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BOOKS THAT CHILDREN CAN READ: DECODABLE BOOKS AND BOOK LEVELING

FINAL REPORT

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DISCLAIMER

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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GLOSSARY

Decodable text: Mesmer (2001) defines decodable text by focusing on two salient features: (1) the proportion of words in which letters and sounds have phonetically regular relationships, and (2) the degree of relationship between the letter-sound relationships learned and those present within the text. Decodable text mainly includes words that children have learned to sound out or decode independently.

Leveled texts: Leveled texts are typically books or stories with increasing levels of difficulty (Cunningham, et. al, 2005). They are designed to provide students with reading materials that range from very simple to gradually more complex and challenging.

Readability: Edgar Dale and Jeanne Chall's (1949) definition is one of the most comprehensive: "The sum total (including all the interactions) of all those elements within a given piece of printed material that affect the success a group of readers have with it. The success is the extent to which they understand it, read it at an optimal speed, and find it interesting" (Dubay, 2004, p.3). Readability is most familiar in the context of formulas that provide an objective numerical score representing text difficulty; the score corresponds to a grade level calibrated by the months in an academic year or a standard score.

Text: Text refers to a wide range of written materials—from a body of work to a book, a passage, sentence, or even individual words. It is derived from the Middle English word *texte*, meaning written account (Mesmer & Cumming, 2009; Houghton Mifflin, 2006). For the purpose of this paper, the word text refers to continuous text or complete passages or complete context. This definition excludes a word, a sentence, or any other part of a complete passage (Mesmer & Cumming, 2009). That means that a 10-page storybook can be considered a text, but 10 pages from a larger work cannot.

Text coherence: Coherence refers to how propositions are connected in a reader's mental representation, a cognitive construct (Benjamin, 2012).

Text complexity: Complexity is defined in the Merriam-Webster Dictionary as consisting of many different and connected parts. Text complexity is more complicated than text difficulty. It encompasses a number of factors that determine the challenge of a particular text to an individual.

Text difficulty: Difficulty is defined as something hard to accomplish or understand. Text difficulty refers to the accessibility of text to the reader (Fulcher, 1997) and is very important for teachers to consider when selecting texts for children to read. Appropriate text difficulty is often defined as text that can be read with satisfactory speed, accuracy, and comprehension (Morris, 2005).

I. PURPOSE AND METHODOLOGY

In many countries, children often have little or no exposure to print prior to entering school. They are eager to learn, but they may have limited vocabulary and the language of instruction frequently is not their mother tongue. For these children, learning to read is an enormous challenge. They will learn to read only if the instruction and materials are designed for their level of skills upon entry. Materials that support and engage children during classroom teaching play a key role in ensuring that they learn to read. Like quality instruction, appropriate materials are fundamental to effective student learning. They also provide a superior learning experience for young children.

However, in many countries, the books available in the primary grades are far too difficult for young children to read. Books are at a premium, and well-meaning educators often focus on getting ones labeled “children’s” without considering their content—as though the presence of books themselves will ignite reading in a classroom. But the reality is that these books are not used because the children cannot read them. When a book is too difficult, even when it is attractive and appealing, the words remain indecipherable and the books quickly become no more than classroom ornaments. Reading the words and understanding them is the ultimate satisfaction. The content of children’s books—the words, the stories, the simplicity or complexity of the text—is a powerful force in the process of building a culture of reading. Children need books that they can read and share with parents, family, and friends.

Creating and identifying books that children can read is the first challenge. These tasks require an understanding of the research on phonemic awareness, the alphabetic principle, and phonics in early reading acquisition, as well as on text difficulty; the rationale for different ways to determine whether particular texts are appropriate for beginning readers; and the ways that different written languages affect and constrain decisions in creating the content for young children.

In addition, most poor countries do not have books that are at an appropriate level for children's reading ability. Many texts are arbitrarily assigned to classes based upon grade and standard levels that are appropriate for countries with very different contexts. Thus, the task often will not be determining the level of existing texts, but creating new or significantly modified texts using guidelines that address word meanings and spellings. To accomplish this requires answering many questions. For example, which words are the easiest to read and also familiar to children? What constitutes progressively more difficult text levels for children as they develop reading skills?

A. PURPOSE

This paper examines ways to create texts in order to provide a continuum of reading levels for the primary grades. Using these methods, texts are calibrated to start at an easy level and gradually become more difficult so that children can access books they can read from the earliest weeks of first grade onward.

Because so few books are currently available at appropriate levels in most local contexts, this paper reviews methods for assessing texts that are acquired “off the shelf” or from sources outside of the school systems. Recommended best practices for developing decodable and leveled texts are also presented. The objective of this examination is to develop clear guidelines for creating leveled and decodable books that will apply in most languages and countries.

Although this paper does not focus on issues related to print and publishing, it does address several characteristics of “readability” from the perspective of text appearance. The first section summarizes historical research conducted in the United States on decodable books, the rationale for including decodable books in early reading instruction, and the role of decodable text in reading instruction in a variety of contexts and languages. A recommended framework for creating decodable texts is then discussed. Section two focuses on text difficulty across the primary grades, including an examination of the readability of existing texts, and key issues and challenges in calculating readability and text levels in

multiple languages and contexts. Recommended procedures for creating new, leveled texts are also provided. This includes a description of key reader characteristics and how these characteristics correspond to text features used to estimate the level of difficulty of the material. Such procedures help to ensure that texts are at appropriate levels for the children who are expected to read and learn from the materials. Equally important, they enable young readers to enjoy the experience of reading books that are matched to their ability.

The two sets of recommendations are intended to provide guidance to governments, non-governmental organizations (NGOs), and others in creating and categorizing books at an appropriate level of difficulty for children in the primary grades. The procedures can easily be integrated into an early reading instruction program and are as universally applicable as possible, but their validity will require field-testing and rigorous research in the countries in which these procedures are applied.

The steps for developing decodable and leveled books must be simple and straightforward so that teachers, teams of local educators, and collaborating partners in school districts can easily produce essential reading materials for the primary grades.

The goal is to create a simple framework for matching texts to readers in multiple languages in countries that may have few children's texts and no valid readability formulas for the local languages in which reading is taught. (See Table 1.)

Table 1: Definitions and Procedures for Determining Difficulty of Text

	Decodable Text	Leveled Texts	Readability formulas
Definitions	Simple text with words that children have the phonics skills to sound out	A subjective ranking of the difficulty of books at the early reading levels	An objective quantitative system to determine the difficulty level of text at all levels
How Text Difficulty is Determined	Decodable text involves creating stories from letter and word lists based on the scope and sequence of early phonics instruction. It primarily utilizes words that children have learned to sound out, with one or more focal word patterns that are linked to instructional lessons	Text leveling uses subjective criteria to identify the difficulty of texts. The criteria include the following "text support" factors: content, illustrations, length, curriculum, language structure, judgment, and format.	Most traditional readability formulas use (1) syntactic difficulty and (2) semantic difficulty to determine text difficulty.

Decodable text in multiple languages. Decodable text has a highly controlled vocabulary in which the majority of the words in the text are those that the reader has learned to decode; it does not rely on calculations beyond letter, syllable, and word frequencies. Decodable text is developed to align directly with a curriculum that incorporates a systematic scope and sequence of skill instruction.

In the earliest phases of reading acquisition, it is important for children to understand how the sounds in words "map" to letters, and how this knowledge can be instrumental in deciphering simple words. Text consisting mostly of words that can be easily decoded can be quite helpful, enabling children to get comfortable with the simplest tasks of deciphering when there is a predictable relation between a sound and a letter. In some countries, decodable text is appropriate just for grade 1, but in other countries, children in grades 2, 3, and 4 can benefit by learning to read with decodable texts.

Decodable text for young children needs to be directly tied to the instructional scope and sequence of skills so that they get practice as they learn beginning letter (symbol) sound patterns.

In the classroom, decodable texts can be used simultaneously with leveled texts; teachers can use the latter for reading aloud and other activities that promote vocabulary building and comprehension. As the reader develops automaticity in decoding, decodable text is gradually replaced by texts that are richer and more varied in vocabulary, syntax, and structure.

Purpose of decodable text. When considering books for beginning readers, it is important to understand what types of text will be most appropriate for students with different levels of skills. For example, when very young children are beginning to grasp the idea that the sounds of language can be represented by letters or letter combinations, the task of learning which abstract symbol represents which sound can be daunting. Memorizing the sounds and names of letters requires great effort and practice. Children who can apply the skills they are learning by reading very simple decodable text can see the purpose behind the effort. When a child learning to read is given a short story with words comprised of the letters and sounds the child has learned, that child can actually read the story. This accomplishment can be quite thrilling.

Simple decodable stories can act as a bridge to reading more complex and rich text. When decodable text is available in classrooms, children can quickly see the connection between learning letter names and sounds, segmenting words and blending them, and the pleasure of reading a story independently. Further, with success in reading simple decodable stories, children develop confidence and interest in reading very early on. The more they read, the better readers they become.

Decodable text is typically considered useful only during the very beginning stages of reading acquisition. As soon as children learn the most frequent letter sounds, consonant/vowel combinations, etc., they should transition from nonreader to independent reader, and be given stories with progressively more difficult words and more complex story lines, vocabulary, and sentence structure.

The procedures used to determine text difficulty for leveled texts differ from those for decodable text although the purpose is similar—to match text to readers' skills. Book leveling includes criteria that provide additional information that readability formulas cannot provide. Decodable texts, on the other hand, include two key features: use of regular letter-sound relationships from the easiest/ most frequent progressing to the more complex, and use of only those letter-sounds that the reader has been explicitly taught (Mesmer, 2008, p. 81).

Decodable text can be considered a scaffold that supports readers as they sound out words containing letters and sounds they have learned. The theory behind this approach emphasizes the importance of letter-sound knowledge in early reading acquisition. In Ehri's phases of reading recognition (1995), readers increasingly use knowledge of letter-sounds to recognize words.

The process of learning to read begins with a pre-alphabetic phase in which early readers use visual cues to associate letters with words, such as the golden arches on McDonald's signs. Students next progress to the partial alphabetic phase in which they begin to use initial sounds to recognize words. Readers then advance to an alphabetic phase in which they fully decode words and develop automatic word recognition, followed by fluency in recognizing and reading words until familiar words are recognized by sight.

Decodable texts focus a reader's attention on the letter-sound recognition aspect of reading. A clear scope and sequence of letter-sound instruction maximizes the benefits of using decodable text, linking individual decodable texts with the introduction of specific letter sounds. Decodable text allows students to build automaticity in their knowledge and use of phonics skills, encouraging the self-teaching hypothesis (Share, 1999) that states that as readers increase skills in decoding, they employ the learned

strategies on new and unfamiliar words and figure out how to apply these decoding strategies in new ways.

There is continued debate about whether decodable text is necessary in teaching young children in the early phases of reading acquisition. Decodable text has been found to add value to phonics instruction (Vadasy et al., 2005), although there is also some evidence that when a child receives individual tutoring plus strong phonics instruction, decodable text may not add value to the materials typically used for teaching (Jenkins et al., 2004). In many countries, individual tutoring and strong phonics instruction are not commonly found in schools, so a focus on decodable readers in the very early stages of reading instruction may be important to consider.

Decodable books are almost non-existent in developing countries. The concept of designing very simple books that are constrained by the exclusive use of taught letter name/sound combinations plus a few sight words is usually unfamiliar. The purpose and benefit of including decodable text in early instruction must be carefully explained to educators: children can develop a sense of success quickly, which will help keep them motivated to continue learning skills that will advance their reading proficiency. Recent research has provided evidence that, when young readers are exposed to decodable texts in English, they tend to become better at decoding and applying letter-sound knowledge more frequently in their reading (Vadasy et al., 2005; Jenkins, Peyton, Sanders, & Vadasy, 2004).

Decodable text also has a unique role in early reading acquisition in languages other than English. Regardless of whether the language is transparent (one sound per letter) or opaque (more than one sound per letter), decodable books are most often aligned with an instructional program's scope and sequence of letter names and sounds. Instruction in letter sounds and the words made from these sounds varies depending upon the language, but the approach is universal and has been found to be an effective component of a comprehensive reading program in schools in Bangladesh, Sri Lanka, and Nepal (Room to Read snapshot data, 2012-2013). In addition, a current USAID project in Malawi (see Annex C) is incorporating decodable text in its reading instruction programs.

B. TEXT DIFFICULTY AND READABILITY

There are many terms that describe whether a particular book can be read independently by a young child, including text difficulty, text complexity, decodable text, and leveled text.

Text difficulty, or the accessibility of the text to the reader, is not well understood in many countries, resulting in numerous children's books being written at a level that is far too challenging for students in the primary grades to read. Determining text difficulty involves a range of factors such as vocabulary and sentence complexity, and some researchers have reframed the issues of readability and text difficulty in a broader term called text complexity.

While text difficulty and complexity are similar concepts, there are critical distinctions between the two. Text complexity always refers to text elements that can be studied independently. In contrast, text difficulty is a feature that is always a dependent variable or criterion variable. Difficulty is based on the performance of readers on a particular text.¹ In this paper, difficulty is the primary variable considered, although the potential contributions of text complexity variables are also acknowledged.

One example of how text complexity informs the categorization of student texts is found in the Common Core Standards in the United States (NGA & CSSO, 2010). Quantitative (word length or frequency, text cohesion, sentence length) and qualitative measures (language structure, levels of

1. One theory proposes a model of text complexity that includes the following constructs in individual texts: words, syntax, and discourse structure. Elements of text treatments, such as content, sequence, pace, and repetition, are also included (Mesmer, Cunningham, & Hiebert, 2012). Mesmer et al., (2012) emphasize that individual text-level constructs do not provide sufficient information for understanding text complexity.

meaning of a text, language conventions and clarity, knowledge demands on the reader) are included with reader and task considerations (background knowledge and motivation) as part of the complexity calculations, resulting in a rather sophisticated process of determining levels of text appropriate for different readers.

Although using leveled books and decodable stories to match readers to texts is very effective, the simplest way to match a reader to a text is by using the five-finger rule. In this method, a child begins reading the second page of a book and holds a finger up for each word he is not sure of or does not know. If there are five or more words that the child does not know, the book is too difficult. However, this method does not indicate when a book might be too easy for a child, nor does it provide any information on what a child in a particular grade or at a particular standard should be able to read. In this technique, the child drives the analysis of text difficulty, and it is not considered a reliable method for leveling texts. Further, it is not helpful for creating texts designed to reflect a continuum of reading ability levels.

C. LEVELED BOOKS

Book leveling systems. Table 2 briefly explains some of the key topics considered in leveling systems (Fry, 2002, p. 287):

Table 2: Topics Commonly Assessed in Book Leveling Systems

Topics	Text Support Factors
Content	Is it appropriate, familiar, or of interest to an age group?
Illustrations	Do pictures tell the story or explain vocabulary?
Length	How many words are on a page? How many pages are in the book?
Curriculum	How are levels related to teaching methods or frameworks?
Language Structure	Does the language include repetitious words or phrases?
Background Knowledge	Are the readers' backgrounds and experiences appropriate for understanding the text?
Format	How will the type size, spacing, and page layout affect readers' understanding?

Leveled books can be placed on a continuum of difficulty from very easy to challenging text according to reading skill levels. Book leveling can be used for calibrating difficulty of text and for matching readers to an appropriate level of challenge in independent and supported reading.

In 1946, Emmett Betts addressed the challenge of selecting appropriate reading material for students (Fry, 2002). He explained to teachers how to categorize materials into independent, instructional, and "frustrational" reading levels: an independent level is text that a reader can easily read without any help, an instructional level requires some teacher support, and a frustrational level is simply too difficult for a reader to understand. Like the five-finger rule, Betts' three simple levels are defined by the reading level of an individual child, and the system's purpose is to ensure that children are provided with books that are at their reading skill level. At an instructional reading level, an individual can read 90 to 95 percent of the words in a text easily. An easy level is defined by text in which an individual can read more than 95 percent of the words, and a frustrational level is one in which a person can read less than 90 percent of the words.

Readability formulas are another method to calculate text difficulty. Most traditional readability formulas rely on two measures that have been validated in research studies:

- *Semantic difficulty or word meaning.* Often, this is determined by word length measured in syllables or number of letters. Sometimes, though, it is determined by word frequency or whether the word appears on a list of high-frequency words (Fry, 2002). This can be quite challenging when readability is being determined for texts in local languages in which there is no comprehensive research on the readability of texts.
- *Syntactic difficulty or complexity of the grammar.* Sentence length is the most common method of measurement. For languages with a structure that includes multisyllabic words even for beginning readers, sentence length may be misleading and will need to be supplemented by other measures.

Readability can be defined by the grade level or score obtained from a quantitative readability formula. Such formulas provide an objective numerical score representing text difficulty in which the score corresponds either to a grade level calibrated by months in an academic year or to a standard score. Although readability formulas can provide information on text difficulty based on overt linguistic features, they cannot incorporate more complex text features, such as text structure, or prior or cultural knowledge (Gupta, 2013).

Readability formulas are a common quantitative approach with a long history of research in English. There are currently more than 100 published readability formulas, or mathematical formulas used on existing text to calculate grade levels, a scaled score (used in Lexiles²) or other quantitative numbers to reflect text difficulty.

Methods to determine readability include the Fry Readability Graph, the New Dale-Chall Readability Formula, Lexiles, DRP Units, and Coh-Metrix. There are also machine language approaches that address more complex cognitive features, and a Chinese readability method that uses brush strokes per character to determine level of difficulty. The advantages of using readability formulas are their objectivity and reliability.

Leveling, on the other hand, is anchored in qualitative judgments rather than based upon quantitative calculations. It takes into account more factors, and usually provides a more fine-grained series of levels for the early grades. Commonly employed leveling approaches include those developed by Fountas and Pinnell (1999), Gunning (1998), and Weaver (2000). Both quantitative (readability) and qualitative (book leveling) methods of identifying and selecting books that children can read are highly effective when utilized appropriately.

Leveling systems represent a more modern and nuanced approach to determining text difficulty that includes expert judgment. The process of leveling text is most often used to create easy reading levels for the lower primary grades, rather than more advanced levels for the upper primary grades. However, Fountas and Pinnell (1999) provide leveling procedures for books up to grade 4 and text levels identified from kindergarten through adult ranges. Leveled texts and decodable texts are examples of how the construct of readability can be operationalized in two very different ways. The accessibility or readability of decodable books depends upon the explicit decoding skills taught to students. In contrast, the level of a book provides a general category of readability that is typically tied to a grade level or standard, but does not link specifically to skills taught. In fact, word frequency and decodability are not features used to create text levels. Books that are classified as appropriate for early readers are as likely to include

2. A Lexile is a measure used in The Lexile Framework for Reading to match readers of all ages with books, articles and other leveled reading resources.

few high-frequency words and complex word patterns as books designated for more advanced readers (Mesmer, 2008).

II. PURPOSES OF DIFFERENT TYPES OF TEXT FOR BEGINNING READERS

A. LEVELED READERS

The primary purpose of leveling texts is to match young students with material that is considered to be at their independent reading level so that they will not be frustrated. Texts are leveled using a qualitative expert judgment procedure with clearly defined standard guidelines. The leveling procedures do not pay attention to whether text is decodable or not. Leveling systems are not comparable to readability formula ranges of text difficulty since the procedures are different. Book levels are identified by numerical or alphabetic sequences from easy to more difficult, not by grade-level designations. The numerical or alphabetic sequences are holistic labels that provide an ordinal rather than interval scale of progression from easy to more difficult. There are typically between 15 and 26 difficulty labels in the most commonly used leveling systems (Mesmer, 2008). When leveled books are available, teachers can more accurately identify books that students with different skill levels will be able to read successfully. This has enormous implications for motivating individual learners and building a habit of reading.

One element of text difficulty considered in leveling is the quality of the language, and this includes sentence complexity, organization, style, and predictability. For example, in English, simple syntax includes sentences like “The dog ran. He sat on a mat.” More complex text includes sentences with dependent clauses and compound sentences: “The dog ran while carrying a bone in its mouth.” Figurative language expresses ideas indirectly and is more difficult for children; it includes phrases such as “once upon a time.” Literal language, which represents children’s day-to-day experiences, is easier for them to understand and read. For younger readers, texts need to include very simple language with brief simple sentences. As children progress in reading skills, text difficulty increases, and is characterized by more and longer sentences that are part of longer paragraphs and then, part of chapters or sections.

Another element of text difficulty involves content, an element that is not addressed in traditional readability formulas. For young children, content should reflect a child’s world and not concepts that are beyond their grasp such as physics or complex philosophical arguments. As complexity increases, content can become more abstract, requiring the reader to utilize more cognitive strategies to understand meaning.

Vocabulary also plays an important role. The words used in books for early readers are simple and easily understood. For example, the vocabulary word “funny” might be used for a young reader, but in more complex texts, “hilarious” or “amusing” might be a more accurate term.

Text leveling procedures consider formatting because early readers may be challenged by unusual or dense text layouts; readability formulas do not consider these elements. Examples of formatting considerations include the font used and the size of font. Andika is an example of a clear font, and a 22-point font is easier to read than a 12-point because it is larger. Also, the way the text is organized on a page and the amount of space between sentences can make a significant difference. If a page includes too many graphs, pictures, and text, it may be confusing to read. The format of a comic book, for example, may be puzzling. The language may be relatively simple, but the complexity of the text dramatically increases when conversation bubbles are in different locations on each page and the sequence varies from the traditional left-to-right and top-down format (Mesmer, 2008).

Research on leveled texts suggests that leveling systems can produce surprising results when certain features are studied across texts. For example, in a study by Cunningham, Spadorcia, Erickson, and Yoder (2005), the Reading Recovery leveling system was examined to determine how supportive texts were for early readers acquiring word recognition and decoding skills. Results indicated that there was only a moderate amount of support for word recognition in the books and almost no support for

decoding skills. Further, there was evidence that the books used in Reading Recovery do not gradually increase in word complexity as their levels increase, despite the fact that the definition of leveled readers creates this expectation. According to the authors, it may be more important to consider book characteristics rather than levels in assigning text. For example, does the book focus on particular decoding strategies, word recognition, or particular content? Categories may be more useful than levels, but to date, there is no research to support this hypothesis.

Benjamin (2012) conducted a comprehensive examination of current developments in readability over the past two decades aimed at informing and guiding research and providing recommendations for its use. There have been significant improvements in calculating readability, but there are still challenges to making some of the most effective methods accessible and widely available. One significant barrier to the wide use of readability calculations is that many countries have few available texts. Readability is calculated on existing text and is not intended to be used to create text.

Benjamin (2012) suggested that the standard test of a text difficulty method is how well its readability score matches with the actual reading comprehension scores of readers. While this approach seemed logical and useful at first, a serious problem arose. Publishers and writers used readability methods to create text rather than to calculate it on existing texts. This is a serious mistake, according to Benjamin, since the purpose of these formulas is to measure factors that reflect the readability of a text. When text is being created or adapted, it is more important to attend to structures of discourse—words, sentences, and paragraphs—than to simply try to shorten them (Benjamin, 2012, Bormuth, 1966). Still, readability formulas remain very popular; in recent years, there have been significant technological advances in calculating text difficulty. There are literally hundreds of methods published, and researchers and educators often need guidance on which methods are the most appropriate to use. Commonly used methods for calculating readability can be categorized into three genres: traditional methods, methods linked to cognitive science, and methods that use statistical language modeling tools.

Traditional tools focus on sentence length, percentage of familiar words, and word length (Benjamin, 2012). A readability formula is checked by correlating reading comprehension scores with the predicted readability of a text. One flaw in this technique is that even a nonsense passage text might be judged as readable according to a particular formula, as long as the words and sentences are brief enough. Still, these approaches are frequently used, and some of the newer ones have incorporated word frequency and other creative adaptations in their readability calculations.

B. THE NEW DALE-CHALL READABILITY FORMULA

In the 1970s, readability formulas became controversial, and some practitioners started focusing on text features that were based on cognitive science in order to increase the validity of readability. Chall revised the Dale-Chall formula to include methods for assessing some cognitive-structural elements of texts so that the match between readers and texts would be more accurate. Original features of the Dale-Chall formula, including sentence length and word familiarity, were retained; an updated and expanded version of the Dale-Chall list of familiar words was added; and the scale was validated using standardized reading tests, an expanded range of grade levels, and cloze³ scores from passages in the Bormuth (1971) research study on readability. The original Dale-Chall readability formula was designed for grade 4 and above, but the revised formula is recommended for grade 1 through college level. The New Dale-Chall also provides two measures of readability: a cloze score (the lower the score, the more difficult the text) and a grade level. Critics complain that the new formula still does not address the more complex structural elements of text (text cohesion, lexical overlap, etc.), but many consider it the most valid of all the traditional readability formulas (DuBay, 2004).

3. Cloze is a test in which a reader is asked to supply words that have been removed from a passage in order to measure the reader's ability to comprehend text (Oxford Dictionary).

C. THE LEXILE FRAMEWORK

Another popular method was developed in the late 1980s and is widely used in schools: the Lexile scale (Smith et al., 1989). This scale measures word frequency (the semantic variable) and sentence length (representing syntactic complexity). The method is similar to the New Dale-Chall in terms of the variables measured, but the measurement procedures are quite different. While the New Dale-Chall is fairly easy for individuals to use, the Lexile Framework cannot be computed easily by hand. Lexiles are computed using a mathematical algorithm of measures. The word frequency measure is the mean log word frequency from a five million-word corpus⁴ in the *Word Frequency Book* (Carroll, Davies, & Richman, 1971); that is, it is based on a word's frequency relative to other words in a databank. The sentence length measure is the log of the mean sentence length in the text.

When compared with other popular readability formulas, the Lexile Framework does not differ significantly in performance (Benjamin, 2012). Instead, its appeal seems to be in its application. The framework provides a Lexile score for an individual as well as a text, with a 75 percent probability that the individual will answer comprehension questions on the matched text accurately. Thus, teachers find the tool very helpful in determining appropriate texts for individual students. The Lexile Framework for Reading is commercially owned by Metametrics, and there is a large body of literature analyzed for Lexile scores. Individuals cannot perform analyses on texts not included in Metametrics' lists unless they work directly with the company because the analyses require a complete text, not text samples.

Other formulas that incorporate new technology in their methods include the Advantage-TASA Open Standard for Readability (School Renaissance, Inc., 2000) and the Read-X (Mitsakaki & Troutt, 2007, 2008) software program, which analyzes text readability on the web in real time.

All the methods described above are similar in that they address text difficulty in very traditional ways. All use text analysis features such as word frequency, and sentence, word, and paragraph lengths. But how well do the various methods perform? Performance data is available for only the New Dale-Chall and Lexile methods, although the ATOS is considered similar enough that it can be expected to perform similarly to the others (Benjamin, 2012). However, the ATOS method includes a book-length variable that was found to influence book difficulty.

There are also several major criticisms that remain about all of these methods. One issue is that a mixed up or jumbled passage could be judged to be as readable as a sensible passage. Another concern is the temptation to write text to the formula, a temptation likely not resisted by many publishers. According to Benjamin (2012, p. 69), these readability methods “must be used only with appropriate texts (usually defined as authentic books or articles containing at least 300 words).” For very young emergent readers, the more complex readability approaches including those using statistical language modeling are not particularly useful as they are more appropriate for analysis of complex text. Another limitation is that most research on readability was performed on texts in English, although there is some evidence that the variables included in the most frequently used methods may be applied to other languages. Table 3 provides a summary of some of the more widely used or promising readability methods.

4. A corpus is a collection of content (writings, conversations, speeches, etc.) that is used to study or describe a language.

Table 3: Comparisons of Widely Used Readability Methods

Readability Methods	Age Range	Key Features	Strengths and Weaknesses
New Dale-Chall	Grade 1 – college	<p>Sentence length, expanded word list for word familiarity, and cloze score</p> <p>The Bormuth formula for cloze relies on word length and two factors used in the original Dale-Chall formula: percentage of words on the Dale word list and average number of words per sentence</p>	Considered to be the most valid of the traditional readability approaches
Lexile Framework	<p>Beginning reader (<0L)</p> <p>through adult levels at 2000L</p>	Word frequency and sentence length	Very appealing method because it also includes Lexile scores for individuals, which facilitate the match between student and text.
Fry Readability	Recommended for grade 4 and above (DuBay, 2004)	Three 100-word passages are selected from a text. A chart is used to determine the average number of syllables and sentences in these passages, thereby establishing the text's readability (Fry 1968).	Simple method that is still one of the most commonly used. It should be used for short passages (DuBay, 2004).
Advantage-TASA Open Standard for Readability (ATOS)		<p>There are two ATOS readability formulas: the ATOS for Text Readability Formula and the ATOS for Books Readability Formula.</p> <p>Commonly used traditional variables are used in both formulas: word length, sentence length, and grade level of words. The ATOS also considers the length of a book.</p>	This method is used with STAR and the Accelerated Reading Program so the corpus of books is relatively large. All books are used in schools, primarily in the U.S. The method can also be used for articles.
Read-X (Miltsakaki & Troutt, 2007, 2008)		Read-X is a software program that analyzes text readability on the web in real time using traditional variables including number of sentences, number of words, number of “long words,” and number of letters in the text. Read-X is unique in that it customizes the reading formulas for various domains of information. It is currently designed for adolescent and adult struggling readers, although the authors suggest that the method can be used for young readers as well.	Read-X is a promising tool that continues to be researched.

Readability Methods	Age Range	Key Features	Strengths and Weaknesses
Coh-Metrix		Coh-Metrix (Graesser et al., 2004) includes over 50 indices of language, cohesion, and text difficulty.	The Coh-Metrix formula has not yet been modified to determine the difficulty level or the grade level of a text. It should be used only for analyzing texts for adult readers.

III. RESEARCH ON TEXT DIFFICULTY IN LANGUAGES OTHER THAN ENGLISH

One fundamental challenge in addressing the readability of children's texts is that the collection of available texts in many countries is small and not centrally organized. Few studies examine readability in languages other than English, and few countries have carefully analyzed the difficulty levels of texts assigned to elementary school children. Another issue in many countries is the uneven quality of texts in terms of access or readability. One study that was conducted in Arabic (Al-Khalifa & Al-Ajlan, 2010) found that the designated grade level of elementary school materials was very inconsistent across texts.

In a study that examined the application of commonly used readability metrics to the Hindi and Bangla⁵ languages, the authors found that most English formulas are inappropriate, and then proposed new models of readability for these languages (Sinha, Sharma, Dasgupta, & Basu, 2012). Although some have attempted to generate models in Hindi and Bangla using traditional methods such as the Flesch Reading Ease, the authors concluded that "the distinguishing features of Bangla and Hindi render the readability models for English untenable for these languages (Sinha, et al., 2012, p. 1143)." They conducted a study with adult Hindi and Bangla speakers with a proposed model that added average word length and number of jukta-akshars (consonant-conjunct or consonants occurring together in a cluster) as parameters and found that these features contributed significantly to the model. While this study requires significant additional field-testing and validation, it suggests that there are unique parameters for text difficulty in Bangla and Hindi that significantly affect readability. These parameters may be important to the development of more accurate readability methods in other similar languages.

Al-Khalifa and Al-Ajlan (2010) conducted an exploratory study to test a readability formula they developed for Arabic elementary- to secondary-level texts. The authors concluded that average sentence length, word frequency, and a statistical language model were the most accurate tools for classifying the readability of Arabic texts.

The procedures for determining text difficulty in multiple languages continue to be researched, and there are some promising text features that might apply across many languages. However, once text readability has been determined, there remains the question of how then to match readers to texts.

There are many challenges to transforming approaches for calculating readability from English to languages in which there is little or no history of research on text difficulty. The levels of texts must have meaning in the context in which they will be used, and the development of procedures should reflect the levels of reading proficiency of the students to whom the texts are assigned. Thus, the test is not only to create a system for reliably and accurately determining the levels and the readability of existing texts, but also to anchor the system to the actual reading levels of students in a range of grades.

Texts for the primary schools in many countries are arbitrarily designated to represent specific grade/standard levels without any connection to student reading levels, resulting in grade-level determinations with limited utility. Consequently, for readability and text leveling methods to be successful in these countries, it is necessary to create (1) procedures to calibrate existing texts according to difficulty levels that reflect the actual reading levels of students, and (2) new texts with levels that can easily be matched to the reading levels of individual readers.

There is evidence that some of the features of readability formulas developed in English are relevant for other languages. Specifically, average sentence length, average word length, average syllables per word, and word frequency all have been found to have some utility (e.g., Sinha et al., 2012, Agnihotri & Khanna, 1991). However, readability formulas alone cannot address all of the important features of text difficulty.

5. Bangla, which is also known as Bengali, is spoken in Bangladesh and in part of India.

Text leveling provides a qualitative approach that allows elements that cannot be quantitatively measured to be considered in matching readers to text. However, whether the text features identified in commonly used text leveling systems in English are also relevant in significantly different cultures and languages has not been well researched to date. Further, wide use of decodable text is almost nonexistent in many countries.

Determining text difficulty in English can be fairly straightforward if readability is the primary goal. Individuals can apply readability formulas without having to resort to computations using complex formulas; they can cut and paste text into Internet sites that calculate readability using multiple methods.⁶ More recently, cognitively inspired, sophisticated software programs have been created that take into account more nuanced text features in their quantitative calculations of text difficulty. For example, the Coh-Metrix (Graesser et al., 2004) software program conducts analyses on more than 50 indices of language, cohesion, and text difficulty. While technology is providing the most advanced approaches to determining text difficulty, one of the most common methods used in elementary schools in the United States and other Western countries is the qualitative method of book leveling. The Fountas and Pinnell (1999) system is used extensively in the United States, for example. However, most available leveling systems are designed to level existing children's books written in English, making them of very limited utility in many countries.

As students progress through primary school, it becomes increasingly important for teachers to know how to support them with books they can actually read. Yet, in many countries, there is no evidence of any system to identify and create books for primary school students that are aligned with the skills of the readers. Often there are just too few books and those that exist are too difficult for children to access. Thus, in some cases, even with books in the classrooms, children are not reading.

The development of decodable texts for multiple languages and countries requires a clear and systematic approach. If the purpose of these texts is to support children who are learning to read patterns of letter-sounds, then an instructional program must include a scope and sequence of introducing letter names and sounds so that early texts can be directly linked to instruction. Such a program would ensure that early readers are practicing decoding only those letter-sounds that they have learned. When there is no established scope and sequence, it is important to determine the order in which letter sounds are taught. One simple way to do this is with a software program that can identify the frequency of letter and syllable patterns in extant text. For example, SynPhony (Rennert, SIL, 2013), is an open-source software program that creates lists of letters according to their frequency in written text. The program creates word lists, groups of vocabulary words based upon semantics, age of acquisition, and grade level, whether the orthography⁷ of the language is transparent or not. It also can create graded reading materials, including letters and words and activities such as word puzzles.

Another resource is a set of guidelines for developing decodable text in multiple languages that was developed by Room to Read's Book Publishing program in collaboration with its Reading and Writing Instructional Program. This method, which was field-tested in Bangladesh and Nepal in 2012 and 2013, includes the following recommendations:

- 1) Develop a scope and sequence of letter-sound instruction that may include individual letters, syllables, or consonant-consonant or consonant-vowel combinations. For some languages, this will mean determining how many of more than 200 possible letters/combinations will be taught and in which order.

6. See www.interventioncentral.org for an example

7. Orthography generally refers the standardized system for writing a language including spelling, capitalization, etc.

- 2) Create a list of sight words that progress from simple to more difficult that can be used to make the text more meaningful.
- 3) Make each decodable story range from 12 to 16 pages, including front and back covers and title page.
- 4) Use a 22-point font size and use Andika or another easy-to-read font if the language uses the Latin alphabet (download from SIL) unless the script is developed under a different system, for example, the Khmer language.
- 5) Make each page include one to three lines of text and three to six words per line.
- 6) Use approximately 75 percent new words and 25 percent review words for each decodable story after the first text in a developmental sequence.
- 7) Relate illustrations to the text, but do not provide the reader with the option of figuring out the text without having to read the words.

In many countries, decodable texts are a very unfamiliar concept and will require careful explanation. These texts are not intended to replace "easy" readers and more complex text with colorful pictures. They are intended to be inexpensive resources that allow children to practice beginning reading skills early in their instructional program and then to apply them when they read leveled readers, which have fewer constraints on words used in narrative text. Decodable text allows students to build automaticity in their knowledge and use of phonics skills, and encourages the self-teaching hypothesis (Share, 1999), which states that as readers increase skills in decoding, they employ the learned strategies on new and unfamiliar words, and learn how to apply these decoding strategies in new ways.

Creating a procedure for book leveling that can be used at local, regional, and national levels allows educators to inform standards for reading difficulty that can be applied to individual readers as well as classrooms and grade levels.

Text leveling systems produce a gradient, or ladder, of increasing difficulty for texts that are included in the systems (Fountas & Pinnell, 1999). Such procedures can be sophisticated and simple to use as long as the book under consideration is included in the leveling system. For example, the software program, Book Wizard (Scholastic, 2013) provides leveling information when one types in the author or title of a book on its website. Lexiles provide levels for readers and for books so that it can be simple to match readers to texts that have Lexile rankings. But when there is no existing leveling system, the task becomes quite challenging. For countries, districts, and schools that do not have readily available leveling systems for the texts they use, it is important to provide an alternative that is easy to use, does not require sophisticated technology, and can also be validated locally.

The procedures described below are appropriate for leveling sets of books for grade or standard 1 to 3 in primary school. The total number of books is typically between 15 and 26 in the most commonly used leveling systems, but 15 levels may be too fine a gradient in countries where there are far fewer books to level. In such situations, there can be as few as eight levels initially, and these can be revised and expanded as the corpus of texts increases over time.

It is important to remember that these books are quite different in purpose from decodable stories. Leveled books are not usually directly aligned with specific lessons or programs. Rather, they provide important information to teachers and children about the skills required to read various books, allowing for a more accurate match between a student and a book. In addition, leveled books can be effectively used to build vocabulary, develop comprehension skills, learn the structure of narrative or expository text, and develop fluency skills.

If there are two few texts available, then leveling existing texts is not going to provide sufficient books that children can read. Instead, the challenge is one of creating texts and leveling them so that there is a continuum of material available that gradually increases in difficulty based upon the reading skills of children in a particular context.

The following steps describe general procedures for creating a system of leveled books:

Step 1: Determine how many grades of school/standards will need books. That will provide a guide for estimating the number of levels in the continuum.

Step 2: Ten levels are recommended for a system spanning grades 1 through 3. Within each level, it is recommended that a minimum of three different titles be created initially. The first books serves as the anchor against which newly developed titles will be compared.

Step 3: Convene a knowledgeable group of authors of children’s books/stories for a two- to four-day workshop with two goals: having the authors write storybooks that can easily be leveled according to the Rog and Burton (2011) criteria provided in Table 4, and field-testing the new material with children in the grades targeted for leveling.

Steps 4 through 7 take place during the workshop. Step 8 may take place in a follow-up session.

Step 4: Take time with the authors to discuss each of the Rog and Burton criteria: vocabulary, print, predictability, illustrations, content and concepts.

Step 5: Ask each author to create a short passage. Practice estimating an appropriate level of difficulty based on the qualitative leveling criteria.

Step 6: Use Emmett Betts' levels for ensuring that children are provided with books at their reading skill level. In it, the percentage of words that a child reads correctly is used to estimate the child's reading ability or level:

- Easy = 95 percent of words read correctly or better
- Instructional = 90 to 95 percent of words read correctly
- Frustrational = less than 90 percent of words read correctly

Count the number of words in each story created by the authors. Calculate how many words would be read at the 89-percent level, how many would be read at the 90-94-percent level, and how many would be read at the 95-percent level.

Step 7: Field-test the stories in classrooms with at least six children per grade across at least three schools. Ask the teacher to select three children who are average readers, and three who are good readers to read a set of stories aloud individually to a member of the team conducting the field-testing.

- Ask each child to try to read the three stories designated for that grade level. Determining accuracy is a first step in validating the book levels.
 - If the stories are too difficult—the child misses more than ten percent of the words she reads—go to the next lower level. (If the stories are at the beginning level, then simpler stories must be written.)
 - If the stories are read with 90 percent accuracy or better, then ask the student to read the next level up to see whether these books are more difficult read and to validate the sequence of the texts.

The goal is for children to read one level easily; the higher levels should be progressively more difficult.

Step 7 may be repeated several times until a clearly defined progression of levels is established across the designated grades.

Step 8: Authors reconvene and adjust the stories if necessary according to the field-test results.

At the end of the workshop, there should be at least three stories for each of the levels created and at least 20 copies per title available for students.

Step 9: The validated stories become the anchors for creating new stories at these levels. All new stories should be field-tested, but with anchors for comparison, the process should become much more efficient.

Table 4 includes recommended criteria for determining book levels using extant text so that existing books can be appropriately identified according to their level of difficulty. Calculating book levels is only the first step in determining a national or regional book leveling system in each context in which these criteria are applied. The next step is to field-test the levels across urban, peri-urban and rural contexts to validate the criteria.

The levels in Table 4 are based on characteristics of content that are simple to understand and can be universally applied, even if all those listed within a level do not apply in a particular language. Although the procedure is subjective, it is very useful, and some reliability is added if country experts participate in leveling existing primary texts and comparing the results.

Table 4: Determining Book Levels (adapted from Rog and Burton, 2001)

Level	Vocabulary	Print	Predictability	Illustrations	Content and Concepts
1	<ul style="list-style-type: none"> 0-2 words per page Key early sight words Title may be more difficult than the rest of the story 	<ul style="list-style-type: none"> Large print found in the same place on every page Short book (probably 8 pages) 	<ul style="list-style-type: none"> No rhyme or pattern 	<ul style="list-style-type: none"> Simple, clear, no clutter Provide strong, direct support for text 	<ul style="list-style-type: none"> No story line Labeling of pictures of familiar objects and actions
2	<ul style="list-style-type: none"> Simple, familiar language Some sight words repeated in the text pattern Usually a repeated phrase or short sentence 	<ul style="list-style-type: none"> Consistent placement of print Short length 	<ul style="list-style-type: none"> Usually a consistent pattern that may change slightly at the beginning or end of the book 	<ul style="list-style-type: none"> Text is usually labeling of pictures Very strong picture support for text 	<ul style="list-style-type: none"> Familiar objects or actions No evident story line
3	<ul style="list-style-type: none"> Usually complete sentences May see verb changes in the pattern, such as singular to plural, or 	<ul style="list-style-type: none"> May have 1 or 2 sentences per page May include questions Consistent placement of print on the 	<ul style="list-style-type: none"> Usually a pattern with 1 or 2 words changing on each page 	<ul style="list-style-type: none"> Direct support for text 	<ul style="list-style-type: none"> Familiar objects and actions No evident story line

Level	Vocabulary	Print	Predictability	Illustrations	Content and Concepts
	addition of /ing/ or /s/ <ul style="list-style-type: none"> • More sight words 	page			
4	<ul style="list-style-type: none"> • Simple, familiar language • Increased sight words • May include prepositional phrases 	<ul style="list-style-type: none"> • Consistent placement of print • Longer sentences 	<ul style="list-style-type: none"> • Strong pattern which may have 2 or more word changes on each page 	<ul style="list-style-type: none"> • Illustrations with familiar objects/actions provide strong support 	<ul style="list-style-type: none"> • Usually about common experiences of young children
5	<ul style="list-style-type: none"> • Increased number of sight words • Mostly decodable words 	<ul style="list-style-type: none"> • 1 to 3 sentences per page, require reader to make a return sweep • More punctuation 	<ul style="list-style-type: none"> • Similar to Level 4 at first, but ending may be completely different pattern • May have 2-3 pattern changes 	<ul style="list-style-type: none"> • Still high support for text • Familiar objects and actions 	<ul style="list-style-type: none"> • Starting of simple story line • May have more than one character talking
6	<ul style="list-style-type: none"> • Mostly decodable text and sight words • Some 2 syllable words 	<ul style="list-style-type: none"> • 2-3 sentences per page • Short, choppy sentences • Conventional punctuation • Print is large and usually consistently placed on the page 	<ul style="list-style-type: none"> • Repetitive patterns may occur • Some cumulative or chronological patterns (e.g. days of the week). 	<ul style="list-style-type: none"> • Continue provide high support for text 	<ul style="list-style-type: none"> • Many familiar objects and actions • Simple sequence of events • Predictable • simple story line • More conversation
7	<ul style="list-style-type: none"> • More new words introduced in each sentence 	<ul style="list-style-type: none"> • Longer, more detailed sentences 	<ul style="list-style-type: none"> • Sometimes rhythmic • May have 2-3 different sentence patterns 	<ul style="list-style-type: none"> • Picture cues provide moderate to high support 	<ul style="list-style-type: none"> • More detail in story line
8	<ul style="list-style-type: none"> • More unique words introduced per page, but still dominated by high frequency words. • New vocabulary repeated often 	<ul style="list-style-type: none"> • Longer stories, more words per page 	<ul style="list-style-type: none"> • Sentence pattern still apparent, but doesn't dominate text • Lots of repeated text • Highly predictable 	<ul style="list-style-type: none"> • More detailed, less supportive of text 	<ul style="list-style-type: none"> • Book language begins • More sophisticated sequence of events • Single event continues over several page with a variation

Level	Vocabulary	Print	Predictability	Illustrations	Content and Concepts
	<ul style="list-style-type: none"> in text Stilted language 				<ul style="list-style-type: none"> in sentence patterns
9	<ul style="list-style-type: none"> Beginning of "literary language," blend of oral and written language structures More print on the page, mostly high-frequency More new vocabulary, less likely to be repeated 	<ul style="list-style-type: none"> Longer sentences, compound and simple Increased length of books 	<ul style="list-style-type: none"> Few patterns 	<ul style="list-style-type: none"> Picture cues less supportive of text 	<ul style="list-style-type: none"> Predictable storyline with increasing sophistication May have a "twist" at the end. Conversations among several characters
10	<ul style="list-style-type: none"> Increasingly difficult vocabulary More unfamiliar words per page, less likely to be repeated May contain "book language" 	<ul style="list-style-type: none"> Longer sentences, little pattern Increasing amounts of print Longer stories, longer sentences Line breaks at phrases Up to a full page of text Still likely to have an enlarged font 	<ul style="list-style-type: none"> Patterns of phrases may appear Variable or no pattern at all Predictability through rhyme, cumulative structure 	<ul style="list-style-type: none"> Pictures provide less direct support to text 	<ul style="list-style-type: none"> Conversations among many characters More connected story line May have "twist" at the end Figurative or poetic language may appear Single event continues over several pages

Table 5 provides information on the strategies that children need in order to read at each book level (Rog & Burton, 2001). These strategies begin with early print awareness, reflecting knowledge students often gain by listening to a teacher who points out important information about how written language works. In this way, students often start to understand the structure of the language they are learning to read. They may also be introduced to simple decodable stories that will enable them to practice reading words they can sound out. Practitioners should remember that the use of decodable books and leveled books can overlap with children reading both at the same time, if the resources are available. Each serves a distinct purpose. A student can read a decodable story independently because the words in the book have been explicitly taught. In contrast, a reader may not know all the words in a leveled book, but should be able and motivated to get the gist of the meaning with the support provided by the pictures.

Table 5: Strategies that Children Need in Order to Read at Each Book Level

Level	Reader Skills
1	<ul style="list-style-type: none"> • Understands the direction of print from top to bottom of a page, left to right direction for reading, etc. • Understands the difference between picture and text • Begins to match voice to print (number of words spoken equal to number of words in print) • Reads pictures
2	<ul style="list-style-type: none"> • Uses language patterns to predict • Relies heavily on pictures to access text • Relies on own speaking vocabulary and oral language structures
3	<ul style="list-style-type: none"> • Predicts using text patterns • Can return sweep of eyes to read two lines of text. • Begins to notice initial consonants • "Gets mouth ready" to say the words • Uses pictures to check and confirm
4	<ul style="list-style-type: none"> • Can return sweep of eyes to read one sentence on two lines • Notices punctuation • Remembers repeated words • Uses a core of high-frequency words • Uses initial consonant or syllable to predict words
5	<ul style="list-style-type: none"> • Uses patterns that consist of several words or an entire sentence • Notices differences and similarities in sentence patterns • Begins to monitor comprehension (may pause before an uncertain word or after a miscue has been made) • May self-correct when misreading some words • May reread a line for clarification • Builds a small repertoire of sight words
6	<ul style="list-style-type: none"> • Notices similarities and differences in parts of words • Uses phonological and orthographic knowledge to sound out (decode) and read words • Begins to rely on comprehension strategies such as self-monitoring • Can retell key elements of the story in the appropriate sequence
7	<ul style="list-style-type: none"> • Begins to use structural cues of the language, when appropriate, to decode (for example, plurals, affixes, etc.) • Self-monitors reading for comprehension by pausing if a word does not make sense, or going back and rereading • Self-corrects when word does not make sense

Level	Reader Skills
	<ul style="list-style-type: none"> • Uses story sense to predict storyline
8	<ul style="list-style-type: none"> • Reads with more fluency and speed; uses punctuation and phrasing • Can follow a single sentence or event over several pages • Relies less on picture cues and more on large chunks of text for comprehension • Has a large repertoire of sight words • Sustains interest and motivation with longer text
9	<ul style="list-style-type: none"> • Accesses more than one reading strategy; will try another if one does not work • Can retell the story, recalling important details and omitting irrelevant points • Notices conversations among characters and reflects differences in oral reading • Notices and uses punctuation cues • Begins to make inferences about stories
10	<ul style="list-style-type: none"> • Reads with increased fluency and phrasing • Continues to use knowledge of the language structure to sound out and read new words • Demonstrates willingness to take risks • Notices and appreciates book language or new forms of text • Can retell figurative language in own words • Uses rhyme as a prediction strategy • Has a mastery of basic sight words

Matching students to readers provides students with the guidance they need to select books that they can read independently. Teachers can use the reader characteristics, which correspond to the text levels described in Table 4 to select books that match children's reading levels. Labeling books according to difficulty means that more children will have books that are easy enough for them to read and challenging enough for them to make progress.

Another resource to help teachers determine general levels of difficulty of children's books provides a code based upon text and print features. This method, shown in the adapted version below (Table 6), was developed by Dzaldov and Peterson (2005, p.224). In it, book and print features are summarized by a numbering code in which the higher the total score, the more difficult the text.

Table 6: Coding for Text and Print Features

Text and print features	Codes
Number of pages	1 = (1-10 pages) 2 = (11-25 pages) 3 = (26 + pages)
Size of print and font type that is easy to read such as Andika (from SIL*)	1 = Large font (20 +) 2 = Medium font (14-18)

Text and print features	Codes
	3 = (10-12)
Spaces between words and lines	1 = Well defined (NOTE: some languages are not written with spaces between words, which will make reading more challenging to young readers) 2 = Not well defined or no spaces due to the structure of the language
Presence of organizational features such as headings, a table of contents, indexes	1 = No use of headings, a table of contents, index 2 = Use of these features
Placement of sentences and phrases on the page	1 = Either left or right margin placement consistent depending upon the structure of the language 2 = Not consistent
Number of illustrations to the amount of text	1 = On every page or every other page 2 = Less than every page or every two pages
Relationships of illustrations to print	1 = Closely related 2 = Not closely related
Text structure: narrative, expository, poetry	1 = Simple narrative, expository 2 = Complex narrative, expository 3 = Poetry

* http://scripts.sil.org/cms/scripts/page.php?site_id=nrsi&id=andika_download

IV. RECOMMENDATIONS AND DISCUSSION

Close attention needs to be given to developing books and supplemental reading materials that are appropriate for students in all grade levels. Since so many current texts in so many countries are too difficult for readers of all ages, it is important for Ministries of Education to consider using systems that analyze texts according to the reading ability required to access them. It is also crucial that they schedule time to field-test proposed national textbooks to ensure that they are accessible to the children in grades for which they are intended. More information on students' reading skills at primary and secondary levels is critical to any effort to improve educational achievement at all levels. In addition, more explicit information should be provided in national curriculums about how to teach reading that includes a scope and sequence of letter-sound instruction that can guide the creation of early decodable text.

National systems are needed for leveling existing texts. Publishers should learn how to create leveled reader sets in national languages that are similar to the Fountas and Pinnell framework for leveling books so that texts do not continue to be published that are too difficult to be read by the children who so desperately need them. Also, there is evidence that older students in some contexts are not using subject textbooks to gain further reading skills and an understanding of content. For example, in a study of student use of science textbooks in secondary classrooms in Namibia (Lubben, Campbell, Kasanda, Kapenda, et al., 2003), the authors found that teachers rarely referred to the text during instruction. During classroom observations, about 40 percent of the students were observed making no use of their texts in class at all. Texts were used primarily for diagrams and other data, not for general content and information. Such evidence suggests that the recommendations made in this paper may have some applicability beyond primary grade classrooms.

More research is needed so that books that children can read and understand can be developed throughout the world. Field-testing of texts developed for primary and secondary levels is currently not common in many countries, and it is crucially important. There also should be an investment in research to learn whether proposed textbooks are at appropriate reading levels for students in all grades/standards.

Research is also needed on readability—including leveling and decodable text—by language and country. This will help generate credible information on students' reading levels, which in turn can inform the development of new texts. Current reading levels do not need to be accepted as benchmarks for reading; many countries are working hard to improve the achievement levels of students in all grades. However, knowledge of current reading levels is critically important as a starting point for improvement. Then educational systems can respond to current skill levels and simultaneously work to improve them.

Experiments with readability formulas developed for the English language are also important. Although there is some evidence that readability formulas can be usefully applied in a variety of languages, more research is needed to ensure that the information is valid. Which formulas can be most effectively applied in which languages? What modifications might broaden the applicability of the formulas?

Reading is a skill that is essential to learning. Leveled and decodable texts are important tools for creating effective early reading programs. Countries without these resources may be faced with reading materials that are simply too difficult for young readers. It is hoped that the suggested methods for leveling and creating decodable text will be implemented and adapted in multiple contexts. All children should have access to books they can read.

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ANNEX A: NEPAL READER

शुद्धता १
'अ' मात्रा



छठ छ

यस कितापका लागि
लेखन कार्यशालाका सहभागी लेखकहरू

अनन्नाप्रसाद बाले
शुद्धप्रसाद अधिकारी
कृष्णदीप तिवरि
गंगा चौडेल
गोपीकृष्ण बुङ्गाना
जनाइन बराज
एवम् घिमिरे
बिमलदेव मिश्र
यशु श्रेष्ठ
शैलेश्वरकाश नेपाल
सूर्य बिस्नी
हरिहर निर्मल्लिना
शानमिष्ठ त्वासी

चित्राङ्ककर्ता :

सुनिल थापा

प्रकाशक :

रुम टु रीड पोस्ट बक्स नं. २११०३, काठमाडौं, नेपाल, फोन ५५२३६८७,
Room to Read Post Box 21103, Kathmandu, Nepal, Phone: 5553987,
email: nepal@roomtoread.org
web: <http://www.roomtoread.org>

छठ चहल पहल छ ।



जय लय घर नबस ।



बस चढ बगर भर ।



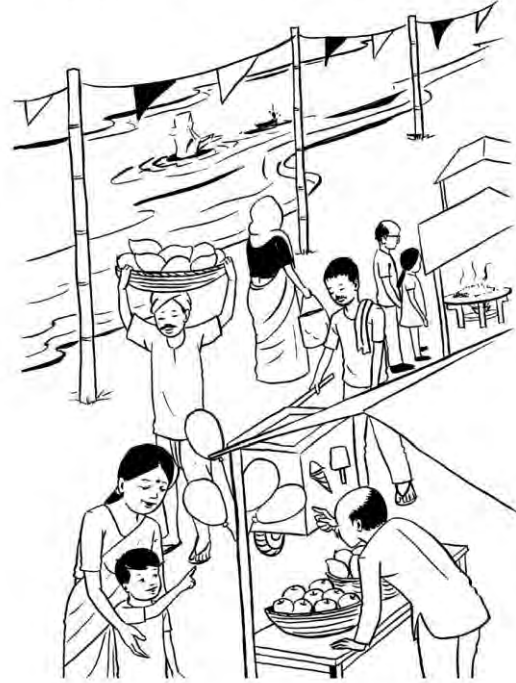
कमर कमर जल छ ।



बगर छ भलल ।



पसल छ बगर वर ।



पसल भर फल छ ।



ल अब अझ रम ।



छट छ

अक्षर चिनेर सही र स्वतन्त्र रूपमा उच्चारण गर्न बालबालिकालाई सक्षम गर्ने धी अध्ययन सामग्री (Doodable Readers) प्रकाशनमा ल्याउन पाउँदा हामी खुसी छौं । यस विषयमा धेरै हाम्रो पहिलो प्रयास हो । बालबालिकालाई सहज रूपमा पढ्न सक्षम पुर्याउन यसको उद्देश्य हो । कथासहितका धी कितापका शृङ्खला पढेर बाल-बालिकाले रमाइलो मान्नेछन् साथै अक्षरको सङ्गोर्बाना तहगत र सही उच्चारण गर्न सक्षम हुनेछन् । सम्पत्ता धी अध्ययन सामग्री नेपाली बर्णविन्यासका अर्थ तथा मात्राहरूलाई क्रमिक रूपमा सहज ढङ्गले विनाउन उपयोगी हुनेछ र यसले बालबालिकाको पढ्ने सीपको विकासमा मद्दत पुर्याउनेछ ।

शिक्षकलाई निर्देशन :

- सम्बन्धित मात्राको चिनारीपाठ प्रत्येक बालबालिकालाई धी किताप पढ्न दिनुहोस् ।
- बालबालिकालाई पढिरहेको बेलामा निरीक्षण गर्नुहोस् । धेरैजसो बालबालिका बुन्ने शब्दमा अडिएका छन्, वा उनीहरूलाई पढ्न गाह्रो भएको छ भने ती शब्दलाई टिपेर राख्नुहोस् ।
- गाह्रो मानिएको शब्दका बनेट बालबालिकालाई राधरी बुझाएर ती शब्द पटक पटक उच्चारण गरिदिनुहोस् । बालबालिकालाई पनि ती शब्दको उच्चारण अभ्यास गराउनुहोस् ।
- बालबालिकाले पढिसकेपछि धी कितापको अन्तिममा रहेका



सिहित बालबालिकाहरूबाट नै विश्वमा परिवर्तनको बालनी हुन्छ ।
World Change Starts with Educated Children!

शब्दहरू :

छठ चहल पहल छ जय लय घर
नबस बस चढ बगर भर भलल
कमर जल पसल वर भर फल ल
अब अझ रम

बोधका लागि प्रश्नहरू :

- के चहल पहल छ ?
- जय र लय कहाँ नबस ?
- के भलल छ ?
- जल कहासम्म छ ?
- पसल भर के छ ?

ANNEX B: DECODABLE READER BANGLADESH



আমার খালা
পড়তে শেখা ২

পিতলের পুত্র মক্কা সুঁড়ির লেখা বিক্রেতালব্ধ বুক বা গল্পে শেখার বই গবেষণা ও উন্নয়নের
জানা রুম টু রিড ২০১০ সালে একটি কর্মশালা আয়োজন করে। কর্মশালার এই নিবন্ধের ২৪টি
বই প্রণীত হয়।

গবেষণা, উন্নয়ন ও প্রকাশনা
রুম টু রিড, বাংলাদেশ
৬/০ (কুর্টীয়া ও সফুরা জমা), ব্রক- ডি
লালমারিয়া, ঢাকা-১২০৭

ছদ্মনাম
এটিতে সিনাইজ

সংস্করণ
প্রথম, মুদ্রণ সংখ্যা ৭, ১৬০

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আর গান গায় ।



কাক কয় কা কা কা ।



কাক রাগ হয় ।



খালা কয় এই নাও ভাত ।



কাক সাদা ভাত খায় ।



খালা আবার গান গায় ।

ব্যবহৃত মূল শব্দসমূহ
আমার, খালা, পান, গান, কাক, রাগ,
ভাত, সাদা, আবার

ধাপ

ছাত্রছাত্রীরা গল্পটি পড়তে কতটা বুঝতে পারল তা যাচাইয়ের জন্য নিচের প্রশ্নগুলো করুন:

- ১। খালা কী করে?
- ২। কাক রাগ হয় কেন?
- ৩। খালা কাককে কী বলে?
- ৪। কাক কী খায়?

শিক্ষক বইটি বেভাবে ব্যবহার করতে পারেন

এই গল্পটি আ-কার মুক্ত শব্দ দিয়ে শেখা। শ্রেণিকক্ষে আ-কার এবং আ-কার মুক্ত শব্দ শেখানোর পরপরই শিক্ষার্থীদের এ বইটি পড়তে দিন। এর মাধ্যমে তাদের আ-কার মুক্ত শব্দ পাঠের দক্ষতা বৃদ্ধি পাবে।

- শ্রেণিকক্ষে আ-কার এবং আ-কার মুক্ত শব্দ শেখানোর পর নির্দিষ্ট দিনে শিক্ষার্থীদের এককভাবে বইটি পড়তে দিন।
- নিজে পড়তে না দিয়ে শিক্ষার্থীদের দ্বারা শব্দা নিশ্চিত করুন।
- কোনো শব্দ একেবারেই পড়তে না পারলে সোচ্ছন্দে শব্দটি বলে দিন।
- গল্পটি শিক্ষার্থীরা কতটা বুঝতে পারল তা জানার জন্য উপরের প্রশ্নগুলি জিজ্ঞেস করুন।
- বোর্ডে আ-কার মুক্ত কিছু নতুন শব্দ লিখুন এবং করেকজন শিক্ষার্থীকে পড়তে বলুন। শিক্ষার্থীরা পড়তে পারলে কিনা যাচাই করুন এবং ভুল হলে তথ্য দিন।



শিক্ষিত শিশু বিশ্ব পরিবর্তনের সূচনা

Decodable Book 2. This is one of the series of 24 decodable books. Developed and published by Room to Read Bangladesh in 2013 as part of the Grade 1 reading scheme under its Literacy Program.
© Illustration: Shalab Chakraborty

ANNEX C: SAMPLE TIMAWERENGA! DIGEST PAGE (MALAWI)



Sample Timawerenga! Digest Page

aA

ana
alate
athu

amay
agogo
apusi

awa
anthu
aka

Story 1	
Cover	Banja Lathu
Page 1	Ana
Page 2	Ana alatu
Page 3	Amayi
Page 4	Alate
Page 5	Agogo

Story 2	
Cover	Nyama
Page 1	Abalha
Page 2	Agalu
Page 3	Apusi
Page 4	Achule
Page 5	Abuluzi
Page 6	Akalulu



Sample Timawerenga! Digest Page

mM

amay
madzi
mano
maso
mulu
Mame
meta

moni
mala
malata
mulu
malutu
makala
mala

makola
mloma
mata
malata
manja
meta
munthu

Story 1	
Cover	Mala
Page 1	Amayi ayatsa moto
Page 2	Amayi a-ma-phi-ki-ra mala
Page 3	Moto u-ma-u-ni-ka
Page 4	Moto u-ma-a-icha
Page 5	Moto ndi wa Malawi

Story 2	
Cover	Mame mam mawa
Page 1	Mame m mawa
Page 2	Mame akanuka
Page 3	Munthu wanowwa ndi mame
Page 4	A-ma-pe-ze-ka muzomera
Page 5	Mame ndi madzi

Story 3	
Cover	Mulu
Page 1	Mulu wa chimanga
Page 2	Mulu wa mbatata
Page 3	Mulu wagwa
Page 4	Ikani mapes pa mulu
Page 5	Mbatata ziri pa mulu

Story 4	
Cover	Lima Munda
Page 1	Marita ndi mimi
Page 2	Amalima mbewu
Page 3	Amalima chimanga
Page 4	Amalima masamba
Page 5	Mbewu a-ma-qu-i-ta
Page 6	Marita ndi mimi

