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An analysis of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment

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Abstract

The inception of the No Child Left Behind Act as well as the report published by the National Reading Panel have caused a sense of urgency in early intervention for students with high literacy needs. Therefore, students are being required more frequently to take high stakes assessments at a younger and younger age. Many schools use the DIBELS assessment, but there are also many other assessments available. This paper presents research as to the validity of the DIBELS assessment as well as describes several other available literacy assessments to use either in conjunction with or in isolation from DIBELS. This paper then concludes with recommendations of teacher practices for literacy instruction as well as assessment of students' literacy skills.

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AN ANALYSIS OF THE DYNAMIC INDICATORS OF BASIC EARLY LITERACY SKILLS
(DIBELS) ASSESSMENT

A Graduate Review

Submitted to the

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

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by

Lisa Doering

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This Review by: Lisa Doering

Titled: An Analysis of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

Assessment

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Abstract

The inception of the No Child Left Behind Act as well as the report published by the National Reading Panel have caused a sense of urgency in early intervention for students with high literacy needs. Therefore, students are being required more frequently to take high stakes assessments at a younger and younger age. Many schools use the DIBELS assessment, but there are also many other assessments available. This paper presents research as to the validity of the DIBELS assessment as well as describes several other available literacy assessments to use either in conjunction with or in isolation from DIBELS. This paper then concludes with recommendations of teacher practices for literacy instruction as well as assessment of students' literacy skills.

Introduction

The inception of the No Child Left Behind Act in combination with the report published by the National Reading Panel caused a sense of urgency of the teaching of the “big five” ideas of early literacy, including phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2006). This legislation has led to teachers continually being held increasingly more accountable by parents, students, government officials, and the public for the learning taking place in their classrooms. It has also led to an increased need for early intervention, and therefore the need for high quality assessments that identify students’ literacy levels before they reach the third grade (Rouse & Fantuzzo, 2006, p. 352). As a result, high-stakes testing has become a very common occurrence in education, with many districts throughout the country using the Dynamic Indicators of Basic Literacy Skills (DIBELS) assessment. During the 2004-2005 school year, 8,293 schools used the DIBELS data system, which totals over 1.7 million kindergarten through third grade students (Hoffman, Jenkins, & Dunlap, 2009), making it most likely the “most frequently used single assessment of connected text reading fluency in the United States today” (Kuhn, Schwanenflugel, & Meisinger, 2010, p. 20). The fact that such a large amount of districts rely on this test would lead one to believe in its effectiveness, but research proves otherwise.

Rationale

Many schools rely heavily on the DIBELS assessment for information in regards to their students’ knowledge and success in reading and any growth they may or may not be making throughout each school year and their elementary career. Districts may also use DIBELS scores in order to predict student scores on other literacy assessments students may take when they are older. DIBELS measures the “big five” ideas of early literacy in several one minute

assessments. Unfortunately, comprehension, which is the ultimate goal of reading, is measured only on an optional assessment, which many believe is inadequate (Riedel, 2007). Instead, the focus has been on fluency and mainly the speed with which one reads. Based on test results from DIBELS, many students (and parents) are then left with the false belief that if they are reading fast, then they must be reading well. Some teachers have also begun to teach to the test, focusing on phonemic segmentation, decoding nonsense words, or other assessed skills in isolation, which reduces valuable instruction time on strategies that would have a greater effect on students' reading ability (Riedel, 2007).

Purpose of Review Result

The purpose of this review is to present a detailed overview of DIBELS as well as a large amount of research in relation to the effectiveness of this assessment. Recommendations will also be made in regards to other assessments to use either in isolation or in conjunction with the DIBELS assessment that may present more useful, specific information in regards to students' reading needs, rather than simply the speed with which they are able to read a text. Finally, this review will conclude with action steps that can be taken to assure that students are receiving quality reading instruction focused on all important aspects of literacy and quality assessments that measure each of these aspects.

This review serves to inform the positive and negative aspect of the DIBELS assessment as well as multiple other fluency assessments. Because so many districts rely heavily on one assessment, it is important that all involved understand that a different assessment or combination of multiple assessments may better serve students, teachers, parents, government officials, and the public alike. Also, this review will point to the importance of the assessment being only one part, not the focus of the literacy curriculum.

Terminology

comprehension, Curriculum Based Measurement (CBM), Dynamic Indicators of Basic Early Literacy Skills (DIBELS), fluency, fluency rubric, Informal Reading Inventories (IRIs), literacy, prosody

Research Questions to be Answered

Is the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment an appropriate measure of students' knowledge and success in reading? Are there other assessments available that would be more accurate and helpful in informing one's reading instruction? Would a combination of assessments be more beneficial?

Methodology

A thorough search of Rod Library was conducted using terms such as "reading fluency" AND "assessment", as well as "DIBELS" and "Dynamic Indicators of Basic Literacy Skills" as well as the names of several other fluency assessments mentioned in this literature review. Online articles as well as books were checked out from Rod Library in order to aid in the research process for this review. Online searches were also conducted using http://www.google.com/advanced_search, and www.doaj.org using similar search terms. This literature review utilizes sources dated within the past ten years. Sources were chosen based on their relation to the topics of literacy assessment, DIBELS, as well as the other fluency assessments mentioned in this literacy review.

In order to analyze sources, the abstract of each journal article was read prior to reading the remainder of the article. If the abstract did not relate to the topic at hand, reading was concluded. If the abstract did relate, the article was analyzed in relation to the topic at hand. It was deemed important to include studies from a variety of locations with students of varying

socio-economic, cultural, and educational backgrounds in this literature review in order to assure that no generalizations were being made. Results and the discussion thereof from each study were carefully analyzed in regards to their relation to this literature review. Careful attention was paid to the author of each article, to assure that any bias was noted. For example, studies performed and articles written by the creators of the DIBELS assessment or any of the other assessments included in this review had a different tone than those written by other authors. Several websites were also included in this review, specifically those that are used to both explain and advertise different types of assessments. Only factual information was taken from these sites. Opinions or interpretations from the companies that created the assessments are not included in this literature review. The majority of information for this literature review was taken from peer-reviewed journals.

Literature was included in this literature review if the studies appeared to have strong internal and external validity as well as strong reliability. Many of the studies included in this review included one-on-one assessments given to children. Therefore, high inter-rater reliability also needed to be demonstrated, specifically because of the nature of the studies. Careful attention was also paid to the journal which each article was taken from. Articles printed in well-known and respected journals were used for this literature review.

Literature Review

Through an analysis of literature, the following research questions will be answered: Is the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment an appropriate measure of students' knowledge and success in reading? Are there other assessments available that would be more accurate and helpful in informing one's reading instruction? Would a combination of assessments be more beneficial?

Description of Dynamic Indicators of Basic Literacy Skills (DIBELS) Assessment

The DIBELS assessment is used to assess students in Kindergarten through sixth grade. This assessment focuses on phonological awareness, alphabetic principle, and fluency. The authors of the assessment are still in the experimental process with assessment of vocabulary and comprehension (University of Oregon Center on Teaching and Learning, n.d.b). Initially this assessment was developed as a criterion-based measure, but national norms have also been developed (University of Oregon Center on Teaching and Learning, n.d. b). Kindergarten students are assessed on Initial Sound Fluency (ISF), Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF). Assessment of several of these areas continues through the beginning of second grade. There is an optional Word Use Fluency (WUF) assessment that can be administered to students from the beginning of Kindergarten through the end of third grade. When students enter first grade through their completion of sixth grade they take the Oral Reading Fluency (ORF) assessment as well as the optional Retell Fluency (RTF) assessment (University of Oregon Center on Teaching and Learning, n.d. a).

Definitions of each assessment as taken from the University of Oregon Center on Teaching and Learning (n.d. a) follow. The ISF assessment measures students' abilities to recognize and verbalize the initial sound of a word that has been presented orally along with a picture cue. In LNF, students are given one minute to name as many letters as possible from a page in front of them. When taking the PSF assessment, students are orally presented with a word and then asked to identify each phoneme in the word. For example, if given the word "cat", students should respond with /c/ /a/ /t/. NWF measures students' ability to blend sounds into non-sense or make-believe words. These words are consonant-vowel-consonant (cvc)

words. If given the non-sense word “wuf”, students should respond with either the sounds /w/ /u/ /f/ or reading the entire non-sense word. Students receive the same amount of points, regardless of whether they correctly read the word as a whole or isolate it into three separate sounds.

The ORF assessment consists of three one-minute readings of different passages on which students are given one point for each word read correctly in connected text. The administrator of the assessment then records the middle of the three scores as the student’s final score on this assessment. RTF is intended to provide a comprehension check for the ORF assessment. The creators of this assessment included RTF in order to provide a measure that relates to the comprehension component of the National Reading Panel’s report as well as to prevent students and teachers from thinking that the ORF assessment is based solely on speed (University of Oregon Center on Teaching and Learning, n.d. a). The administrator is to count how many words the child uses when retelling what he or she just read. In WUF, students are orally presented with one word at a time and are asked to use the word in a sentence. Students are given one minute to use as many words in sentences as possible.

DIBELS can be used for a variety of purposes, including identifying students who are in need of extra assistance, progress monitoring, and evaluating the effectiveness of interventions (Bell & McCallum, 2008, p. 148). Teachers give this assessment to all students in the class three times a year (fall, winter, and spring) and progress monitor students who are at-risk once or twice a week. When progress monitoring, teachers only assess the student in the area they are struggling in.

As with any assessment or curriculum, if teachers are to use DIBELS correctly, as it is intended, teachers must understand how to assess students, how to interpret student scores, and

what to do with the information once it has been interpreted (Hoffman, et al., 2009). If teachers do not have a firm understanding of the purpose of the test, even with the best of intentions, they could be doing more harm than good. Teacher in-service on all aspects of this assessment is critical if it is to be given and used correctly.

Positive Aspects of DIBELS

Hoffman, et al. (2009) conducted a study in which they sent out surveys and performed interviews in regards to the use of DIBELS to members of the International Reading Association. Those who responded to the survey listed positive aspects as the opportunity to identify at-risk learners through the assessment, the fact that it informed instruction, that it helped teachers progress monitor their at-risk students, and the relative quickness and ease of the assessment (p. 8), which allows teachers to focus more time on instruction. Many of these positive aspects are what draw so many districts to use the DIBELS assessment.

Pool and Johnson (n.d.) also note the quickness of administration of DIBELS. They also add the low cost associated with the program as well as the fact that each assessment can be repeated often in order to monitor student progress. If students are comfortable with and have knowledge of what a test is like, they may perform better therefore giving educators an accurate demonstration of their knowledge. By progress monitoring students once or twice weekly, educators are then able to make instructional plans based on a particular student's needs. They may also use this information to form small, flexible groups of children to work on skills. It would be important for the teacher to focus on broad skills and strategies though and to not teach to the specific test students are not performing well on.

Glover and Albers (2007) write that "early screening is a critical aspect in the provision of targeted prevention and intervention services" (p. 118). DIBELS can be given to

Kindergarten students, therefore giving teachers and other school personnel necessary data to begin interventions with students who are struggling as well as to inform instruction for the rest of the class. The negative aspect is that often young students do not perform to the best of their ability on the fall assessment because of other reasons (such as they are shy or not comfortable with the person administering the assessment). This issue can be solved by progress monitoring these students as well as by including other classroom assessments in the decision-making process of what type of instruction each student needs.

Another positive aspect of DIBELS is the frequent progress monitoring of students who are considered at-risk. If a student is continually showing little or no progress, teachers can use this information to inform and therefore change the type of instruction that student is receiving. While this type of intensive one-on-one instruction may seem difficult for a general education teacher, it is possible. Special education teachers also often use progress monitoring to assess student progress on Individualized Education Plans. The large amount of data generated is very helpful to both students and teachers.

DIBELS and other similar assessments have been used for many years for many reasons. Besides using these assessments to identify students who may be at risk in regards to literacy skills, they have also been used to help place students in special education and remedial education programs, for improving instruction, for monitoring student progress, as well as for predicting student performance on government mandated assessments (Valencia, et al., 2010, p. 271). DIBELS has many important uses for teachers, students, administrators, parents, and government officials.

A study done by Reidel (2007) of urban first-grade students taking the DIBELS assessment in Memphis found that students' ORF score in first grade correlated with their

reading comprehension eighty percent of the time at the end of first grade and seventy-one percent of the time in second grade. The other DIBELS sub-tests were not as accurate when predicting students' ability to comprehend text. This brought Reidel (2007) to the conclusion that students only need to be given the ORF assessment once they reach the middle of first grade, and teachers will still be able to use this information to determine which students need interventions. The results of this study could be seen as a positive aspect of DIBELS in that the amount of assessments would be greatly reduced. Replications of this study in many different areas with different students would be necessary in order for such a change to be made.

Rouse and Fantuzzo (2006) conducted a study that focused on 330 kindergarteners who attend an urban public school to see if DIBELS was a valid indicator of early literacy for these children. The majority of the students are minority children from low-income families (p. 344). The authors found a positive relationship between each early literacy skill and each of the DIBELS subtests (Rouse & Fantuzzo, 2006, p. 347). They found that the strongest relationship between each DIBELS subtest was with the DRA instructional reading level (Rouse & Fantuzzo, 2006, p. 347). Using these two assessments in conjunction with one another could help districts to obtain useful literacy information about each student.

Negative Aspects of DIBELS

Whether it is the desire for students to perform well or the desire to have adequate yearly progress to report, many districts as well as individual teachers have begun to teach to the test. Instead of using DIBELS as a measure of what students are learning in the classroom, students are being taught skills that will help them to perform well on the test, with a big focus on fluency as reading for speed instead of comprehension (Samuels, 2007). Johnson and Pool (n.d.) argue that some teachers and schools think that by focusing on one specific skill measured by the test

(for example, oral reading fluency), students will improve in their reading ability. Studies have shown that focusing on the single skill may help to improve that skill, but not a student's overall reading ability. Pearson (2006) writes, DIBELS "digs too deeply into the infrastructure of reading skill and process and comes up with a lot of bits and pieces but not the orchestrated whole of reading as a skilled human process...assessments should reflect, not lead curriculum and instruction" (Goodman, et al., 2006, p. xi). Therefore, when teachers are focusing on a specific skill or process, they are not helping their students in the long run. Instead of focusing on isolated skills, the use of a balanced literacy approach will help students attain the skills necessary to perform well on a test, without directly teaching to the test.

Goodman (2006) writes that DIBELS authors assume formal reading instruction begins in Kindergarten, when in fact full-day Kindergarten is only mandated in two states. The frequent debate among Kindergarten teachers as well as parents and other members of the community is whether or not some educational activities, including intense reading instruction, are developmentally appropriate.

Should five year olds be repeatedly tested with timed tests? Should those who can't perform on those one-minute tests be drilled on naming letters and sounding out words while their classmates play? And should children come to see themselves as failures before they even start first grade? (Goodman, et al., 2006, p. 11)

Goodman asks questions that are on the minds of many. Instilling in students the joy of reading and listening to literature seems to be less of a focus in many districts, with the new focus becoming teaching to the test. Students' self-esteem and willingness to be risk-takers when learning to read may be greatly affected by this. It is important that some sort of balance is found for the benefit of our students.

Pool and Johnson (n.d.) mention that another negative aspect of DIBELS is “poor classification accuracy” (table). In other words, students are often classified as intensive, strategic, or on-level, when in fact they may fit into another category. This negative aspect is especially important because many teachers rely heavily on DIBELS data to form small groups and focus their small group instruction based on students’ specific needs. If students are grouped incorrectly, they will also be receiving instruction that is either above or below their instructional level. Related to this is that many students may be incorrectly identified as being at risk in regards to literacy (Pool& Johnson, n.d.) when in fact they are not. Students who are identified as at-risk receive special services, such as Title One. Teachers of these students take small groups in order to assure that each student is receiving the intensive instruction they need (based on test scores). If scores are inaccurate, the wrong students may be receiving these important services.

An additional element of concern regarding the DIBELS assessment concerns the definition of fluency. When searching for that definition, one is able to find many variations, and there is not one definition that is universally agreed-upon (Deeney, 2010). Kuhn et al. (2010) define fluency as a combination of accuracy, automaticity, and prosody (defined as reading with expression) (p. 2). Deeney (2010) also includes endurance, or the ability to continue reading fluently as described above, over an extended period of time (p. 442). Often when students are tested in DIBELS, there is little or no focus on prosody, and if students do use prosody, they are punished with a lower score. Often fluency is equated with speed and “although speed in reading may be an indicator of automaticity in word recognition, speed is not reading fluency and should not be used as an explicit goal for instruction” (Rasinski, Homan, & Biggs, 2009, p. 198). Bell and McCallum (2008) write that fluency assessments often neglect to

measure prosody and inflection, which are also key components in fluency and ultimately comprehension (p. 225). Valencia, et al. (2010) state that assessments of oral reading fluency generally focus solely on words correct per minute despite the fact that fluency has many more important aspects (p. 271).

Rasinski (2004b) identifies three key aspects of fluency that need to be addressed in instruction. The first, accuracy in word decoding, includes a student's use of phonics and other decoding strategies. The goal in automatic prosody, the second key aspect, is that a student spends as little time decoding as possible in order to focus on comprehension of the text. Finally, the third key aspect is that of prosodic meaning, which means focusing on the appropriate use of phrasing, vocal expression, and attention to punctuation (p. 46). Without attention to all three of these aspects, students are not reading fluently. In relation to DIBELS, if a child is focusing on these details, he or she may be reading slower and therefore performing at a slower rate than his or her peers. Teachers, parents, and students need to be aware of the many dimensions of fluency and how fluency affects students' comprehension of the material, which is the ultimate goal of reading.

Students who are labeled as needing intensive intervention for the Oral Reading Fluency assessment of DIBELS are progress monitored throughout the school year. Another negative aspect of DIBELS is that there is noted inconsistency of text difficulty from one progress monitoring text to the next (Ardoyn & Christ, 2009). This inconsistency therefore makes it difficult to assess student growth and make necessary changes to instruction based on student need (Ardoyn & Christ, 2009). In order for progress monitoring to be effective, all passages for students at a particular grade level need to be of the same reading difficulty. One strategy many teachers use to help work around this problem is to have each child read three passages each time

he or she is progress monitored and then take the middle score. While this method also has its flaws, it may help to make progress monitoring slightly more accurate.

Other difficulties associated with the progress monitoring of students are management related. For example, deciding who (general education teacher, special education teacher, or other adult) will give the progress monitoring assessments to students is one such thing. Will this same person or someone else be in charge of managing the large amount of data associated with progress monitoring? It is also essential that once this data is obtained, that it is used to inform instruction. Finally, another difficulty is assuring that a child's progress monitoring time is not taking away from their (or others') instructional time (Bell & McCallum, 2008, p. 152). These difficulties are common with the majority of assessments.

As classrooms become more diverse, many students may struggle with some standardized assessments, and DIBELS may be one of them. DIBELS typically does not factor in the social and cultural aspects in which the assessment occurs. Therefore, students who have different values and experiences and are taking the test are at a disadvantage (Li & Zhang, 2008). These students may not be reading to the best of their ability and their data may be inaccurate. This is a common disadvantage of many standardized assessments and one that needs to be addressed as our schools become increasingly diverse.

A study conducted by Seay (2006) of first through third grade students in Alabama was conducted in order to find if students' first grade scores on the ORF assessment of DIBELS were predictive of third grade scores on the Stanford Achievement Test (SAT 10). Some of the results found are in table one (Goodman, 2006, p. 61). These results led Seay to conclude that students' ORF scores in first and third grade were not good predictors of their scores on the SAT 10 test in third grade. The same study found that of the students who were initially identified as at risk in

reading, over twenty-three percent in the first sample and thirty-six percent of students in the second sample, were still identified at risk at the end of third grade (Goodman, 2006, p. 62). The early interventions provided based on DIBELS data were not helping students to make necessary gains to become learners and readers of on-level text.

Table One

Assessments Predictive Value

Assessment	Prediction of variance on 3 rd grade SAT 10 Scores
Grade one DIBELS ORF	36%
Grade three DIBELS ORF	less than 50 %

In response to the many negative aspects of DIBELS, the Dynamic Measurement Group (2009) has recently released DIBELS Next, which is regarded as the new and improved version of DIBELS. In this version of the assessment, a verbal First Sound Fluency assessment replaces the Initial Sound Fluency Assessment which, while the administrators also gave verbal prompts, included many confusing illustrations. The Dynamic Measurement Group (2009) also states that DIBELS Next includes new forms and passages and integrates retell into the Oral Reading Fluency assessment, as well as several other improvements. The company has also released new norms due to the changes in several parts of this assessment. In regards to administration tools for DIBELS Next, both the administrator directions and student materials are in a flip-book and in color. This makes the assessment easier to administer as well as more student friendly. The scoring books are now printed on legal-sized paper (Dynamic Measurement Group, 2009), which gives administrators the ability to take notes on pages during or after assessing a student.

Finally, Dynamic Measurement Group (2009) is also providing training workshops for those who are new to DIBELS entirely or transition workshops for those who are already familiar with the DIBELS assessment. This will be helpful to districts as they make the change and will give administrators and teachers the chance to get their questions answered. Continual staff development is necessary in order to help assure that the assessment is being administered correctly. While many of these changes appear to be positive, little research has been published on the effectiveness of this new assessment because of how recently it has been developed and available for use by schools.

Other Fluency Assessments

While DIBELS may be the most commonly used fluency assessment (Kuhn, Schwanenflugel, & Meisinger, 2010, p. 20), there are multiple other options available to districts, schools, and teachers. When searching for a suitable fluency assessment or combination of assessments, it is important to have specific criteria in mind. Glover and Albers (2007) state that while there are currently no specific criteria available, assessments should match their intended use (in this case, fluency); they should match the current needs of the district, school, and classroom; they should have concurrent, construct, and content validity; and the administration of the assessment should be feasible in the specific teaching and learning environment (pp. 119-120). Teachers and administration also need to take into account which other literacy skills should be assessed and what assessments will best fill that need. It is important that districts focus on student instructional needs when choosing assessments instead of solely choosing assessments based on governmental requirements and funding.

Rathvon (2004) writes of the importance of a fluency assessment being user-friendly. While it is important that an assessment has a high-degree of reliability (pp. 40-47), teachers and

administrators also need to take into account “the amount of time required for administration, scoring, and interpretation; the types of scores yielded; the availability of software scoring options; and the cost of the tests and supplementary materials” (p. 60). Any time spent assessing is time that the teacher is not able to use for instruction, therefore the time required as well as the ease of scoring, understanding and administering the test are of vital importance. Once a program has been chosen, the appropriate amount of staff development must be provided in order for teachers and administrators to assure they are administering the test correctly and using all of the available data correctly to inform instruction. If data also goes home to parents, this needs to be in a parent-friendly format this is easily understandable without the teacher’s explanation. The following fluency assessments are by no means an exhaustive compilation but are a sampling of several different assessments that are currently available and used in schools.

Gray oral reading test-fourth edition. The Gray Oral Reading Test-Fourth Edition (GORT-4) can be administered to students who are seven years old through eighteen years and eleven months old (Rathvon, 2004, p. 464). The GORT-4 assesses students’ reading rate, accuracy, fluency, comprehension, and reading ability. Each child reads a text out loud and then answers five comprehension questions in relation to the text, which are read aloud by the administrator of the assessment (Rathvon, 2004, p. 265). A student’s reading ability is then obtained by combining scores of rate, accuracy, and comprehension (Hudson, Lane, & Pullen, 2005, p. 706). The fact that this test focuses on a variety of reading skills including comprehension and not solely on reading fluency, makes it a useful tool for informing both whole class and individualized instruction. Teachers would be able to use assessment results to choose specific skills to focus on with students.

Observations survey of early literacy achievement. The Observations Survey of Early Literacy Achievement (OSELA) can be administered to students in Kindergarten through third grade (Bell & McCallum, 2008, p. 128). OSELA is comprised of six, untimed, individually given assessments and is an assessment that was originally used with the Reading Recovery program. The six assessments include a running record of text reading, letter identification, concepts about print, word reading, writing vocabulary, and hearing and recording sounds in words (Li & Zhang, 2008). An important aspect of this assessment is that in order for it to be administered correctly, the administrator needs to have a deep understanding of both the reading and writing process (Li & Zhang, 2008). Because this test is typically administered by teachers, one would expect them to have a deep understanding of both, but this may not always be the case. One negative aspect is that those who advocate for OSELA are strong believers that all assessments should be classroom-based with no outside assessments (Li & Zhang, 2008). In the current age of accountability, this is generally not an option and a combination of both classroom-based and external assessments is necessary. A positive aspect of this assessment is the combination of six different types of assessment that focus not only on fluency but on other literacy skills as well. Information from this assessment could be very helpful for a teacher in regards to informing instruction for a particular student with high literacy needs.

The group reading assessment and diagnostic evaluation. The Group Reading Assessment and Diagnostic Evaluation (GRADE) Test is available for students in Pre-Kindergarten through post-secondary education. The GRADE measures students' abilities in "prereading; reading readiness; phonological awareness; vocabulary; reading comprehension; [and] listening comprehension" (Pool & Johnson, n.d., table). This assessment is administered as a class and takes approximately one hundred fifteen minutes at the pre-kindergarten level (Pool

& Johnson, n.d., table). The GRADE provides teachers and administrators with different information on students in regards to literacy. One important piece to take into account for younger students would be their ability to take a paper-pencil test independently. If a student is unable or unsure how to do so, this may affect the validity of their test results.

Test of early reading ability-3. The Test of Early Reading Ability-3 (TERA-3) takes approximately fifteen to twenty minutes per child to administer. This test measures alphabetic knowledge, knowledge of print conventions, and meaning (Rathvon, 2004, p. 276). This assessment is one of few that provide a norm-referenced score for print conventions (Rathvon, 2004, p. 276). Knowledge of print conventions, including but not limited to the fact that we read from left to right, that words have spaces between them, and that sentences end with punctuation are key in a student's ability to read and comprehend print. This assessment gives educators, administrators, and parents another piece of important information when diagnosing any struggles a child may be having with his or her literacy skills. TERA-3 is available for students three years and six months of age through eight years and six months of age.

Developmental reading assessment, 2nd edition. The Developmental Reading Assessment, second edition (DRA2+) is a literacy assessment that measures word recognition, phonics/phonemic awareness, fluency, vocabulary, and comprehension (Bell & McCallum, 2008, p. 127). In this test, which is administered individually, students read continually more difficult texts until they are no longer reading accurately or comprehending the text to specified standards. Students are then assigned an instructional reading level based on their scores (Rouse & Fantuzzo, 2006, p. 345). Pearson Education, Incorporated (2011) states that several reliability tests were completed on the DRA2+ including those for construct, content, and criterion-related reliability. There is also a version of this assessment available in Spanish, which may be useful

to some schools (Pearson Education, Incorporated, 2011). More research may need to be conducted as to the reliability and validity of the Spanish version of this assessment.

Informal reading inventories and curriculum based measurement. Rasinski (2004a) states that teachers must be able to effectively measure and monitor their students' fluency achievement and that effective fluency assessments must be reliable and valid as well as be efficient to administer, score, and interpret (pp. 4-5). Rasinski includes Informal Reading Inventories (IRIs) and Curriculum Based Measurement (CBM) as assessments that meet these goals. IRIs concentrate on word decoding and accuracy, which is determined by the number of words read correctly. While these assessments have been proven to be a valid measure of reading proficiency, it can take one to two hours per student to complete (Rasinski, 2004a), which makes it unrealistic for a teacher to use with each student in a general education classroom. However, these types of assessments prove to be very beneficial with special education students as well as other students who are reading below-level in regards to identifying student proficiency and to help tailor instruction to the specific students.

One example of an IRI is the Basic Reading Inventory (BRI). This assessment includes word lists and passages from pre-primer to grade twelve. It also includes teacher copies for each and gives the teacher the opportunity for miscue analysis (Johns, 2005). Weaver (2009) defines a miscue as "whatever the reader says aloud, or thinks silently, instead of what is written linearly on the page. It is an observed response that differs from the expected response cued by the text" (p. xiii). Miscue analysis gives a teacher the opportunity to analyze what types of mistakes the student is making and helps them inform and tailor instruction based on needs of individual students. Through the use of miscue analysis this test gives teachers different information than

they are able to obtain from DIBELS and may be especially useful with students whom a teacher has a concern about their reading level/ability.

CBMs require students to read grade-level text orally, and each assessment takes only one minute. DIBELS is one example of a CBM (Ardoyn et al., 2010, p. 278). Ardoyn et al. (2010) write that “extensive evidence supports the reliability and validity of Curriculum Based Measurements of Reading for estimating students’ levels of reading achievement” (p. 278). During the administration of a CBM, the administrator is marking words not read or read incorrectly. Because of its brevity, this assessment can be given multiple times to a student in one sitting. Generally, administrators of CBM are to encourage the students to read the text at a normal rate (Rasinski, 2004a), which would most likely increase the chance that students would read with prosody. If a child is reading with prosody, this would also most likely increase their comprehension of the text. Directions for the oral reading fluency part of the DIBELS assessment do not specify a rate for students to read. Often students rush through and read as quickly as possible in order to obtain a higher score.

Alternatives to Fluency Assessments

An alternative to using fluency assessments is using fluency rubrics. Fluency rubrics give both teachers and students the opportunity to track progress. Not only are students and teachers able to see where they are on the scale, but rubrics also help students to develop a stronger metacognitive awareness of their oral reading abilities (Rasinski, 2004a). As illustrated in table 2, the NAEP-Oral Reading Fluency Scale (NAEP, 2005) helps to track student fluency progress in four levels. Students and teachers may use the rubrics to help guide their learning and set goals in regards to their fluency progress. Using a tool like the NAEP-Oral Reading

Fluency Scale gives students the opportunity to take ownership of their own learning, while also giving them the opportunity for teacher guidance if necessary.

Table 2

NAEP Oral Reading Fluency Scale, Grade 4: 2002

Fluent	Level 4	Reads primarily in larger, meaningful phrase groups. Although some regressions, repetitions, and deviations from text may be present, these do not appear to detract from the overall structure of the story. Preservation of the author's syntax is consistent. Some or most of the story is read with expressive interpretation.
	Level 3	Reads primarily in three- or four-word phrase groups. Some small groupings may be present. However, the majority of phrasing seems appropriate and preserves the syntax of the author. Little or no expressive interpretation is present.
Nonfluent	Level 2	Reads primarily in two-word phrases with some three- or four-word groupings. Some word-by-word reading may be present. Word groupings may seem awkward and unrelated to larger context of sentence or passage.
	Level 1	Reads primarily word-by-word. Occasional two-word or three-word phrases may occur—but these are infrequent and/or they do not preserve meaningful syntax.

Note. This table was obtained from the U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Oral Reading Study.

Another example of a fluency rubric can be found in the March 2004 edition of *Educational Leadership* (Rasinski, 2004). This rubric encourages teachers and students to focus on four aspects of fluency: expression and volume, phrasing, smoothness, and pace (Rasinski, 2004b, p. 49). By breaking fluency into these four areas, all involved are able to clearly see which area(s) of fluency need to be focused on and teachers are then able to inform their small and large group instruction based on this information. As with many aspects of education, giving students clear guidelines and expectations helps them to be successful and meet those expectations.

Conclusion and Recommendations

Reliance on one assessment of student progress in obtaining appropriate literacy skills may lead to misidentification of students' needs. Therefore, a fluency assessment should only be one aspect of many assessments including classroom data to identify student needs (Kuhn, et al., 2010; Li & Zhang, 2008). Several other assessments mentioned in this review also take into account student knowledge of vocabulary, reading comprehension (Pool & Johnson, n.d.), accuracy (Rathvon, 2004), concepts of print, and running records of text reading (Li & Zhang, 2008). Combining as many of these skills as possible (in as few assessments as possible) will give teachers more useful information that will inform their instruction. While combinations of assessments can be extremely helpful, it is imperative for teachers and administrators to make sure that each assessment is measuring different types of literacy knowledge. Using multiple assessment tools that measure the same skills would not be a valuable use of instructional time and resources.

Teacher Practices

Students are assessed in order to assure that they are making adequate progress and to inform instruction. One of the ultimate goals is to help students to become successful, lifelong readers. The more print a student is exposed to, the more opportunities they have to become a reader. Therefore it is important to foster a love of reading within each student. It is also important not to teach to the test. Focusing on fluency instruction, if done appropriately is very beneficial to students. Rasinski, Homan, and Biggs (2009) describe a Fluency Development Lesson (FDL) to be used daily for ten to fifteen minutes in which students and teachers work with a text, reading with expression in several different ways and discuss the meaning of the whole text as well as important vocabulary words. Students then take the text home to practice

and return to school to read it fluently to a teacher or other student (p. 199). This is something that could easily be integrated into a classroom at any level of elementary school. Including the home component will also give students an opportunity to share what they are learning at home. It will also encourage parents to be involved in their child's educational experience. Those children who do not have the opportunity to work with a parent at home may be given extra time to work with an adult at school in order to help bridge the gap.

Another way to increase reading fluency of students (and therefore help them to perform well on tests) is to give them time to read for enjoyment. In the classroom setting, this is often referred to as Sustained Silent Reading (SSR). Broemmel, Boruff, and Murphy-Racey (2007) point out the strong positive relationship between the amount of time a child spends reading and his or her reading achievement (p. 65). After the National Reading Panel released its report and stated that "despite positive correlational evidence, there is little scientifically-based research to support the assumption that there is a causal connection between reading volume and reading achievement" (Broemmel, Boruff, & Murphy-Racey, 2007, p. 65), many teachers began giving their students less time to do so in the classroom because of the pressure they felt for their students to perform well on tests (p. 66).

Garan and DeVoogd (2008) state that while the NRP findings do not support SSR in schools, many studies and reports following that created by the NRP "provide strong evidence that time spent reading is *class time* well spent" (p. 340). In other words, the amount of time a child spends reading does have a positive correlation with their reading fluency. The best way to become better at something is through repeated practice, and this is evident with reading as well as any other activity one seeks to improve on. Teaching to the test may not be as beneficial to students as simply giving them time (and monitoring to make sure it is being used properly) to

read for enjoyment. In fact, giving students time for SSR should lead to an increased score on the Oral Reading Fluency assessment of DIBELS as well as any other fluency assessment. It should also help students increase their love of reading as well as their comprehension of the books they are choosing to read.

A strong core literacy program is key in assuring that students are performing at or above grade-level and will therefore perform well on any standardized assessment. As stated previously, when teaching to the test, important skills and aspects of reading are often left out. Including aspects of the “big five” ideas of early literacy, which include phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2006), is one way to help assure that all students’ literacy needs are being met. As mentioned above, including Silent Sustained Reading as part of this program is also very beneficial. A program called The Daily Five can also give students the opportunity to daily practice the key skills of reading to self, reading to someone, listening to reading, working on writing, and word work (Boushey & Moser, 2006, pp. 11-12). A key aspect of this program is modeling and teaching expectations early and throughout the year so students are able to work independently. An increase in student independence then gives the teacher time to meet with small guided-reading groups as well as conference with individual students in relation to their specific literacy needs.

Teachers play a crucial role in the learning process and need to be given the appropriate staff development to assure that they are using best practices in teaching reading as well as that they are administering and using data from DIBELS appropriately. Time for teachers to observe and discuss with others who are using best practice methods is important for teachers to continue their learning process and provide their students with the best education possible. Teachers also need time, which could be provided through professional learning communities, to analyze

mandated assessments such as DIBELS as well as other classroom data to assure that each student is getting the appropriate type of instruction to meet his or her needs. For example, teachers could use this data to help students set their goals for the Daily Five, and its partner program the Daily CAFE (Comprehension, Accuracy, Fluency, and Expand vocabulary). Teachers need to be trusted to make informed choices as to the types of instructional strategies that will be most beneficial to their students.

Use of Multiple Assessments

Using a combination of assessments that assess different skills and strategies associated with literacy would give teachers, administrators, parents, and community members more and different types of information about student progress. One negative aspect about using multiple assessments is that of time. There are multiple things that teachers are expected to fit into each day, and the addition of multiple literacy assessments may take away from important instructional time. If multiple assessments are given, a careful evaluation of each and the skills they assess would be imperative in order to assure that the information obtained from each is useful and not repetitive. Another negative aspect of using multiple assessments may be that if students are constantly being assessed, they may take the assessments less seriously and may not show their full potential. This would then make the assessment data inaccurate and therefore not useful.

The DIBELS assessment is given three times a year. Students who are at-risk are then progress monitored once or twice each week. Using classroom assessments that go with a district's specific reading curriculum may give teachers the opportunity to assess students' comprehension and progress multiple times throughout the year, which will help to inform instruction in a much timelier manner. Many reading curriculums include weekly

comprehension and fluency assessments that teachers use to inform their instruction and form flexible small groups. DIBELS could then be used as a formative assessment to make sure that students are still progressing as expected, based on results from classroom assessments. “The mandated tests tend to give a snapshot of a child’s ability whereas use of a variety of assessments gives teachers a more comprehensive portal” (Rubin, 2011, p. 606).

Another option would be to use DIBELS in combination with an informal reading inventory, such as the BRI. Students who meet benchmarks on DIBELS may not need to be assessed using other measures. Students who are labeled as intensive through the DIBELS assessment could then be given the BRI, which could then give a more detailed account of student needs, through the use of miscue analysis (Johns, 2005). As previously stated, a negative aspect of DIBELS is that test scores may inaccurately label students as intensive, benchmark, or on-level. Therefore, if a teacher is concerned about a particular student’s test score, he or she could also be tested using the BRI. The teacher could also take classroom assessments into account if there is a discrepancy between a student’s results on DIBELS and the BRI.

Often students are assessed on DIBELS and achieve benchmark scores, but this apparent mastery of literacy skills is not carried through into daily literacy activities in the classroom. By giving OSELA to students who fall into this category, teachers would be able to gain more information from the running record of text reading, word reading, writing vocabulary, and concepts of print assessments that are given through OSELA (Li & Zhang, 2008), which could then be used to inform instruction. Once again, if there is a conflict between DIBELS and OSELA, classroom assessments could be used as more data.

Finally, the use of fluency rubrics throughout the year in combination with the DIBELS assessment would be helpful to students and teachers. The use of a fluency rubric would give

students the opportunity for goal setting throughout the year. A fluency rubric would give students a clear understanding of teacher expectations in regards to fluency. Consistent use of the same fluency rubric throughout a district would be imperative so that student data from DIBELS and other fluency assessments would be comparable.

While highly recommended by the National Reading Panel and used by many schools throughout the United States, reliance on the DIBELS assessment in isolation may not provide enough information in regards to student understanding and growth in the area of literacy. Research shows that there are multiple other assessments that measure other aspects of literacy that may be equally as valuable as DIBELS and may compliment this assessment in measuring students' understanding. Focusing solely on the assessment and teaching to the test are not beneficial to students. Combining these assessments with a balanced-literacy program that focuses on the "big five" areas of early literacy will help to assure that students are receiving appropriate literacy instruction and are making the appropriate gains.

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