u>K</u> Educational Differentiation		Library Media
	Advanced Content Specialization	Education Leadership		Middle Level Education
	Cognitive Impairment	Educational Technology		Reading
	College Student Affairs Leadership	Elementary Education		School Counseling
	Early Childhood Education	Emotional Impairment		Secondary Level Education
	Early Childhood Developmental Delay	Learning Disabilities		Special Education Administration
	_ TESOL			
Const	LE: Understanding DIBELS tructs to Subtest Measures ER TYPE: (Choose only 1			
	X Project	•		1 0
	Thesis			
SUPI	ERVISOR'S SIGNATURE	OF APPROVAL	_Kua	rgotPhO
the co	g key words or phrases, choo ontents of your project. ERIC ://eric.ed.gov/?ti=al	C descriptors can be		
1.	curriculum based measure		6.	reading instruction
2.	progress monitoring		7.	phonemic awareness
3.	response to intervention		8.	decoding (reading)
4.	best practices		9.	phonics
5.	benchmarking		10.	reading fluency