

Miller, K. The Adequacy of Developmental Reading Assessment (DRA) Scores to Measure Reading Ability of English as a Second Language (ESL) Students (2007)

The purpose of this study is to analyze the adequacy of Developmental Reading Assessments (DRAs) to measure reading levels of ESL students. Related topics include oral reading fluency, comprehension, models of reading, assessment, and reading in a second language. Case studies of six ESL elementary school age students given DRAs are reported. Oral reading fluency and comprehension performance was contrasted individually and collectively for the six case studies to determine an answer to the research question: Do DRA scores adequately measure the reading levels of ESL students? Findings and analyses of this study suggest that DRAs do not provide an adequate measure of ESL student reading ability.

CHAPTER ONE: INTRODUCTION

Another blue half sheet was in my mailbox. It was the third one in six weeks. The notice was for me to attend a child study meeting for another one of my ESL students. I would be expected to share information regarding student performance in relation to language ability.

I donned my role as an advocate for my ESL elementary student. I attended another child study meeting and explained what the teachers, administrator, and instructional support staff needed to know about DRA (Developmental Reading Assessment) scores and about reading.

DRA scores are based on a commercial assessment tool that uses aspects of the reading process to provide numerical data. The aspects of the reading that are tested are oral reading and comprehension. Students read the text aloud and are graded on fluency criteria. They are asked to retell what they read. They are then asked a few comprehension questions that were not answered in their retelling. Each of these tasks for assessing reading will be discussed in more detail later in this paper.

Reading is about making meaning. Huey (1908) wrote this over 100 years ago. He commented that to completely understand the process of reading would be the acme of a psychologist's career. Psychologists could not hope to accomplish an achievement greater than this.

Thorndike (1917) wrote similar views. He said that reading is about thinking. It is about reasoning and making connections. It is not about *barking at print* (Rumelhart, 1977). That was something I tried to tell teachers and staff members. It seemed to catch them off guard. *Barking at print?* Whoever heard of such a thing? Yet, Rumelhart is known for his claim that saying the words by calling them out, or oral reading, is not necessarily reading.

I reminded teachers and staff members in each child study meeting that the DRA scores they were reporting for the reading ability of the ESL student might not be valid or reliable data, and that the numbers might not be accurate estimations of what the ESL student could read and understand. Despite correlations the National Reading Panel (2000) tied to fluency and comprehension, reading orally and reading to understand are different processes. They should be assessed differently. They should be analyzed differently.

So when teachers met to discuss ESL student achievement and used DRA scores to cite reading ability, it appeared to me a grave problem that no base or ceiling levels of comprehension were stated. Teachers did not seem to know the base, or how low, the student had performed regarding comprehension, nor the ceiling, or how high, the student could comprehend on leveled texts used for the DRA assessment. Also, in using the oral reading fluency scores as the main determinant of reading levels, records seemed questionable and the instructional plans not appropriate for our ESL students.

As I contemplated reasons for this oversight, I surmised three. One possible reason for the inadequacy of DRA scores is that these scores reflect independent or instructional oral reading ability, not independent or instructional levels of comprehension. The independent level is the level at which students can read text without assistance or instruction. The instructional level is the level at which students need assistance or instruction to read adequately.

Some ESL students are able to pronounce the words. Some even appear to read fluently, showing proper phrasing and expression; however, they do not understand what they have read when they finish reading. They may appear as experts at decoding, but they cannot comprehend the text. They cannot retell what they read. Nor can they connect what they read to what they know, and thereby, make connections to themselves, other texts, or to their world.

One of my first-grade ESL students, Yanging, was such a reader. (Original names have been replaced with pseudonyms to conceal identity.) Yanging could say the words. She scored a 12 on a selected text, which reflects approximate middle of the year reading ability for first grade, but when asked questions about what she had read, she performed at a frustration level. She was unable to read it without becoming frustrated. When asked to orally retell what she had read, she responded with only a couple of details, failing to recall important ideas. So although the score of 12 indicated that Yanging could be reading near grade level, her comprehension level was lower, and because of the administration of the testing, how much lower was not revealed. It was also not determined if her inability to recall the text was due to comprehension or language deficiencies.

A second possible reason DRA scores might not adequately convey reading levels is that some students orally read at a much lower level of proficiency than they comprehend. As an ESL teacher, I worked with one such student this past semester. José struggled with decoding. He appeared to have long-term memory challenges, because of the amount of time and practice needed to acquire automaticity for the lower-level processing skills such as phonological and phonics skills. His oral reading performance was not fluent; nonetheless, José would plod through text and recall most of what he read. He monitored his reading, rereading when he did not understand. His classroom teacher was concerned. She recorded his DRA reading score as a 4, which at the time meant he was reading at a level he should have attained by the end of kindergarten, yet it was now on into the second semester of first grade. However, when I worked with José, he could comprehend texts with readability levels in the 20s, which is considered second grade. He seemed amazed. I was not. I gave him much more difficult books to read than his mainstream classroom teacher did. I did this because I knew I could help him read the words

in the text by doing pre-reading tasks. Some of the pre-reading tasks included previewing the text, building background knowledge based on concepts and pictures, and pre-teaching vocabulary. Providing these pre-reading tasks empowered him to be successful at the *psycholinguistic guessing game* as Goodman (1970) advocates the reading process. José was able to use the background knowledge provided coupled with knowledge about the English language to make predictions that enabled him to comprehend what he read.

A third reason that DRA scores may not provide accurate reading levels is that some ESL students do not pronounce English words correctly. Many of my students like Ivy and Thien drop morphemes, or word endings, when they read, place stress incorrectly, or pronounce letter sounds in such a way as to be marked as errors in oral reading according to the DRA instructions. Sometimes this is a reflection of language development (Fillmore & Snow, 2005; Lightbown & Spada, 1999), and an area of language learning that develops later or is delayed. Some of my ESL students like Yosenia and Angel change the syntax to reflect their first language. I am particularly keen to my Spanish-speakers who do this, because I know the grammar of Spanish. Although these miscues can be seen as negative transfer errors, they are still marked as errors, despite my awareness that these students can decode and comprehend the text. So I can understand how teachers mark DRAs based on oral reading, but it does not seem appropriate to count language development errors as reading errors. Nonetheless, the problem is that they do not extend these DRA assessments to determine accurate student comprehension levels.

I voiced my concern to teachers this past semester. I spoke with them in committee meetings and one-on-one. I reminded them of what the oral reading fluency scores suggest, but may not show. Time being a shortage, teachers did not make the effort to use the

DRA to determine both oral reading fluency and comprehension scores for the independent, instructional, and frustration levels. Hence, I decided to conduct this study to show that there are variables that affect DRA scores of ESL students; however, these variables need not impede reading instruction if teachers are alert to understand what oral reading fluency scores do and do not report concerning comprehension. For this reason, the aim of this research is to explore the variance of reading scores in case studies of students assessed using DRAs and to answer the question: Do DRA scores adequately measure the reading levels of ESL students?

The following four chapters of this paper will embrace this inquiry. Chapter Two is a literature review. Topics included are oral reading fluency, comprehension, models of reading, assessment, and reading in a second language. Chapter Three describes the study that was done to provide answers for the question. Sections include design, subjects, procedure, data analyses, and a summary. Chapter Four is the presentation of results and a discussion. Each of the subjects studied will be examined in relation to the research completed. Analyses of both qualitative and quantitative data will be examined. Chapter Five considers implications and possible limitations. Significant findings are shared regarding DRA scores and the reading ability of ESL students.

CHAPTER 2: REVIEW OF LITERATURE

Do DRA scores adequately measure the reading levels of ESL students?

Answering this question is the purpose of this research. Topics addressed in the literature review are oral reading fluency, comprehension, and assessment in relation to models of reading and second language learners. Attention is given to oral reading because of its role in determining reading scores through the DRA. Models of reading exhibit the factors to comprehending text and what needs to be considered when assessing reading, particularly for second language learners.

Oral Reading Fluency

Put Reading First (2001), a publication developed by the Center for the Improvement of Early Reading Achievement (CIERA) and supported by the National Institute for Literacy (NIFL) includes fluency as one of the five areas of reading instruction. The five areas reported are phonemic awareness, phonics, fluency, vocabulary, and text comprehension. In the findings of the *National Reading Panel Report* (2000), researchers concluded that fluency is the ability to read a text quickly and accurately, but there is more.

Fluent readers focus on making connections. Their attention is on the ideas in the text and associating these ideas to their own background knowledge. In contrast, less fluent readers focus primarily on decoding individual words. Their attention is on recognizing the words, leaving less mental energy for understanding the text. The writers of *Put Reading First* (2001) say that oral reading fluency and automaticity do not mean the same thing.

Automaticity refers to accurate, fast word recognition (LaBerge & Samuels, 1974), which

fluency includes, but fluency also embraces additional factors such as reading with expression (Walker, Mokhtari & Sargent, 2006). Reading with expression signals language application of prosody: appropriate intonation, volume, and rhythm. Walker, Mokhtari and Sargent (2006) concur that fluency demonstrates understanding, because to read with appropriate intonation, volume, and rhythm, readers must have integrated and comprehended appropriately at the morphological, syntactic, and semantic layers of language. Walker, Mokhtari and Sargent also suggest that the development of these language skills and competencies is gained through experiences in reading and exposure to concepts contained in texts.

Reading Comprehension

Nathan and Stanovich (1991) align their views with cognitive psychologists (LaBerge & Samuels, 1974) to explain that humans have limited cognitive capacity: that which is devoted to one task leaves less for another. This assumption of limited processing capacity, or limited cognitive resources, proves out in reading in regards to the lower- and higher-processing tasks. Some researchers and practitioners refer to these tasks in terms of *top-down* and *bottom-up* processing (Stanovich, 1980). According to the model of LaBerge and Samuels (1974), cognitive processing required to recognize words, which is seen as a bottom-up process, leaves less attention and memory for comprehending and associating meaning to what readers already know, or their background knowledge, which reflects the top-down process. For this reason, fluency can be used as a gauge that illumines potential cognitive processing resources available for comprehending. This is true for some readers, not for all, but one reason for assuming that fluency scores correlate with comprehending.

Nathan and Stanovich (1991) suggest that improving fluency is best done by reading: practice in reading. They warn, however, that nonfluent word recognition may result in

unrewarding reading experiences, which can lead to less involvement in reading activities. Hence, nonfluent reading can result in negative gains in skill.

Nassaji (2003) states that second language reading is a multivariate skill. It involves complex integration of cognitive and linguistic skills. It ranges from low-level processing abilities of decoding print and encoding visual images to high-level skills involving syntax, semantics, and pragmatics. Readers are required to integrate knowledge of text to their own global knowledge experiences. Nassaji argues that linguistic deficiency restricts reading comprehension and leads to less efficient processing of text. Although the 60 L2 readers she studied were graduate students and not children, the skill of fluency in reading was no less integral. Nassaji reports on her investigation of the role of lower-level word recognition and graphophonemic processes of L2s. She examined the extent skilled and less-skilled readers discriminate these lower- and higher-level processes. Her findings suggest that efficient lower-level word recognition, phonological, and orthographic processes are critical for L2 reading comprehension success. Even in highly advanced L2 readers, dependency of lower-level skills must be practiced at successful levels of fluency so as not to interfere with effective comprehension.

Oral and Silent Reading

Allington (1984) notes that oral reading imposes different demands from that of silent reading; for example, public versus private performance, personal versus external monitoring of performance, and the grave one: emphasis on accuracy of production versus accuracy of meaning construction. Allington makes no distinction for first or second language learners. He denotes that oral reading is generally used for public performance, external monitoring of performance and emphasis on accuracy of production, leaving silent reading to encompass private

performance, personal performance, and accuracy of meaning construction. Noting these differences is important to note when interpreting assigned DRA scores.

LaBerge & Samuels (1984) contrast differences between the processes of oral and silent reading, noting particularly the component of attention, and how it is required to derive meaning from text. They add that the amount of attention is as a resource, and that individuals possess limited amounts of this resource. As to limited, LaBerge and Samuel state that at a given interval of time, there appears to be a limit to the amount of this variable available. To say it a different way, attention is a renewable resource for text processing, but there is a limit to the amount of attention available over any unit of time. Readers allocate attention; how attention is allocated during the reading process influences the outcome of their reading experience.

If readers allocate attention to recognize the graphophonemic level of text, or lower-level processing features, also referred to as bottom-up processing, then less attention is available for processing meaning and integrating the meaning of words, sentences, and passages to their own background knowledge and experiences. They are less able to approach the task as a top-down process.

If readers allocate attention to performing the act of reading text orally, they leave less attention to understanding what they are reading. They may not even be thinking about the meaning of the text. Their focus may be on producing what Celce-Murcia, Brinton, and Goodwin (1996) refer to as segmentals and suprasegmentals of the language, particularly if the readers are orally reading a text that represents a second language for them.

Bernhardt (1983) investigated the effect of oral and silent reading on second language reading comprehension. She confirmed her hypothesis that silent reading significantly enhances comprehension, regardless of second language abilities. The subjects in her study read expository

texts written in German. Students were characterized according to German language ability as *good* or *poor*. Each student read two expository passages. Random assignments were made to determine which text each individual student read first, and whether the text was read silently or orally.

Bernhardt (1983) concluded from her study that oral reading should not be used as an instructional task to help students understand text. Her results suggest that silent reading is more effective than oral reading in helping students comprehend texts in German, despite their grammatical knowledge of German. She asserts that this applies within other contexts of reading a second language as well.

Bernhardt (1983) explains that reading silently enhances comprehension. It allows students to attend to the message, not how to pronounce the words or produce the prosodic features. Of interest was her finding that students reported the oral reading task as more difficult than the task of reading silently, regardless of the passage read. If these propositions are affirmed, then using oral reading fluency scores to determine reading ability of second language learners is a practice to question.

Models of Reading

Reading is complex. Assessing it is even more so. How can a process that is not fully understood, and that is highly individual and context dependent be measured? Einstein cautioned researchers that, “Not everything that can be counted counts, and not everything that counts can be counted” (Moncur & Moncur, 1994). Despite this sobering limitation, teachers proceed to place numbers on reading assessment measures that may or may not represent valid evaluations of the reading process (Johnston, 1994).

Lest reality be obscured, it is with caution that attempts to measure reading be accepted as valid evaluations of the process. These attempts to assess reading ability provide a glimpse or a piece of the process, but they may not reveal the entirety of what goes on within the mind of a reader. Such attempts may show the failure to understand that the product is not the same as the process (Smith, 1982). In reading, the whole is greater than the sum of the parts.

Having revealed this caveat, I will address assessing reading with respect to models of reading. Models of reading provide structure to lay out components of the process. The three classic models of reading are the bottom-up, top-down, and interactive models. Bottom-up models exhibit text features as playing key roles of importance. Text-factors include letter-sound relationships, phonograms, and morphemes, and individual words. These text factors are often viewed as lower-level processing skills (Birch, 2002). Birch states that low level processing serves to the top. Language knowledge of sounds, letters, words, phrases, and sentences empowers readers to use their world knowledge of people, places, events, and activities to interpret meaning from text. Efficiency at the bottom enables engagement at the top.

Processing elements at the bottom needs to become automatic before readers focus attention on constructing meaning based on personal experience, or background knowledge (LaBerge & Samuels, 1974). Gough (1983) depicts a model that shows how text is processed from the time the eye first looks at the text to the time meaning is derived. It is linear in nature, going from the bottom-up process of decoding text to higher-level processing tasks that include knowledge of syntax and semantics.

The model of LaBerge and Samuels (1974) is also viewed as bottom-up. As previously mentioned, their model takes into account the importance of attention and allocation of resources to specific tasks. The primary and first tasks performed are text-based, not reader-based

(Samuels & Kamil, 1984). Reader-based tasks are described as entailing psycholinguistic (Goodman, 1970) or social linguistic (Bernhardt, 1991) processes. The background knowledge and experiences that readers bring to the task of reading are interpreted as components of top-down models.

Top-down models support the view that readers gain meaning based on what they have experienced. Readers apply their knowledge of the world and their knowledge of language to construct meaning. Psycholinguistic models portray reading as a *psycholinguistic guessing game* in which readers figure out what words, sentences, and entire selections of discourse mean in relation to what they already know (Goodman, 1970).

Rosenblatt (1995) advocates that meaning is not contained within the text, or the reader, but that it is a transaction that occurs between the reader and text. This transaction creates what she terms a *poem*. Bernhardt (1984) concurs by suggesting that reading is the process of relating what readers know to what is contained in the text. Her perspective of foreign language reading sketches a model of information processing that couples what readers have stored in memory to that which they acquire from text.

Rosenblatt (1995) and Bernhardt (1991) purport theories of reading that coincide with the interactive model. The interactive model of reading mirrors aspects of both bottom-up and top-down explanations. Researchers who prescribe interactive models are Rumelhardt (1977), Stanovich (1980), and Just and Carpenter (1987). They recognize the interaction of the lower- and higher-level processing tasks that transact. Birch (2002) agrees that both lower- and higher-level processes interact, but adds that determining which level of processing readers rely most heavily upon is specific to individual second language learners and difficult to predict.

Bernhardt (1991), known for her work in second language voices views that reading is

cognitive, as do LaBerge and Samuels (1974) and Just and Carpenter (1987); and also social, as do Goodman (1970) and Smith (1982). Reading is social because it occurs within a social context, as does language learning. Social context becomes a critical concern when the text students read differs from the context familiar to them, which can be a frequent occurrence for second language learners. Bernhardt voices concerns for second language learners as they are challenged by both bottom-up and top-down processing demands. The knowledge second language learners bring to the reading task represents knowledge specific to their culture and first language. This knowledge then is applied to the bottom-up and top-down processing demands of reading in the second language.

Before leaving the description of models of reading, another category of models related to reading needs to be presented. This category includes models of discourse processing. Meyer (1975) and van Dijk and Kintsch (1983) have been prominent in the field of discourse processing. They have designed models that depict text structures and ideas through propositional analyses. These propositions represent text-based factors relating to pragmatics, semantics, syntax, and morphemes. They illustrate higher levels of processing with respect to the text.

Bartlett (1932) studied the ideas and structures that readers recall and found that recalls were specific to individual experiences and knowledge brought to the task of reading and remembering. His research provides support for the view that interpretations and remembrance of texts are unique to each reader, and perhaps cannot be predetermined in the form of standardized tests that attempt to evaluate parts, in hope of attaining a measurement of the entire reading process. Components included in some of these tests represent similar entities exhibited in the reading models such as recognition and production of phonemes and phonological

graphemes, and comprehension of morphemes, words, sentences, and passages; yet these components of tests are relevant to assessing reading only to the degree they relate to experiences of the reader.

The models of reading summon an answer to the question: Which components of the reading process are being measured? Are they text-based factors such as letter and sound relationships? Or are they reader-based factors such as integrating new information to personal experiences?

Assessment

Models of reading provide a framework in which to construct the process of reading. The process of reading uses reader- and text-related components to construct meaning. Many forms of assessment exist to measure reader- and text-related factors. Fill-in-the blank, and similar forms such as the CLOZE procedure, multiple-choice tests, true-false items, free recall, prompted recalls, short answer, and written essay are a few of many tools used to test reading. A debate could be made for using writing to assess reading, but I will leave that as a topic for a separate paper. The aim of this writing is to focus on DRAs as a valid and reliable reading assessment of ELLs (English Language Learners), but before describing the DRA, I want to address using questions for assessing reading.

Johnston (1984) explains that questions can be reader- or text-based items. He warns that questions of any level merely tap the level of knowledge or skill being evaluated. Questions may be asked at literal, inferential, or applied levels of thinking. Questions may be asked on any innumerable domains of knowledge. The concern, however, is if students are asked to read aloud, are they being tested on decoding or comprehension skills? Students do not need to read out loud for teachers to evaluate comprehension. Are the questions used to assess comprehension

evaluating how well students understood the content? Or are the questions testing how much students already knew about a topic? Tuinman (1973) cautions that some questions require information not in the text, or which can be answered independent of the text, which can create even greater discrepancies for second language learners in comparison to first language readers.

Caveats of questioning extend to test items other than questions. It includes using the format of multiple choice or true and false statements. The format is second to the content. *What is being asked?* is what teachers need to examine in light of what Johnston (1984) reminds.

The focus of assessment needs to be on validity of the task, the knowledge or skills intended to measure. If letter-sound relationships are the concern, which represent a bottom-up task, then reading word families or nonsense words may show this skill. If fluency is the aim, then oral reading of whole texts, at least a couple sentences should be performed. If comprehension is the goal, the intrusion of oral reading performance should not be required in addition to the task of interpreting the text. Questions may be asked at any level of comprehension: literal, inferential, or applied. Questions can, however, tap knowledge of what the reader already knew before reading the text. They can also provide prompts or clues to meaning that the student did not acquire from reading. The point is that an assessment tool should be selected and interpreted based on the aspect of reading behavior being measured.

Developmental Reading Assessment (DRA)

For the purpose of this study I chose to use the Developmental Reading Assessment (DRA) (Beaver, 2004). The DRA is reportedly used in more than 300,000 classrooms in the United States. I chose to use the DRA because of the requirement of teachers to use the DRA to assess reading ability. The DRA is used to supplement assessment data school districts receive through state mandated tests.

The DRA can be compared to an Information Reading Inventory (IRI). Numerous authors have created versions of IRIs in the past 35 years (Flynt & Cooter, 2004; Leslie & Caldwell, 1990; Woods & Moe, 1989; Silvaroli, 1994). Administering an IRI or a DRA is similar in that students are asked to read a text passage and respond to comprehension questions. Recent versions of the IRI include having students retell the passage read prior to answering questions, as does the DRA. Another component of both the IRI and the DRA includes marking errors as students read the text orally. Goodman (1970) is known for terming oral reading errors as *miscues*. IRIs and the DRA both use the oral reading component of the test, or a *running record* as it is sometimes called, to identify miscues. Analyzing these oral reading errors allows examiners to determine strengths and weaknesses of student reading ability as it relates to lower- and higher-level processing skills. Lower-level processing skills include applying knowledge of letter and sound relationships, or visual cues. Higher-level processing skills include extrapolating meaning from text.

A major difference between an IRI and the DRA is the graded leveling that the DRA provides. An IRI provides scores that equate the student reading ability to a grade-level: 1st, 2nd, 3rd, and so on. Sometimes a pre-primer or primer level is included. The DRA provides numerous levels per grade level. For example, Levels A-4 are classified as kindergarten. Levels 5 to 18 are considered first grade. Levels 20-28 are third grade. The texts that students read are leveled. Levels contained in the DRA are as follows: A, 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 28, 30, 34, 38, 40, 44, so that increments for kindergarten are by 1, for first grade, by 2, for second and third grade by 4. Levels 40 and 44 are considered fourth grade. There is a DRA kit for grades K-3 and for 4-8.

School districts are required to show that students are succeeding and achieving gains in

reading. Test scores do this. The DRA is a test designed to spotlight improvement in reading ability, albeit too diminutive to show up on grade-level-only scoring instruments such as an IRI or a performance-based or norm-referenced test such as the Gates-MacGinitie (2002). The DRA has become popular within public schools, because it appears to show miniscule gains.

The Developmental Reading Assessment (DRA) is a reading evaluation tool that claims to *drive* instruction (Beaver, 2004). The DRA has the capacity to help teachers determine student strengths and weaknesses in reading at the lower-level and higher-level aspects of reading. The lower-level skills are assessed by having students orally read a selected text. The oral reading performance is analyzed for fluency and accuracy. The higher-level aspects of reading are tested by having students tell what they read. They may also do this in writing, thereby providing a written recall; however, for some students this limits the amount of content they recall and report. The DRA also provides questions to test comprehension. The questions are asked to elicit responses that reveal what students understood, or did not understand, from their reading. Narrative and expository text types are provided at the higher levels of the DRA, but not for the kindergarten through third-grade levels that were used in this study.

The challenge in using DRA to determine reading ability for ESL students relates to how the assessment is administered and the scores are interpreted. Many teachers test students to determine their oral reading fluency scores and then discontinue the assessment without having determined comprehension levels for oral reading and silent reading, and for both narrative and expository texts. Also, some teachers discontinue the assessment at a level they think is too difficult but which may not be. For ESL students, the problem may be that they lack knowledge of the language or content specific to the text being asked to read.

Recall Protocols

Recall protocols are a procedure used to measure and analyze understanding and memory of text. Numerous representations have been made to show the content readers recall. Taylor (1980, 1982) used the term *idea-units* in her studies to label the content readers recalled. Idea units have been used in other research examining the content of text recalled (Berkowitz, 1986; McGee, 1982). Numerous systems exist to score recall protocols. Meyer (1975, 1977) and van Dijk & Kintsch (1983) are known for their extensive hierarchical elaborations based on propositions and rhetorical structure. Bernhardt (1983) devised a scoring instrument using constituent structures to analyze recalls. Her procedure parsed text by noun, verb, and prepositional phrases. Johnson (1973) used a system that divided text into pausal units to exhibit hierarchy. Mabbott (1995) used a procedure similar to that of Johnson without noting hierarchy.

Voss and Bisanz (1985) contend that there is no standardized procedure for scoring recalls. Researchers have not yet reached a consensus, either because of the definition or the term. For this reason, content units, or c-units, were used in this study and defined as *content distinct enough to be counted*. They are similar to idea-units. The ideas delineated as c-units were listed on a checklist as a format to tally text content that a student recalled. Showing ideas parsed from a text provided a way to analyze and score the content recalled after orally or silently reading the text. One of the issues with using DRAs to measure reading is that students are to recall text after reading it orally, which appears to conflict with reading as a performance to that of reading to understand.

Recall protocols provide an alternative way to assess and analyze reading comprehension. They provide additional data to contrast to that of oral miscues on oral reading test. For example, recalls can show if students recognized embedded organizational structures of the texts that were read. Recalls can also make known student knowledge of syntax.

Fanselow (1987) suggests that practitioners have students read real text, because reading is reading real text, not texts written to assess reading, which the DRA texts are. It is not answering questions about reading. She claims that if a reading test is to be valid, it must require reading a text that a reader might read anyway, not one synthetically composed to obtain a standardized norm, but texts that are authentic and of interest to a reader.

The DRA includes text booklets written for the purpose of assessing reading, yet claimed to be similar to texts students would read as part of a reading curriculum. The need to improve the writing of many of these texts is apparent, but at onset they appear to provide real reading, not passages on a worksheet. A question, however, relates to content. Is the content appropriate for ESL students? Do they have the language skills that native English speakers would have to identify and understand the stories? This is a question I will return to later in the paper.

Reading in a Second Language

Assessment of the reading in a second language must consider background knowledge, interest, and the ability to integrate these components with individual text processing abilities (Baldwin, Peleg-Bruckner, & McClintock, 1985). Reading is an individual task, for first and second language readers.

Allen and Valette (1979) stand strong in promoting their views about teaching English as a foreign language. They contend that reading is comprehending what is written. It is not attaching foreign language sounds to written text.

Goodman (1981) concedes that accuracy in reading is neither necessary or normal for reading to occur. In his article on learning to read in a different language he writes that the miscues readers make reflect the process of making meaning. Clarke (1988) summarizes her research to support the claim that reading is not an exact process that depends on accuracy at all

levels of language. She promotes the view that the role of language proficiency may be greater than assumed. She explains that limited control over a second language *short circuits* the ability to use good reading strategies when faced with challenging text in a second language.

Chastain (1988) discusses how to develop second-language skills. He emphasizes what researchers explain of first language speakers. The goal of reading is meaning. It is a process. Readers use their knowledge and language skills to create the intended meaning of the writer. If readers do not comprehend, they are not reading. Chastain is specific. He warns that reading done to improve pronunciation, practice grammar, or improve vocabulary is not reading. Reading is comprehending.

Chastain (1988) continues his argument for developing second-language skills. The purpose of reading is meaning, as it is with the language skills of listening, speaking, and writing. The goal is communication. The writer uses her knowledge of the world to compose a message for a reader. The reader uses her knowledge of the world to recreate the possibilities of the writer's intended message, creating as Rosenblatt (1995) so eloquently said it: the *poem*.

Blau (1982) cautions that making the syntax simple for ESL students does not equate in making text easier for them to understand. Blau found that lower readability level material does not make the reading task easier. Sentence structure used to create supposedly easier text can result in synthetic texts that are harder to understand. ESL students need whole, authentic texts.

Hudelson (1984) reports that a lack of familiarity with a foreign culture affects comprehension. She found in her study that ESL readers recall more from a text based on their own culture than they do from a text based on a foreign culture. Again, background knowledge and the development of language skills to express understanding are important factors to consider in assessing reading.

Carrell & Eisterhold (1983) explain that the organizational structures of text affect the reading comprehension of ELLs. Their study supports the view that the knowledge ESL students have of text organization, that being the organization of paragraphs, of main points within paragraphs, and of whole discourse, influences how well they understand what they read.

Reading orally and obtaining a fluency score does not equate to measuring reading ability of ESL students. Reading involves more than a fluent and accurate oral rendition. Reading is applying knowledge of linguistics at all levels, from phonemes to discourse structures, to acquire meaning from text. Assessments used to measure reading ability need to be able to determine student comprehension of text. Do DRAs do this?

Rivers (1981) suggests a sequence for teaching foreign language skills that focuses first on bottom-up skills. These skills include conventions of print and the phonemes of the new language and their graphic representations. These can be termed *visual cues*. Rivers then advises helping students develop their oral language and using it to understand concepts contained in text. Teaching comprehension strategies is encouraged. Finally, practice and more practice. Of course, interest is key.

In sum, reading in a second language involves both text and knowledge sources. Both of which integrate throughout the process of making meaning. Both of which are drawn upon according to individual needs, purposes, and abilities.

Conclusion

Oral reading fluency is an aspect of reading proficiency, but it does not necessarily equate to comprehending text, particularly for ESL students. Automaticity is critical for students to release attention from lower-level processing skills to focus on higher-level skills, which then allows them to understand and integrate the text to what they know. Models of

reading depict the process of reading and provide ways of examining and identifying components of the process that are used for assessment. Studies and views of researchers suggest that DRA scores that show levels of reading ability based on oral reading fluency may not provide adequate assessment of reading comprehension. Student scores of reading ability need to show how well they understand what they read, not merely their ability to read fluently.

In the next chapter, Chapter Three, I describe the study that I conducted. I explain the procedures used to obtain data to answer the research question: Do DRA scores adequately measure the reading levels of ESL student?

CHAPTER 3: METHOD

The methodology I describe in this chapter provides a framework for obtaining data. The data I collected is evaluated with respect to quantitative and qualitative perspectives. A synthesis of the findings provides a response to the research question: Do DRA scores adequately measure the reading levels of ESL students?

Design

The design for this study focuses on case studies. A case study is a type of social science research that provides a way to look at data in relation to a single individual, or case. I drew upon the views of Yin (1989) who promotes the strength of using case studies to collect data. Yin states that case studies are useful to investigate phenomena within real life contexts. Case studies are appropriate when multiple sources of evidence are used, as in this study. Oral miscues, oral retellings, and responses to comprehension questions from individual student cases were analyzed. Ten questions related to English language experience were asked. The purpose for asking these questions was to gain information regarding the extent of English language exposure of each student.

Spiro, Vispoel, Schmitz, Samarapungavan, & Boerger (1987) contend that explaining data within individual cases is effective for providing knowledge of certain domains, of which Jiménez, García, and Pearson (1995) claim second language reading is one. They used case studies to describe and understand the reading processes and strategies that three sixth-grade students used when reading first and second language narrative and expository texts. Their qualitative analyses provided well-documented information on individual readers. They support

the view that detailed, in-depth information about individual cases is necessary for the development of general principles regarding students learning to read in a second language.

Subjects

Subjects participating in the study were six students between the ages of 8 and 12 attending the extended year summer school program in suburban school district south of Minneapolis, Minnesota. The purpose of the extended year academic program was to provide instruction for students within the school district who would benefit from additional support. Subjects who participated in the study were in a sheltered class for ESL students.

I obtained permission from the district area learning center administrator to give the Developmental Reading Assessments (DRAs) to ESL students attending the summer school program. The agreement was for six students to participate, each for an approximate time of 20 to 50 minutes.

A letter was sent home to parents explaining the purpose of the study. Parents signed a letter giving permission for their son or daughter to participate. Permission from the parents was received prior to conducting the study. The school district and Hamline University human subjects guidelines were followed.

Procedure

Materials

Materials used for collecting data were the Developmental Reading Assessment (DRA) and a short interview questionnaire consisting of ten questions. I chose these two assessments based on what teachers typically do in elementary schools. They give the DRA and then ask the ESL student questions similar to those in this short questionnaire: How long has the student been in the country? What country is the student from? What language is spoken at home? How long

has the student been learning English? Answers to such questions help explain why performance of particular ESL students often appears at a lower level than other students in the class.

The teacher of the sheltered ESL class provided me with reading scores of the six students based the San Diego Quick Assessment. The San Diego Quick Reading Assessment is based on correlating student reading ability with the ability to recognize words in leveled lists. Students are directed to read ten words in a graded list. The lowest level at which the student misses three or more errors marks the frustration level. Two errors is the instructional level, and one or none is the independent level.

The San Diego Quick Assessment was not part of the study. I knew that reading words from a list did not equate to comprehending text, which is what I perceive reading to be; nonetheless, I used the scores to provide a range in which to select the texts to have students begin reading for the DRA.

Developmental Reading Assessment (DRA)

The procedure for administering the DRA is to select an appropriate text for the student to read. Students read the text orally, and then retell what they remember. Questions are provided for teachers to ask following the retelling. For the lower level texts, there are only two questions, one of which is about the characters.

I selected a text from the DRA for the student to read. Before each reading I told students to read so that they could tell me what it was about. I did not use the term *story*, because some of the texts are not stories. Some of the texts are as lists of ideas. Others are a description of events or characters.

Students were tested individually in a quiet room down the hall from their regular classroom. As each student orally read the text, I discreetly recorded miscues. Students could not

see me marking a text, because of the way I held the observation sheet on my clipboard. Miscues I noted include mispronunciation, substitution, insertion, repetition, omission, and teacher assistance. At a later time I listened to the audio file of each reading. For most of the readings, I listened two or three times to make sure I accurately heard and noted the miscues.

I asked students to read the first text out loud. The second text the student read was done silently. I alternated between having the student read aloud and silently. For a couple of the students, it did not make a difference whether I told them to read it silently or orally. They continued to read orally, even though I asked them two or three times and modeled how to read silently. They said they understood about reading silently, but they chose to read aloud.

The pattern alternating between reading aloud and reading silently continued for the four to seven texts students read. I stopped the assessment based on the time constraint and the attention of the student.

No text was read twice. At a later time I analyzed the retellings for content units. I defined content units as *units of content distinct enough to be counted*. Content units parsed in the texts ranged from 2.5 to 3.9 words per unit. No differentiation was made as to the level of idea when analyzing content units. However, I felt that students were not being evaluated fairly if only the number of content units were scored. I wanted more information about what I thought they comprehended.

I evaluated each retelling based on the comprehension rubric provided in the DRA. Although the rubric appears to elicit subjective data because it uses no absolute quantitative measure to gauge scores, and instead uses holistic descriptors, it does provide another perspective as to the comprehension abilities of students. I used it as a second measure of comprehension for the student recalls.

The comprehension rubric of the DRA categorizes comprehension into four categories: *very good comprehension*, *adequate comprehension*, *some comprehension*, and *very little comprehension*. The *very good comprehension* is described as beyond the independent level. *Adequate comprehension* equates to independent level. *Some comprehension* is the instructional level, and *very little comprehension* is the frustration level. The rubric of 1, 2, 3, 4 is used across the matrix. Areas of comprehension are retelling facts, including details, referring to characters, responding correctly, providing response to teacher prompts or questions, and number of prompts required.

I used the classifications of *adequate comprehension*, *some comprehension*, and *very little comprehension* descriptions to label student retellings as *independent*, *instructional*, and *frustration* levels of comprehension. With even this information, I continued to think that I was not identifying student comprehension as completely as possible. I continued to massage the data, determined to identify more of what the student recalls revealed.

I decided to segment the actual texts. I labeled these *Beginning*, *Middle*, and *End*. The lower level texts, Levels 2 and 3 did not include these, but I did identify gist units, which represented main points within the text. Within the segments of *Beginning*, *Middle*, and *End*, I identified *gist units*. Number of *gist units* for the texts students read ranged from 7 to 12, the average being 8. Most of the texts had 1 or 2 gist statements in the *Beginning*, 1 or 2 gist statements in the *End*, and the remainder in the *Middle*. Recording *gist units* or *g-units* provided third measure of comprehension for the student recalls.

I noted the discourse types included in the leveled texts that make up the DRA. These discourse types reflect the top-level structures, or lack of such structures. These discourse types can be used to couple discourse analysis included in the pragmatic level of linguistics

(Tserdanelis & Wong, 2004). Discourse types contained in the DRA texts include simple listing and description. Some of the DRA texts include the top-level structures of problem-solution and compare-contrast. Cause and effect could have been used, but the problem-solution was appropriate, and one I felt might be interpreted more strongly because it supports the story grammar of narrative discourse. The top-level structures of problem-solution, compare-contrast, and cause-effect are depicted in the propositional analyses of Meyer (1975).

I analyzed the DRA texts using the top-level frame of discourse analysis to determine what I call *Discourse Structure Units* (ds-units). Here is where I found what I had been intuitively seeking. I describe my finding in Chapter 4: Results. DS-units provide the fourth measure of comprehension for the student recalls. For each of these four analyses, I evaluated retellings using levels of independent, instructional, and frustration. Number of units, as well as percentages, are provided for each of the four measures except the DRA rubric. I chose not to create a different rubric, but to pull items from the DRA rubric and identify independent, instructional, and frustration levels based on descriptions in the DRA rubric.

So to summarize thus far, for this study I analyzed student recalls using four comprehension measures: the number of content units (c-units) recalled, the DRA holistic rubric, the number of gist units (g-units) recalled, and the number of discourse structure (ds-units) recalled.

The focus of the reading was on comprehension. The DRA, however, is most frequently cited for oral reading fluency. As I mentioned, I assessed oral reading by marking miscues as students read and then listening to each reading two to three additional times so as to be accurate and fair in my scoring. I used these scores to determine the number of miscues. Number of miscues were subtracted from number of words in the passage. Number of words read correctly

were divided by total number of words in the passages to provide a percentage score. These scores were used to determine *independent*, *instructional*, and *frustration* levels for oral reading.

Standard and classic increments in reading literature note the independent level as 99% word recognition accuracy and 90% comprehension. Instructional level is 95% or better word recognition accuracy and 75% or higher comprehension. Frustration level is 90% word recognition accuracy and below 75% comprehension. (Silvaroli & Wheelock, 1975; Allington, 1984)

Allington (1984) notes that few empirically supported guidelines are provided for identifying which levels of text difficulty are most facilitative for learning to read. Despite the unleveraged standards, variances of 67% to 95% for first grade, 88% to 95% for third grade, and 91% to 95% for fifth have been documented as instructional levels for first language students. Because the focus of this study is on second language learners, I changed the percentages to reflect my decision-making process as a professional educator. These percentages are shown in Chapter Four of this paper.

I noted the miscues. I identified errors of mispronunciation, substitution, insertion, omission, and teacher assistance. I classified these five error types into the linguistic level that each represented. The linguistic levels I used were *Visual*, *Syntax*, and *Meaning*. *Visual* represent errors based on the graphophonic knowledge, or letter and sound relationships that students used to identify the word. *Syntax* reflects sentence grammar, which includes word usage and tenses. *Meaning* relates to comprehending the text.

I decided that errors that significantly affected meaning were *significant* errors. The other errors were *not significant* or *insignificant*. Both *significant* and *insignificant* could be viewed as *language* errors. *Language* errors acknowledge possible reasons for the miscue.

The classification of *significant* and *insignificant* allowed me to provide scores for oral reading. It also explained why students could comprehend text that based on oral reading scores would have been scored as too difficult to understand.

Finally, the reading rate was determined for texts students read orally. The amount of time required to read each text provided a words-per-minute score for fluency.

Interview

After completing the DRA, I asked the student ten questions. Answers to these questions gave additional information concerning exposure to learning the English language and reading in English. The following questions were asked: How long have you been in the United States? Where were you born here? How long have you been learning English? What other language do you speak? How old are you? What grade are you in? Do you read in English at home? Do you read in your first language at home? What would you like to tell me about learning to read in English? Comments to each of these questions are provided in the next chapter.

Summary

This present research study was done to obtain information about using Developmental Reading Assessments (DRAs) with English Language Learners (ELLs). Six subjects were administered DRAs. These subjects were elementary school age children. Each student was interviewed using ten questions, which would provide insight into their learning of English and learning to read in English. Data obtained was evaluated and synthesized using qualitative and quantitative methods. Oral reading fluency and comprehension performance was contrasted individually and collectively for the six case studies to determine an answer to the research question: Do DRA scores adequately measure the reading levels of ESL students?

In the next chapter on results I report what I found. I provide the results of the study to

answer to the research question: Do DRA scores adequately measure the reading levels of ESL students?

CHAPTER 4: RESULTS

Data collected for this study supports an answer to the research question. First, I want to answer the question based on the quantitative data that I analyzed from the six students as a group. Next, I will answer the question based on data interpreted through individual analyses. I will use quantitative and qualitative findings to support my responses to the research question: Do DRA scores adequately measure the reading levels of ESL students?

Data Analyses

Interview

Table 4.1 and Table 4.2 provide an overview of responses to the interview questions I asked each student and data I received from ESL teachers who had previously worked with the students.

Table 4.1 shows the age, grade, place of birth, and time spent in the United States. Table 4.1 also shows the San Diego Quick Assessment (*SDQA*) score administered as part of the summer school program.

Table 4.1

Subject Interview: Background Data

ID	Age	Grade	Place of Birth	Time in USA	SDQA
Araceli	8	3	Mexico	4 months	Primer
Dulce	12	5	Mexico	10 months	1
Lae	12	5	Laos	9 months	Pre-primer
Marisol	11	5	Mexico	9 months	1
Ali	10	4	Somalia	32 months	1
Robert	8	2	USA	8 years	Primer

The teacher of the ESL summer school class administered the SDQA two weeks prior to the date I administered the DRAs for this study.

Table 4.2 contains responses to questions relating to the exposure of each student learning English and reading in English.

Table 4.2

Subject Interview: Language and Reading Background Data

Student	Learning English	Learning to Read	Read at Home	Languages Spoken	Read in other language
Araceli	4 months	4 months	Yes	Spanish	Mother reads to her.
Dulce	10 months	10 months	Yes	Spanish	She reads in Spanish.
Lae	9+ months	9 months	Sometimes	Lao	<i>A little. I forgot.</i>
Marisol	9 months	9 months	Yes	Spanish	Mother reads to her.
Ali	32 months	26 month	Yes	Somali	No
Robert	3 years	3 years	Yes	Russian	Mother reads to him.

Four of the six students had been in the United States for less than a year. One of the students was born in the United States, but did not start learning English until he entered kindergarten.

Table 4.3 shows the most recent tests given to students prior to the summer school session. The tests include the MN-SOLOM, IPT Reading, and IPT Writing.

Table 4.3

Subject Baseline Testing Data

ID	MN-SOLOM Date	MN- SOLOM	IPT Reading Date	IPT Reading	IPT Writing Date	IPT Writing
Araceli	04/07	NES	04/07	NER	04/07	NEW
Dulce	04/07	NES	04/07	NER	04/07	LEW
Lae	04/07	NES	04/07	NER	04/07	NEW
Marisol	04/07	NES	04/07	NER	04/07	NEW
Ali	05/07	LES	05/07	NER	04/07	LEW
Robert	04/07	FES	04/07	NER	04/07	NEW

Students within the school district represented in this study are tested toward the end of the school year. For the MN-SOLOM, NES is the score given to students scoring within the category of Non-English Speaker; LES is the score given to Limited English Speaker; FES refers to Fluent English Speaker. For the IPT Reading test, NER is the classification given for Non-English Reader. For the IPT Writing test, NEW refers to Non-English Writer; LEW is Limited English writer. The scores in Table 4.3 were collected to provide a baseline measure for individual student performance in this study. The scores were not made available until after the study had been conducted. Had I had access to these scores prior to administering the DRAs, I would have started the DRAs at a lower level. However, with the time constraint, I might not have observed the higher levels at which the students comprehended the discourse structure of texts.

Development Reading Assessment (DRA)

I recorded the number of miscues while each student read the selected texts. At a later

time I computed the scores. The assigned scores are based on criteria included in the DRA.

When I studied the oral reading scores I decided to categorize the miscues according to significant and insignificant word recognition errors. The errors I marked were mispronunciation, substitution, insertion, omission, and teacher assisted. Any of these errors could be classified as significant or insignificant. What determined if I identified them as significant was whether I felt the meaning was changed drastically enough to alter significant understanding of the text. If I thought that the student could understand the main ideas of the text despite the miscue, I marked it as insignificant. The following are explanations of how I labeled errors.

Mispronunciation for second language learners many times is not significant, because the change in pronunciation does not change the meaning the student interprets. However, if the mispronunciation does trigger a different meaning, then the mispronunciation is significant.

Substitution is when the student substitutes one word for another. A substitution error is significant if it changes the meaning of the text. Saying that the *girl* tricked the little boy, instead of saying the *giant* tricked the boy is significant. Saying an *a* instead of a *the* is not significant. Saying *boy* for *girl* might be significant, but then it could be insignificant. If the text is describing what a boy's brothers and sisters do with a wagon, does it really matter what the brother, or the boy, does in contrast to what the sister, or girl does, especially if listing descriptions of how these siblings use the wagon does not directly relate to the problem or solution of the story.

Substitution errors can also included reversals. For example, substituting *saw* for *was* is common among younger children learning to read English, particularly among children for whom English is their first language.

Insertion is an error in which the student reads a word that is not part of the text. Inserting a *the* is not significant. Inserting a *not* is significant.

An omission is when the reader omits a word or part of the word. Frequent omissions can be considered significant. Infrequent omissions are not significant, unless the omission changes the meaning of the text. For example if the reader leaves out the word *not*, as in *Robert did not like his baby sister* the meaning is different from *Robert did like his baby sister* so this example of an omission error is significant.

Teacher assisted (TA) is usually a significant error. I did not provide assistance unless I thought the crux of the text would be undermined if I did not. For example, in the story of the giant, I pronounced the word for the student, and then asked if she knew what a giant was. She said she did, "It is huge man." If a student paused and seemed to be waiting for assistance, I would say, "Look at your letters," or "How do you think it sounds?" Most times the student made an attempt to call out the word. I wanted to observe what word-attack skills the student used. I wanted to note any comprehension strategies the student employed as in rereading or skipping ahead and using context to identify the word.

Repeating a word or phrase is not considered significant. Usually a student repeats a word or phrase to gain momentum or time in decoding what follows. A student may also repeat as a self-monitoring strategy for comprehension. Hence, sometimes repeating is good because it signals a student applying metacognitive skills. I noted repeating on the text I marked, but did not count repeating as an error.

An additional category I used to mark miscues was *language error*. A language error could be significant or insignificant. If the student dropped the ending as in pronouncing *cried* as *cry*, it was not marked as significant when changing the verb from past tense to present did not

make a notable difference in understanding the gist of the text. If however, the student pronounced *behind* as *ben*, which was the boy's name in the story, the miscue was counted as significant.

In sum, each miscue was given three labels: one label marked the miscue as a mispronunciation, substitution, insertion, omission, or TA error. A second label noted whether it was significant or not. A third marked it as a language error. Because of my knowledge of Spanish, I was competent in doing this for students whose first language was Spanish. For the students whose first language was Lao, Somali, or Russian, the markings may not be as complete, though I did seek input from another ESL teacher. Marking the errors as language errors provided insight as to whether they were significant or not, and whether they negatively affected comprehension.

Two accuracy scores were figured: one for total miscues, and one for significant miscues. I found that that using total miscues is not an adequate measure of reading ability of ESL students. Even the percentages based on significant errors do not fit the classic categories of independent, instructional, and frustration. ESL students can make many more errors than 6 out of 100 words, or 94% or less, for the independent level. The DRA manual states that 94% to 100% accuracy is the needed for students to read material at the independent level. The range of 93% to 90% is too high a cut-off point for the instructional level. An 89% accuracy score does not seem to signify a frustration level. The results from this study show that ESL students can read at accuracy levels of less than 50% and still achieve 100% comprehension using gist units and discourse structure units to gauge comprehension.

The range of levels from oral reading to comprehension represents too broad a range in scores. Table 4.4 shows the oral reading and comprehension text levels of the students and the

range of levels and increments between these oral reading and comprehension levels.

Table 4.4

Oral Reading and Comprehension Levels

ID	Oral Reading	Comprehension	Range of Levels	Range of Increments
Araceli	6	14+	8+	5+
Dulce	- 12	28+	16+	6+
Lae	3	4+	2+	2+
Marisol	2	14+	12+	7+
Ali	- 4	12	8+	5+
Robert	6	6	0	0

Table 4.4 includes the independent through instructional reading levels for oral reading and comprehension. The independent level is the level students can be expected to read by themselves. The instructional level is the level at which they need some assistance, or instruction, to enable them to read the text. A minus (-) next to the number means that the independent level is possibly lower than the number shown but a definite score was not determined. A plus (+) means that the instructional level may be higher than the number shown, but again the level was not determined. The range of levels shows how many levels are between the ones presented. The range of increments shows the number of testing levels the DRA provides.

Levels 2, 3, and 4 are for kindergarten. Levels 4 through 16 are considered first grade. Levels 18 to 28 are second grade. Three school districts I have worked in have expected students to read independently or instructionally at these stated levels for first and second grade.

Findings show that precise reading scores were not determined for five of the six students, and yet numerous DRA texts were used within the time allotted. The large variance in

possible scores suggests that DRA scores do not adequately assess reading abilities for ESL students. More evidence is provided to support this view as I continue this chapter on results.

Figure 4.1 is a graph for the data included in Table 4.4.

Figure 4.1

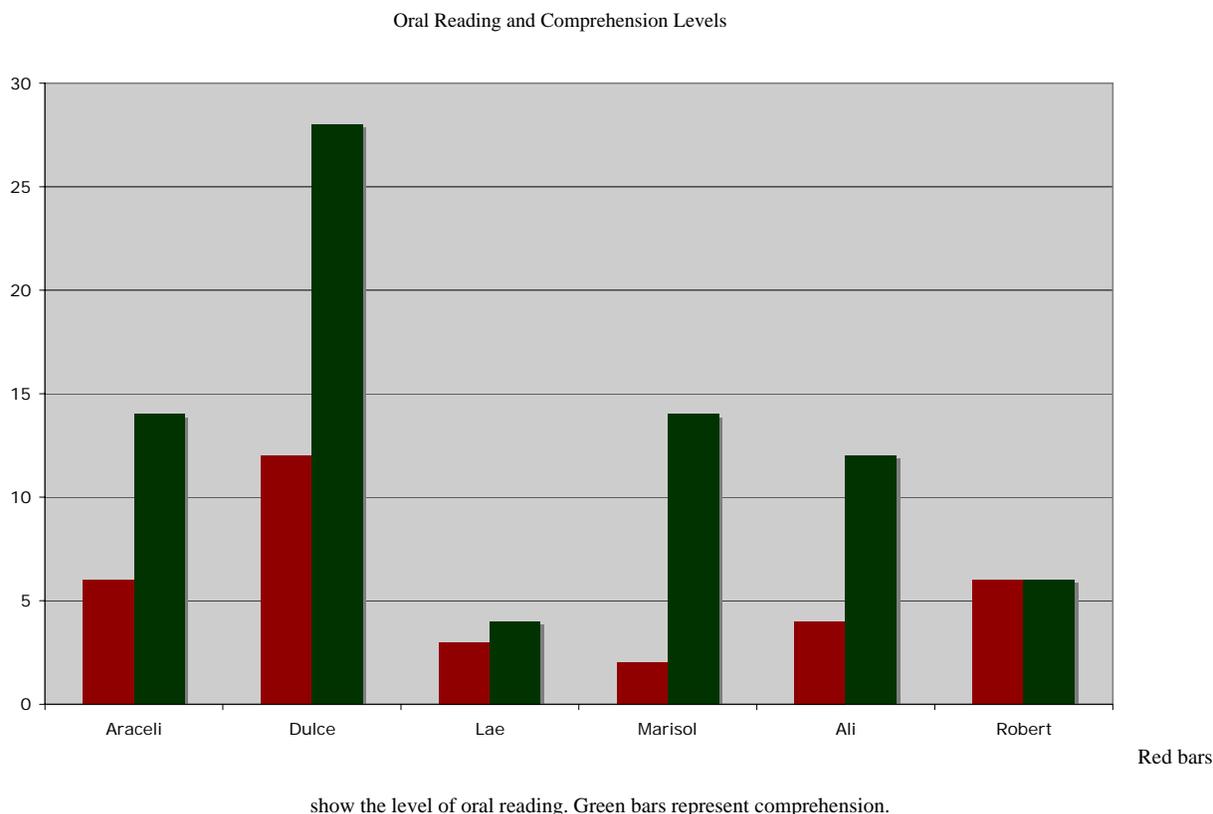
Oral Reading and Comprehension Levels

Figure 4.1 does not take into account the scores on Table 4.4 that showed a minus (-), which is to be interpreted as the number would be less than what is shown, but how far less was not determined; nor, does Figure 4.1 account for scores on Table 4.4 that showed a plus (+), which is to be interpreted as the number would be higher than what is shown, but how much higher is not known.

Figure 4.1 reveals an interesting finding. For all but one of the students, the comprehension score was higher than the oral reading score. The student for whom the comprehension score was not higher was classified as a Fluent English speaker (FES) according to the MN-SOLOM, as previously presented in Table 4.3. He was the only one of the six students classified as FES. Each of the other five students was classified as a Non-English

Speaker (NES) or a Limited English Speaker (LES). Again, see Table 4.3.

Table 4.5 shows the range of independent and instructional levels for comprehension. The standard increment of 90% to 100% was used to determine the independent level for comprehension; 75% to 89% was used to determine the instructional level for comprehension. A plus (+) means that the instructional level is higher than the number shown, but again the level was not determined. The Table 4.5 shows that a wide span exists between the independent and instructional levels of student comprehension.

Table 4.5

Independent and Instructional Levels of Comprehension

ID	Independent Comprehension	Instructional Comprehension	Range of Levels	Range of Increments
Araceli	4	14+	10+	5+
Dulce	12	28+	16+	6+
Lae	3	4+	1+	1+
Marisol	4	14+	10+	5+
Ali	8	14	4	2
Robert	3	6	2	2

For four of the six students, the instructional level was not determined. The ceiling was not reached. This is noted by the + sign. For Araceli the independent comprehension level is 4. Her instructional comprehension level is higher than 14. She possibly can comprehend texts in second grade, but her independent level is noted as kindergarten. A question to ask is *Will this child be interested in reading kindergarten books?* How will she feel when the teacher places kindergarten books in her book basket when her third-grade peers are reading books at the third-grade level or higher? Will this professional decision based on her DRA scores motivate her to *want* to read?

I am going to continue this paper by looking at the individual case studies. Findings are provided for each of the six students who participated in the study.

Case Studies

Araceli

Araceli was eight years old and had finished third grade. She was from Mexico and had attended school in the United States for four months. Her San Diego Quick Assessment score was primer, which is considered within the first half of first grade. I started the DRA assessment with her using level 10, which is average level for middle of first grade. Araceli read the text in long and short phrases. She did not read word-by-word. At the end she used appropriate expression to explain, *Oh, no!* She appeared to understand what she was reading. When she started to tell me what she had read, she struggled. It was as if she knew, but could not say.

The text for level 10 does not contain a strong narrative structure. It is a list describing what the characters did with a box. I decided to have her read a higher leveled text. Araceli read level 12 at a higher comprehension proficiency level than level 10. I had her read level 14 and then dropped back to levels 8, 6, and 4. At level 4 she was still not reading at an independent level as gauged by the DRA criteria of 94% or higher for oral reading.

I stopped the assessment with Araceli. I perceived the problem was language, not reading. She had read six leveled texts and the DRA assessment was unable to adequately show reading proficiency levels for oral reading or comprehension.

Table 4.6 contrasts the independent, instructional, and frustration levels for oral reading using significant errors versus total errors. The cells that display ND indicate that the level was not determined. The DRA was unable to provide adequate data with the texts used and the

constraints of time and student attention. Distinct reading proficiency levels were not determined for Araceli.

Table 4.6

Araceli: Oral Reading Levels

Reading Level	Oral Reading Significant Errors	Oral Reading Total Errors
Independent	14+	ND
Instructional	ND	ND
Frustration	ND	Below 6

Araceli obtained an oral reading score of possibly higher than 14 if only significant errors are considered. If all errors are considered, then the independent level would be less than 6. The score was not determined. It could be level 4, 3, or 2. This is kindergarten. Araceli enters fourth grade in two months. What student wants to read kindergarten books in the fourth grade? Maybe looking at pictures will help develop concepts for language, but to stifle reading instruction at this level does not seem fair or appropriate.

Table 4.7 includes information from Table 4.6 and shows the number of errors and percentages for insignificant errors and significant errors. Table 4.7 also gives the reading level assigned to each DRA level of text Araceli read.

Table 4.7

Araceli: Insignificant and Significant Errors

DRA Level	Insignificant Errors	Total Errors %	Significant Errors	Significant Errors %	Total Errors	Significant Errors
					Reading Level	Reading Level
6	15	75%	3	96%	Frustration	Independent
10	17	87%	1	99%	Frustration	Independent
14	27	86%	2	99%	Frustration	Independent

The reading level for Araceli is independent at level 14 if only significant errors are considered. An example of a significant error that Araceli made is reading *hit* instead of *her*. If insignificant errors are used to compute the score, Araceli is at the frustration level, even at Level 6. An example of an insignificant error that Araceli made was reading *when* for *then*. Table 4.7 shows that independent and instructional levels were not determined for Araceli using total errors.

Table 4.8 shows the total number of language errors that Araceli made at each level and how many of these are significant. Table 4.8 also contrasts the number of language errors that are significant to the total errors that are significant. The total errors that are significant is contrasted to the total errors not significant and to the total errors at each level.

Table 4.8

Araceli: Language Errors

Level	Total Errors:	Language Errors:	Total Errors:	Total Errors:	Total
	Language	Significant	Significant	Not Significant	Errors
6	16	2	3	15	18
10	18	1	1	17	18
14	25	2	2	27	29

Examples of language errors are orally reading *say* for *said*, pronouncing a lax vowel sound in front of *stop*, or reading *looked* as having two syllables by giving the inflection a vowel sound. None of these examples of language errors are significant errors that change the meaning enough to be considered important. However, using the DRA criteria, each would be an error computed to determine the oral reading fluency score. Table 4.8 shows that Araceli made only two language errors that were significant at level 14. This is quite a contrast from the 29 total errors and 25 language errors that were not significant at level 14.

The miscues marked for oral reading and their classifications are shown in Table 4.9.

Table 4.9

Araceli: Miscues

Level	Mispronunciation	Substitution	Insertion	Omission	Teacher Assisted	Total Errors
6	12	4	0	2	0	18
10	13	4	0	1	0	18
14	21	9	0	7	0	29

Araceli made more mispronunciation miscues than substitution, insertion, or omission.

Mispronunciation miscues made up 76% of the total errors for levels 6, 10, and 14.

Table 4.10 assigns reading comprehension proficiencies of independent, instructional, and frustration to each level of text Araceli read. The reading proficiencies are noted for each of the four procedures used to analyze the recall protocols: content-units (c-units), gist-units (g-units), discourse structure-units (ds-units), and the DRA rubric. Table 4.10 also notes the mode in which Araceli read the text: silently (s) or orally (o). Mode of reading is not analyzed for this study, but included to show additional information. To compare oral to silent reading Araceli would have needed to do both for each level and with text organized using the same discourse structure.

Table 4.10

Araceli: Comprehension Proficiency Levels

Level	Mode	C-units	G-units	DS-units	DRA Rubric
	Oral or Silent	Reading Level	Reading Level	Reading Level	Reading Level
4	S	Instructional	Instructional	Independent	Independent
6	O	Frustration	Frustration	Frustration	Instructional
8	S	Frustration	Frustration	Frustration	Frustration
10	O	Frustration	Frustration	Frustration	Instructional
12	S	Frustration	Frustration	Instructional	Instructional
14	O	Frustration	Frustration	Frustration	Instructional

Table 4.10 shows that ds-units, or discourse-units, and the DRA rubric assign the same reading proficiency levels for level 4 and 12, indicating that Araceli was able to comprehend adequately at level 12 and possibly level 14 or higher.

Table 4.11 shows the total units Araceli recalled from the total possible for the three procedures that used units to analyze the recall protocols: c-units, g-units, and ds-units. Percentages for the unit scores are included.

Table 4.11

Araceli: Recall Units

Text Level	C-units	% C-units	G-units	% G-units	DS-units	% DS-units
4	7/19	37%	3/7	43%	3/3	100%
6	6/27	22%	2/7	29%	1/3	33%
8	2/25	8%	1/8	13%	1/3	33%
10	3/38	9%	0/8	0%	0/5	0%
12	6/35	17%	2/8	25%	2/4	50%
14	6/39	15%	1/10	10%	1/3	33%

Table 4.11 provides the numeric data used to support the reading proficiencies assigned in Table 4.10. Araceli did not perform well at text level 10, which may reflect the text more than her ability. At text level 12 she was able to recall the beginning, the characters, and how the text ended. She recalled 50% of the ds-units, which is considered instructional for this study. Even 33% could be considered instructional, depending on the instruction. For each text except level 10, Araceli recalled the characters. She seemed to have trouble explaining what happened to them, which may have been a language factor rather than comprehension.

Table 4.12 classifies total different errors made at each level according to the linguistic level the error represents: meaning, syntax, or the visual representation.

Table 4.12

Araceli: Errors at Linguistic Levels

Level	Different Errors	Meaning	Syntax	Visual
6	11	4	3	10
10	11	6	4	10
14	29	18	9	24
Totals	51	28	16	44

Araceli made more errors that reflect visual, or letter and sound relationships than errors reflecting meaning or syntax. More errors related to meaning were made than syntax. Of total different errors, 86% were visual, 55% were meaning, and 31% were syntax. Errors could reflect more than one classification. In other words, a different error could reflect meaning and visual. It could reflect all three: meaning, syntax, and visual. For example saying *pay* for *pair* is a miscue that relates to meaning, syntax, and visual.

Table 4.13 relates to the fluency at which the Araceli orally read. The reading rate is shown under words per minute. The level of the text, number of words, and the time that she took to read the text are shown.

Table 4.13

Araceli: Fluency Rate

Level	Time	# of Words	Words Per Minute
6	2'4"	71	34
10	2'10"	134	62
14	3'45"	203	54

Table 4.13 shows that Araceli read the text at level 14 with the increased number of words at a

faster rate than the text at level 6.

Dulce

Dulce appeared eager to read. She commented that she likes to read. *It's easy*, she told me. Dulce was 12 years old and had finished fifth grade. She was from Mexico and had attended school in the United States ten months. Her San Diego Quick Assessment score was first grade. I started the DRA assessment using level 14, which is considered average for the second half of first grade.

Dulce read in long phrases and used meaningful expression. She appeared to understand what she was reading. For level 14 she recalled main points of the narrative. A couple of times she told me in Spanish, when she appeared to be struggling to find the words in English. Each time she showed she had comprehended the text. I continued to have Dulce read at higher levels: 16, 18, 20, 24, and 28. At level 28 she scored at the instructional proficiency using the DRA rubric criteria. The ceiling was not reached, but I wanted to have her read text at a lower level to obtain an independent proficiency level for oral reading.

After reading seven different texts, independent and frustration levels were not obtained for either oral reading or comprehension. I did not have her read any more texts because of the limitation of time. The independent proficiency level for oral reading was not obtained using the DRA criteria of 94% accuracy.

Table 4.14 contrasts the independent, instructional, and frustration levels for oral reading using significant errors versus total errors. The DRA was unable to provide adequate data using the four texts orally read and the constraints of time and student attention. The instructional and frustration reading level for oral reading using significant errors was not determined, nor were independent, instructional, and frustration levels determined for oral reading using total errors.

Table 4.14

Dulce: Oral Reading Levels

Reading Level	Oral Reading Significant Errors	Oral Reading Total Errors
Independent	24+	ND
Instructional	ND	ND
Frustration	ND	Below 12

Dulce may be able to read at the third grade level or higher if only significant errors are used to calculate oral reading proficiency. If total errors are used, then the frustration proficiency level is below text level 12, and how much lower is not known.

Table 4.15 includes information from Table 4.14, but shows the number of errors and percentages for insignificant errors and significant errors. Table 4.15 also gives the reading level assigned to each DRA level of text that Dulce read.

Table 4.15

Dulce: Insignificant and Significant Errors

DRA Level	Insignificant Errors	Total Errors %	Significant Errors	Significant Errors %	Total Errors Reading Level	Significant Errors Reading Level
12	12	88%	4	97%	Frustration	Independent
14	26	85%	4	98%	Frustration	Independent
18	20	82%	5	97%	Frustration	Independent
24	20	82%	5	97%	Frustration	Independent

Using significant errors to determine the reading level, Dulce is at the independent reading level through level 24 and possibly higher. Examples of insignificant errors that Dulce made at level 24 are reading *help* for *helps*, dropping the *ed* on *wasted*, and reading *turned* as having two syllables with a lax vowel sound on the inflection. Table 4.15 shows that the percentage for total

errors was from 82-88%. Perhaps for ESL students the standard for determining independent level needs to be from 80-100% if total errors are used.

Table 4.16 shows the total number of language errors that Dulce made at each reading level and how many of these are significant. Table 4.16 also contrasts the number of language errors that are significant to the total errors that are significant. The total errors that are significant is contrasted to the total errors not significant and to the total errors at each level.

Table 4.16

Dulce: Language Errors

Level	Total Errors: Language	Language Errors: Significant	Total Errors: Significant	Total Errors: Not Significant	Total Errors
12	16	4	4	12	16
14	29	4	4	26	30
18	29	3	8	24	32
24	21	3	5	20	25

Language errors that Dulce made include reading *well* for *we'll*, *song* for *sang*, and *cold* for *could*. 4.16 shows that Dulce made only three language errors that were significant at level 14. Of the five total errors that were significant, three were language errors.

Table 4.17 shows the miscues marked for oral reading.

Table 4.17

Dulce: Miscues

Level	Mispronunciation	Substitution	Insertion	Omission	Teacher Assisted	Total Errors
12	7	2	3	4	0	16
14	10	4	5	11	0	30
18	9	8	6	8	1	32
24	6	10	3	7	0	25

Dulce made more mispronunciation miscues than substitution, insertion, or omission miscues for levels 12, 14, and 18. For level 24 the most miscues were substitution. Of the total errors for levels 12, 14, 18, and 24, mispronunciation miscues makes up 31%, omission is 30%, substitution is 24%, and insertion is 17%.

Table 4.18 assigns reading comprehension proficiencies of independent, instructional, and frustration to each level of text Dulce read. The reading proficiencies are noted for the recall protocols using content-units (c-units), gist-units (g-units), discourse structure-units (ds-units), and the DRA rubric. Table 4.18 notes the mode in which the student read the text: silently (s) or orally (o).

Table 4.18

Dulce: Comprehension Proficiency Levels

Level	Mode	C-units Reading Level	G-units Reading Level	DS-units Reading Level	DRA Rubric Reading Level
12	O	Frustration	Instructional	Independent	Independent
14	O	Frustration	Instructional	Independent	Instructional
16	S	Frustration	Instructional	Instructional	Instructional
18	O	Frustration	Instructional	Independent	Independent
20	S	Frustration	Instructional	Instructional	Instructional
24	O	Frustration	Instructional	Instructional	Independent
28	S	Frustration	Instructional	Instructional	Instructional

Dulce appears to read at the independent level for level 24 and at the instructional level for level 28 and possibly higher, despite the challenge to recall c-units.

Table 4.19 shows the total units Dulce recalled from the total possible for the three procedures that used units to analyze the recall protocols: c-units, g-units, and ds-units.

Percentages for the unit scores are also included. Table 4.19 provides the numeric data used to support the reading proficiencies assigned in Table 4.1

Table 4.19

Dulce: Recall Units

Text Level	C- units	% C- units	G- units	% G- units	DS- units	% DS- units
12	9/35	26%	4/8	50%	4/4	100%
14	12/52	23%	3/10	30%	3/3	100%
16	22/76	29%	7/12	58%	2/3	67%
18	23/74	31%	6/11	55%	3/3	100%
20	15/130	12%	6/10	60%	2/3	67%
24	19/127	15%	6/8	75%	3/4	75%
28	16/180	8%	8/12	67%	2/4	50%

Dulce scored 50% or higher using the ds-units to gauge comprehension. Even at level 28, she

recalled the characters and the problem contained in the story. The minimal number of c-units recalled and corresponding percentages compared to the g-units and ds-units, prompt questioning the use of c-units to determine comprehension of text.

Table 4.20 classifies total different errors made at each level according to the linguistic level the error represents: meaning, syntax, or visual representation.

Table 4.20

Dulce: Errors at Linguistic Levels

Level	Different Errors	Meaning	Syntax	Visual
12	12	7	9	11
14	22	15	11	22
18	29	22	17	24
24	23	13	18	20
Totals	86	57	55	77

Of the different errors that Dulce made, 66% reflect meaning, 64% syntax, and 90% related to visual. Some of the different errors that Dulce made are classified as errors at more than one linguistic level. For example, orally reading *list* for *listen* reflects an error of meaning, syntax, and visual.

Table 4.21 relates to the fluency at which the Dulce orally read. The reading rate is shown under words per minute. The level of the text, number of words, and the time that the Dulce took to read the text are shown.

Table 4.21

Dulce: Fluency Rate

Level	Time	# of Words	Words Per Minute
12	1'49"	137	75
14	2'47"	203	73
18	2'05	181	87

Of interest to note is that Dulce did not reduce her rate of reading at the higher level of text. She read more words per minute at level 18 than level 12.

Lae

Lae was 12 years old and had finished fifth grade. She was from Laos and had attended school in the United States nine months. She said she had studied English before coming to the United States. Her San Diego Quick Assessment score was pre-primer, which is considered the beginning of first grade. I started the DRA assessment with her using level 4, which is common for students ending kindergarten or beginning first grade. Lae read the text in phrases and with expression. She interjected with comments: *Oh, that's cool! I like this book. And I like to read. In America I like to read a lot.*

Lae seemed pleased with what she read and was able to tell me about it. At times she would say, *I don't know how to say . . .* She was enthusiastic and appeared to enjoy it, even though during the interview she commented that reading was *hard*.

Lae read four different texts before we discontinued the assessment. Perhaps I should have had her attempt another level higher, but using the DRA criteria, she appeared to have reached the frustration level for both oral reading and comprehension.

Table 4.22 contrasts the independent, instructional, and frustration levels for oral reading

using significant errors versus total errors for Lae. When only significant errors is considered the instructional and frustration levels are not determined for Lae.

Table 4.22

Lae: Oral Reading Levels

Reading Level	Oral Reading Significant Errors	Oral Reading Total Errors
Independent	4	3
Instructional	ND	3
Frustration	ND	4

Looking back I should have continued testing Lae using higher levels of texts. I used the DRA criteria to determine the cutoff. It was after I had finished testing all the students and started analyzing the data that I decided to distinguish between significant versus total errors.

Table 4.23 includes information from Table 4.22, but includes the number of errors and percentages for insignificant errors and significant errors. Table 4.23 also gives the reading level assigned to each DRA Level of text that Lae read.

Table 4.23

Lae: Insignificant and Significant Errors

DRA Level	Insignificant Errors	Total Errors %	Significant Errors	Significant Errors %	Total Errors Reading Level	Significant Errors Reading Level
2	0	100%	0	100%	Independent	Independent
3	3	93%	0	100%	Instructional	Independent
4	12	72%	3	94%	Frustration	Independent

Using the criteria of significant errors, Lae is reading at the independent proficiency level at DRA Level 4. Significant errors that Lae made at Level 4 included needing teacher assistance (TA) to read the word *under* and the word *closet*, and reading the word *behind* as *behe*. For Lae,

instructional and frustration proficiency levels were not determined.

Table 4.24 shows the total number of language errors Lae made at each level and how many of these are significant. Table 4.24 also contrasts the number of language errors that are significant to the total errors that are significant. The total errors that are significant is contrasted to the total errors not significant and to the total errors at each level.

Table 4.24

Lae: Language Errors

Level	Total Errors:	Language Errors:	Total Errors:	Total Errors:	Total Errors:
	Language	Significant	Significant	Not Significant	Errors
2	0	0	0	0	0
3	3	0	0	3	3
4	11	1	3	12	15

Lae made 15 total errors at level 4. Of these 15 errors, 11 were language errors, but only one language error was significant; and only three of the total errors of 15 were significant. Examples of errors not significant were reading *look* for *looked* and *says* for *said*. Errors not significant did not change the meaning of the text enough to affect overall comprehension.

Table 4.25 shows the miscues marked for oral reading.

Table 4.25

Lae: Miscues

Level	Mispronunciation	Substitution	Insertion	Omission	Teacher Assisted	Total Errors
2	0	0	0	0	0	0
3	0	0	0	3	0	3
4	1	3	0	9	2	15

Lae appears to omit words as a strategy to deal with words she does not recognize.

Instead of mispronouncing or substituting a different word, she skips over, which incidentally is a strategy taught with guided reading. Of the total errors, 67% were omission miscues, 17% substitution, and 5% mispronunciation.

Table 4.26 assigns reading comprehension proficiencies of independent, instructional, and frustration to each level of text the student read. The reading proficiencies are noted for each of the four procedures used to analyze the recall protocols: content-units (c-units), gist-units (g-units), discourse structure-units (ds-units), and the DRA rubric. Table 4.26 also notes the mode in which the student read the text: silently (s) or orally (o).

Table 4.26

Lae: Comprehension Proficiency Levels

Level	Mode	C-units Reading Level	G-units Reading Level	DS-units Reading Level	DRA Rubric Reading Level
2	O	Instructional	Independent	Independent	No rubric
3	O	Independent	Instructional	Instructional	Independent
4	O	Instructional	Instructional	Independent	Instructional
6	O	Frustration	Frustration	Frustration	Frustration

Lae was able to comprehend level 4 adequately, although it was labeled frustration when

considering total errors, and not only significant errors. See Table 4.23. It would be interesting to know if the frustration assigned to level 6 was a reflection of the text or her reading ability.

Table 4.27 shows the total units the Lae recalled from the total possible for the three procedures that used units to analyze the recall protocols: c-units, g-units, and ds-units.

Percentages for the unit scores are also included. Table 4.27 provides the numeric data used to support the reading proficiencies assigned in Table 4.26.

Table 4.27

Lae: Recall Units

Text Level	C-units	% C-units	G-units	% G-units	DS-units	% DS-units
2	6/14	42%	6/8	75%	2/2	100%
3	10/23	43%	6/7	86%	2/3	66%
4	5/15	33%	3/7	43%	3/3	100%
6	6/27	22%	1/7	14%	1/3	33%

Lae was able to recall 100% of the ds-units for level 4 even though it was labeled frustration using the DRA rubric criteria for oral reading. For level 4, Lae was able to recall the characters, the problem, and the solution. She also recalled the important ideas in the beginning, middle, and end. Levels 2 and 3 did not have a problem or solution. Level 2 contained a simple listing structure. Level 3 compared and contrasted what two children liked.

Table 4.28 classifies total different errors made at each level according to the linguistic level the error represents: meaning, syntax, or the visual representation.

Table 4.28

Lae: Errors at Linguistic Levels

Level	Different Errors	Meaning	Syntax	Visual
2	0	0	0	0

3	3	3	0	3
4	8	7	3	7
Totals	11	10	3	10

Lae scored equal errors for meaning and visual. The majority of her miscues reflected meaning and visual levels of linguistics.

Table 4.29 relates to the fluency at which the Lae orally read. The reading rate is shown under words per minute. The level of the text, number of words, and the time Lae took to read the text are shown.

Table 4.29

Lae: Fluency Rate

Level	Time	# of Words	Words Per Minute
2	45"	36	48
3	48"	46	58
4	1'17"	53	41

Table 4.29 shows that Level 4 may have made more demands on the reading task for Lae than the texts of Levels 2 and 3.

Marisol

Marisol was eleven years old and had finished fifth grade. She was from Mexico and had attended school in the United States nine months. Her San Diego Quick Assessment score was first grade. I started the DRA assessment using level 10, which is average level for middle of first grade. Marisol read the texts using short phrases and word-for-word fluency.

Marisol read six different levels: 10, 12, 14, 8, 4, and 2. Even at level 4 Marisol was not reading at the independent level for oral reading, and yet this text was much easier than level 14;

however for comprehension, the proficiency level for both were at the instructional level.

The challenge for Marisol seemed to be language development. She was able to tell me what she had read in Spanish, but she struggled to express her thoughts in English. She continued to try to tell me what she had read using English.

Table 4.30 contrasts the independent, instructional, and frustration Levels for oral reading using significant errors versus total errors. The DRA was unable to provide adequate data using the six texts with Marisol.

Table 4.30

Marisol: Oral Reading Levels

Reading Level	Oral Reading Significant Errors	Oral Reading Total Errors
Independent	14+	2
Instructional	ND	ND
Frustration	ND	4

The independent, instructional, and frustration levels were not determined for Marisol when only significant errors were considered.

Table 4.31 includes information from Table 4.30, but shows the number of errors and percentages for insignificant errors and significant errors. Table 4.31 also gives the reading level assigned to each DRA Level of text that Marisol read.

Table 4.31

Marisol: Insignificant and Significant Errors

DRA Level	Insignificant Errors	Total Errors %	Significant Errors	Significant Errors %	Total Errors Reading Level	Significant Errors Reading Level
2	1	97%	0	100%	Independent	Independent
4	11	91%	1	100%	Instructional	Independent

10	18	85%	2	99%	Frustration	Independent
14	34	80%	7	97%	Frustration	Independent

Even at level 14, Marisol read with 97% accuracy when only significant errors are considered.

This is a contrast to the 97% accuracy at level 2 when total errors are used.

Table 4.32 shows the total number of language errors that Marisol made at each level and how many of these are significant. Table 4.32 also contrasts the number of language errors that are significant to the total errors that are significant. The total errors that are significant is contrasted to the total errors not significant and to the total errors at each level.

Table 4.32

Marisol: Language Errors

Level	Total Errors:	Language Errors:	Total Errors:	Total Errors:	Total
	Language	Significant	Significant	Not Significant	Errors
2	1	0	0	1	1
4	12	1	1	11	12
10	20	2	2	18	20
14	41	7	7	34	41

Each of the total errors classified as significant are language errors for Marisol. Examples of these included using Spanish vowel pronunciations to produce English words, that is, reading *said* as *side*, and *it* as *eat*. These are considered not significant, because for Marisol the meaning was not changed. She was using her knowledge of Spanish to pronounce the words.

Table 4.33 shows the miscues marked for oral reading.

Table 4.33

Marisol: Miscues

Level	Mispronunciation	Substitution	Insertion	Omission	Teacher Assisted	Total Errors
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2	1	0	0	0	0	1
4	11	1	0	0	0	12
10	14	4	2	1	0	20
14	16	7	1	17	0	41

Mispronunciation miscues represents 57% of the total errors that Marisol made. Omission represents 24%, substitution 16%, and insertion 4%.

Table 4.34 assigns reading comprehension proficiencies of independent, instructional, and frustration to each level of text that Marisol read.

Table 4.34

Marisol: Comprehension Proficiency Levels

Level	Mode	C-units Reading Level	G-units Reading Level	DS-units Reading Level	DRA Rubric Reading Level
2	O	Instructional	Instructional	Instructional	No rubric
4	O	Instructional	Instructional	Independent	Independent
8	S	Instructional	Instructional	Instructional	Instructional
10	O	Frustration	Frustration	Frustration	Frustration
12	S	Instructional	Instructional	Instructional	Independent
14	O	Frustration	Frustration	Instructional	Instructional

Marisol continues to read at the instructional proficiency reading level for text level 14 when the ds-units and DRA rubric are used to gauge comprehension. Using the c-units and g-units to gauge comprehension, Marisol is at the instructional reading level at text level 12, which is still much higher than level 4 as shown in Table 4.31 using the DRA fluency criteria.

Table 4.35 shows the total units Marisol recalled from the total possible c-units, g-units, and ds-units. Percentages for the unit scores are also included. Table 4.35 provides the numeric data used to support the reading proficiencies assigned in Table 4.34.

Table 4.35

Marisol: Recall Units

Text Level	C-units	% C-units	G-units	% G-units	DS-units	% DS-units
2	4/14	29%	4/8	50%	1/2	50%
4	8/19	42%	4/7	57%	3/3	100%
8	6/25	24%	3/8	38%	2/3	67%
10	4/38	11%	1/8	13%	1/5	20%
12	16/35	46%	7/8	88%	3/4	75%
14	8/14	57%	2/10	20%	2/3	67%

Marisol recalled the characters, solution, and ending for level 12. She recalled all but one of the g-units included in the beginning, middle, and end of the text. For level 14, she recalled the characters and solution. Using ds-units to determine instructional comprehension, Marisol appears to understand at higher levels than level 14.

Table 4.36 classifies total different errors made at each level according to the linguistic level the error represents: meaning, syntax, or visual representation.

Table 4.36

Marisol: Errors at Linguistic Levels

Level	Different Errors	Meaning	Syntax	Visual
2	1	0	0	1
4	6	3	0	6
10	13	7	5	12
14	30	18	10	27
Totals	50	28	15	45

For Marisol, the majority of errors were related to visual aspects of language. Visual errors made

up 92%, meaning 56%, and syntax 30%.

Table 4.37 relates to the fluency at which the Marisol read. The reading rate is shown under words per minute. The level of the text, number of words, and the time that Marisol took to read the text are shown.

Table 4.37

Marisol: Fluency Rate

Level	Time	# of Words	Words Per Minute
2	26"	35	84
4	48"	53	66
10	1'42"	134	78
14	3'04"	203	67

The number of words in text level 14 is much higher than level 10. However, Marisol did not read level 14 at a slower rate than level 4.

Ali

Ali was ten years old and had finished fourth grade. He was from Somalia and had been in the United States for over two years. His San Diego Quick Assessment score was first Grade. I started the DRA assessment with him using level 12, which is average level for the beginning second half of first grade. Ali read word-by-word and in short phrases. Although he said that he liked reading and that it was easy, his pace and responses appeared laden.

Ali read levels 12, 14, 8, 4 and 10. The independent proficiency level for oral reading was not determined. Using the DRA criteria of 94%, level 4 was at the frustration level, and yet at level 14 Ali was able to silently read at the instructional level for comprehension. The range appears broad and extends from kindergarten to possibly beyond first grade. The ceiling was not determined.

Table 4.38

Ali: Oral Reading Levels

Reading Level	Oral Reading Significant Errors	Oral Reading Total Errors
Independent	12+	ND
Instructional	ND	ND
Frustration	ND	-4

Table 4.39 includes information from Table 4.38, but shows the number of errors and percentages for insignificant errors and significant errors. Table 4.39 also gives the reading level assigned to each DRA level of text that Ali read.

Table 4.39

Ali: Insignificant and Significant Errors

DRA Level	Insignificant Errors	Total Errors %	Significant Errors	Significant Errors %	Total Errors Reading Level	Significant Errors Reading Level
4	5	85%	3	94%	Frustration	Independent
10	24	77%	7	95%	Frustration	Independent
12	18	82%	7	95%	Frustration	Independent

Ali was able to read at the independent proficiency reading level for DRA levels 4, 10, beyond 12 when significant errors are used. When total errors are computed, Ali reads at the frustration for DRA levels 12, 10, 4, and possibly lower.

Table 4.40 shows the total number of language errors that Ali made at each level and how many of these are significant. Table 4.40 also contrasts the number of language errors that are significant to the total errors that are significant.

Table 4.40

Ali: Language Errors

Level	Total Errors: Language	Language Errors: Significant	Total Errors: Significant	Total Errors: Not Significant	Total Errors
4	3	3	3	5	8
10	24	4	7	24	31
12	18	5	7	18	25

The majority of total errors that were significant were language errors that were significant. For example, reading *pew* for *put* and *stre-* for *stripes*.

Table 4.41 shows the miscues marked for oral reading.

Table 4.41

Ali: Miscues

Level	Mispronunciation	Substitution	Insertion	Omission	Teacher Assisted	Total Errors
4	0	5	0	3	0	8
10	4	9	5	13	0	31
12	8	4	8	7	2	29

Of the total errors, 39% were omission, 26% were substitution, 19% insertion, 18% mispronunciation, and 3% were teacher assisted. Omitting words seems to be the strategy that Ali used most, which was particularly evident at level 10. Some of the words that Ali omitted at level 10 were *a*, *it*, and *around*; however, although omitted, meaning of the whole text was not hindered.

Table 4.42 assigns reading comprehension proficiencies of independent, instructional, and frustration to each level of text Ali read. Content-units (c-units), gist-units (g-units), discourse structure-units (ds-units), and the DRA rubric are used to gauge comprehension. Table 4.42 notes the mode in which the Ali read the text: silently (s) or orally (o).

Table 4.42

Ali: Comprehension Proficiency Levels

Level	Mode	C-units Reading Level	G-units Reading Level	DS-units Reading Level	DRA Rubric Reading Level
4	O	Independent	Independent	Independent	Independent
8	S	Instructional	Instructional	Instructional	Independent
10	O	Frustration	Instructional	Independent	Instructional
12	O	Instructional	Instructional	Independent	Instructional
14	S	Frustration	Frustration	Instructional	Frustration

Ali was able to read at the independent level up to text level 12 using the ds-units to gauge comprehension.

Table 4.43 shows the total units Ali recalled from the total possible for c-units, g-units, and ds-units. Percentages are also included. Table 4.43 supports the reading proficiencies assigned in Table 4.42.

Table 4.43

Ali: Recall Units

Text Level	C-units	% C-units	G-units	% G-units	DS-units	% DS-units
4	10/19	53%	7/7	100%	3/3	100%
8	8/25	32%	4/7	57%	2/3	67%
10	7/38	18%	6/8	75%	5/5	100%
12	9/35	27%	4/8	50%	4/4	100%
14	2/39	5%	2/10	20%	2/3	67%

Ali recalled a minimal number of c-units for level 14, but recalled 67% of the ds-units, which shows he understood the characters and the solution. For level 12 he recalled all of the ds-units.

Table 4.44 classifies total different errors made at each level according to the linguistic level the error represents: meaning, syntax, or visual representation.

Table 4.44

Ali: Errors at Linguistic Levels

Level	Different Errors	Meaning	Syntax	Visual
4	7	6	6	4
10	22	17	10	18
12	22	13	7	16

Of the total different errors that Ali made, 90% were related to meaning, 75% related to visual, and 45% reflected syntax.

Table 4.45 relates to the fluency in which Ali read. The reading rate is shown under words per minute. The level of the text, number of words, and the time that Ali took to read the text are shown.

Table 4.45

Ali: Fluency Rate

Level	Time	# of Words	Words Per Minute
4	1'20"	53	40
10	2'17"	134	59
12	3'28"	137	40

Rate did not seem affected by number of words or level. Ali read both levels 4 and 12 at the same rate.

Robert

Robert was eight years old and had finished second grade. He was born in the United States. His family spoke Russian at home. He started learning English and learning how to read in English when he entered kindergarten. Robert commented that reading was *kind of hard*. During the assessment he frequently yawned. I asked him if he was tired. He said no. I asked him if he had stayed up late the night before. He said no. There seemed to be no explanation for his yawning. Did reading elicit such behavior? His San Diego Quick Assessment score was primer, which is considered within the first half of first grade. I started the DRA assessment using level 12, but soon discontinued. It was too difficult. I had him read levels 8, 6, 4, and 3. He had received three years of instruction in English and in learning to read English, yet his reading performance for both oral reading and comprehension scored at the beginning of first grade. He did not appear to be using metacognitive skills such as checking his understanding or rereading if the text did not make sense. Automaticity was not evident for many words. He worked to sound many of them out. He read each of the texts aloud, even though I explained to him that he could read them silently. He said he understood what it meant to read silently, but he chose to read them out loud. The DRA provided proficiency levels of independent, instructional, and

frustration levels for Robert.

Table 4.46 contrasts the independent, instructional, and frustration reading levels for oral reading using significant errors versus total errors. The DRA provided data that determined the independent, instructional, and frustration reading levels for Robert.

Table 4.46

Robert: Oral Reading Levels

Reading Level	Oral Reading Significant Errors	Oral Reading Total Errors
Independent	6	6
Instructional	8	ND
Frustration	ND	8

There is no increment between levels 6 and 8. Using total errors, level 6 appeared to be the independent level. Level 8 was frustration.

Table 4.47 includes information from Table 4.46, but shows the number of errors and percentages for insignificant errors and significant errors. Table 4.47 also gives the reading level assigned to each DRA level of text Robert read.

Table 4.47

Robert: Insignificant and Significant Errors

DRA Level	Insignificant Errors	Total Errors %	Significant Errors	Significant Errors %	Total Errors Reading Level	Significant Errors Reading Level
3	0	100%	0	100%	Independent	Independent
4	0	96%	2	96%	Independent	Independent
6	1	96%	2	97%	Independent	Independent
8	11	78%	8	91%	Frustration	Instructional
12	7/ND	63%	12/ND	76%/ND	Frustration	Frustration

For levels 3, 4, and 6, there is not much difference between significant errors and total errors. For level 8, significant errors show this to be an instructional reading level for Robert. Total errors show it to be the frustration reading level.

Table 4.48 shows the total number of language errors that Robert made at each level and how many of these are significant. Table 4.48 also contrasts the number of language errors that are significant to the total errors that are significant. The total errors that are significant is contrasted to the total errors not significant and to the total errors at each level.

Table 4.48

Robert: Language Errors

Level	Total Errors: Language	Language Errors: Significant	Total Errors: Significant	Total Errors: Not Significant	Total Errors
3	0	0	0	0	0
4	2	2	2	0	2
6	1	0	2	1	3
8	6	2	8	11	19

Robert made minimal errors for levels 3, 4, and 6. Level 8 was more challenging. Significant errors made on level 8 included pronouncing *shocked* for *shake*, *d-* for *Duke*, and *hasn't* for *hands*.

Table 4.49 shows the miscues marked for oral reading.

Table 4.49

Robert: Miscues

Level	Mispronunciation	Substitution	Insertion	Omission	Teacher Assisted	Total Errors
3	0	0	0	0	0	0
4	0	2	0	0	0	2
6	0	0	0	3	2	3
8	2	11	2	0	5	19
12	2/ND	11/ND	1/ND	1/ND	6/ND	19/ND

The errors that Robert made most were substitution. He replaced words with possible words represented by the pictures. For example, he read *couch* for *chair*, *hand* for *arm*, *Mom* or *Mama*. Language appeared a problem.

Table 4.50 assigns reading comprehension proficiencies of independent, instructional,

and frustration to each level of text Robert read. The reading proficiencies are noted for content-units (c-units), gist-units (g-units), discourse structure-units (ds-units), and the DRA rubric.

Table 10.6 also notes the mode in which Robert read the text: silently (s) or orally (o). Robert chose to read each text orally.

Table 4.50

Robert: Comprehension Proficiency Levels

Level	Mode	C-units Reading Level	G-units Reading Level	DS-units Reading Level	DRA Rubric Reading Level
3	O	Independent	Independent	Independent	Independent
4	O	Independent	Independent	Independent	Instructional
6	O	Independent	Independent	Independent	Independent
8	O	Frustration	Frustration	Frustration	Frustration
12	O	Frustration	Frustration	Frustration	Frustration

Level 8 appears challenging for Robert, even though level 6 was identified as an independent level. The question may be whether different texts might have made a difference.

Table 4.51 shows the total units Robert recalled from the total possible for the three procedures that used units to analyze the recall protocols: c-units, g-units, and ds-units.

Percentages for the unit scores are also included. Table 4.51 provides the numeric data used to support the reading proficiencies assigned in Table 4.50

Table 4.51

Robert: Recall Units

Text Level	C- units	% C- units	G- units	% G- units	DS- units	% DS- units
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3	14/23	61%	7/7	100%	3/3	100%
4	8/19	42%	7/7	100%	3/3	100%
6	9/27	33%	6/7	86%	3/3	100%
8	2/25	8%	2/8	25%	0/3	0%

Robert seemed competent through level 6. He recalled all g-units and ds-units for levels 3 and 4. He recalled all but one g-unit for level 6 and 100% of the ds-units. He stated the characters, problem, and solution for level 7. Level 8 was challenging.

Table 4.52 classifies total different errors made at each level according to the linguistic level the error represents: meaning, syntax, or visual representation.

Table 4.52

Robert: Errors at Linguistic Levels

Level	Different Errors	Meaning	Syntax	Visual
3	0	0	0	0
4	3	2	0	2
6	3	2	1	1
8	14	10	6	8
Totals	20	14	7	11

For Robert 70% of the different errors were related to meaning, 55% related to visual, and 35% related to syntax.

Table 4.53 relates to the fluency at which Robert read. The reading rate is shown under words per minute. The level of the text, number of words, and the time that Robert took to read the text are shown.

Table 4.53

Robert: Fluency Rate

Level	Time	# of Words	Words Per Minute
3	1'9"	46	40
4	1'47"	53	30
6	2'28"	71	29
8	6'41"	86	17

Again, level 8 shows a notable difference from the other levels.

Discussion

Evidence appears to identify two points. First, the DRA does not adequately measure the reading ability of ESL students if administered using directives included in the manual. The scoring does not provide procedures and analyses necessary for interpreting ESL reading ability. The oral reading accuracy score of 94% is too high to be used as the *instructional* level for ESL students. To require 94% word recognition places students at a disadvantage for developing comprehension. Using this gauge, ESL students may be limited to instruction at the kindergarten level, and even then, words and language concepts may not be familiar. Instead, ESL students can possibly receive instruction at second-, third-, or even fourth-grade levels, which would allow them to engage in instruction along with their mainstream classmates.

Second, a gauge of language needs to be provided to show that students have the language concepts necessary to read the text. Otherwise, what the DRA may be assessing is language, not reading. Students must have the oral language to do the recall. Perhaps they do not need perfect pronunciation or syntax to show that they comprehend the ideas contained in the text. Undoubtedly, reading is one way to promote language development, but assessing reading ability is different from providing instruction in reading and language.

The DRA is published to assess reading. An option ESL teachers have is to use the texts to teach language. As a researcher, I suggest using the same texts to teach language if

students are to be tested by reading the texts. It is not cheating. It is preparation. A difference between using the DRA with first language English speakers is that teachers assume students already know the language concepts used in the kindergarten through third-grade leveled texts. Is it fair to expect ESL students who do not know the language concepts to be tested the same as students who do?

The work of Silvaroli and Wheelock (1975) does not focus primarily on reading in a second language, but they explain a process for developing language that teachers can apply to ESL students. The steps are as follows. First, give the student a picture to interpret. The picture should show two or more characters engaged in an interesting activity that students can relate to. Ask the student to tell about the picture. The student may shrug his shoulder and not reply, or maybe name a few objects in the picture. I will refer to this as Level 1. At the next higher level of language proficiency, the student would be able to describe what the character is doing. This is Level 2. At Level 3 the student can express a relationship between the characters or objects. At Level 4, the student sees the picture as a part of a narrative and verbalizes relationships of time, place, and cause-effect. At the highest level of language development, or Level 5, the student responds to the mood of the picture, perceives the emotional reactions of the characters, and draws a conclusion or evaluates the actions. Using these five levels of language proficiency prior to having students read a text that contains pictures, as many do at the primary levels, would enable teachers to discern between language and reading development.

I would like to suggest that teachers have students tell about the pictures that accompany texts. They should analyze responses based on the five levels stated above. If the student does not have the language needed to respond adequately, then before having the student read the text, the language specific to the text should be implanted, or taught and practiced, as part of the

student knowledge base. Otherwise, the reading task is an oral language and syntax assessment, and not a reading assessment. Students who are not able to perform at levels 3 or 4 may not have adequate language skills to read the content related to the pictures. These concepts and words can be presented and practiced. Then the student can be asked to apply this knowledge by reading the graphic symbols that represent them.

As a second language teacher, I cannot overlook the level of language needed to succeed in reading the same language. For this reason, perhaps as teachers of ELLs we need to first assess language before we attempt to assess reading ability. Having a student tell about a selected picture is one way. Teachers should do it one-on-one with each student and have the student *tell all about it*, and then audiotape the response. Teachers should encourage the student and prompt each student to *tell more*. We are language teachers, and as language teachers we need to know that students have the language skills prior to determining if they have the reading skills.

Another concern is the emphasis on reading fluency. The DRA is an assessment tool that uses fluency as the primary criteria for determining independent and instructional reading levels. Students in this study showed that they could read more words per minute at higher levels of texts, which appears an indication that fluency as a measure of reading does not work for ELLs, especially if there is an assumption about fluency as a correlate and determinant of reading comprehension, as writers of *Put Reading First* (2001) and the National Reading Panel Report (2000) claim.

Interesting to note is that each of the students were scored as NER, Non-English Reader, according to the IPT Reading Test (Amori, Dalton, & Tighe; 2005) given as part of the school district's assessment program about three months previous to this study. The IPT Reading Test includes the following among the descriptors used to classify the NER level of ability: *lacks*

sight vocabulary, lacks word analysis skills to comprehend and select appropriate labels, shows inability to form generalizations, shows inability to use context to assist in understanding unknown words, does not understand the main idea in a reading passage or poem, misinterprets or fails to interpret correctly the information in a reading passage, does not recognize cause and effect relationships, does not identify and understand supporting details. These NER descriptors contrast to the ones listed among the LER (Limited English Reader) descriptors, which state that the reader has *limited or partial* ability to do the previously mentioned skills. Although the students who participated in this study were classified as NER, they appear to have applied skills classified as LER.

One final consideration may be the texts themselves. The texts included in the DRA for kindergarten through third grade do not appear written with a systematic approach that embraces consistent graduation of difficulty. Texts used for assessing reading should include clear discourse structures for both narratives and expositions. Narratives need to include story grammar elements of setting, characters, plot, resolution, and theme. Narratives also include the top-level structures of exposition, or informative texts, such as problem-solution, compare-contrast, cause-effect, and time-order. These top-level structures, or paradigms of thought, should be embedded in well-written narratives and expositions. In exposition, main ideas supported by significant details should be apparent. Texts used for reading assessment need to be of appropriate length and written so that extraneous ideas do not muddle comprehension processing as ESL students attempt to translate and understand the meaning. Finally, texts used to develop and assess reading should be written clearly and represent main ideas of concepts relevant to second language learners. See Appendix A for analyses of the texts included in the DRA assessment used for this study.

Conclusion

Analyses of the student recall protocols show that a DRA score reflecting oral reading fluency at an independent or instructional level may not reveal the comprehension level of ESL students, and thus, may not be an adequate measure of reading ability. What teachers of ESL students may be assessing is language skills, not reading skills. Using the criteria of 94-99% for an Instructional Level appears too high for ESL students. The findings of this study suggest that a range of 89-75% may be adequate for instruction. Students in this study comprehended text with an oral reading accuracy rate between 89-75%. Perhaps this more adequately reflects a range for instruction for ESL students. Also, reading comprehension of ESL students appears at the instructional level below that of 75%. How much do teachers normally expect their mainstream students to know prior to instruction? If students already know half of what is to be presented before the teacher provides the instruction, is not this considered more than enough? Would this not be at an instructional level? A competence performance of 75% would be a passing grade for most classes after the lesson or unit had been completed. Why should we expect students to have a 90% comprehension rate to be instructional? For ESL students, the gauge for determining oral reading accuracy and reading comprehension needs to be revisited and changed.

In the next and final chapter, Chapter Five, I provide a conclusion for this study. I report an answer to the research question: Do DRA scores adequately measure the reading levels of ESL students?

CHAPTER 5: Conclusion

When I first wrote the research question for this study, I would have answered it with a *yes*. Yes, DRA scores adequately measure the reading levels of ESL students—if administered and scored so that base and ceiling levels are accurately reported. Although I doubted that many teachers would afford the time and effort to follow through with such a task, I have been known to hope beyond the norm. Now that I have conducted the study, my answer to the research question is *no*. No, DRA scores do not adequately measure the reading levels of ESL students.

The procedure and instructions for scoring the DRA do not support my view of reading. Nor does it of others. Bartlett (1932) would agree. Thorndike (1917) would applaud. All of us would chorus, *Reading is making meaning*.

I did not tell the students who participated in the study to read with expression. I did not tell them that their reading was a performance of their knowledge of how to pronounce words in English. I told them to read so they could tell me what it was about. I wanted them to read to understand.

Why then would I count oral reading errors against them to determine reading ability? If my purpose is to know how much they comprehend, why is reading fluency an issue of importance?

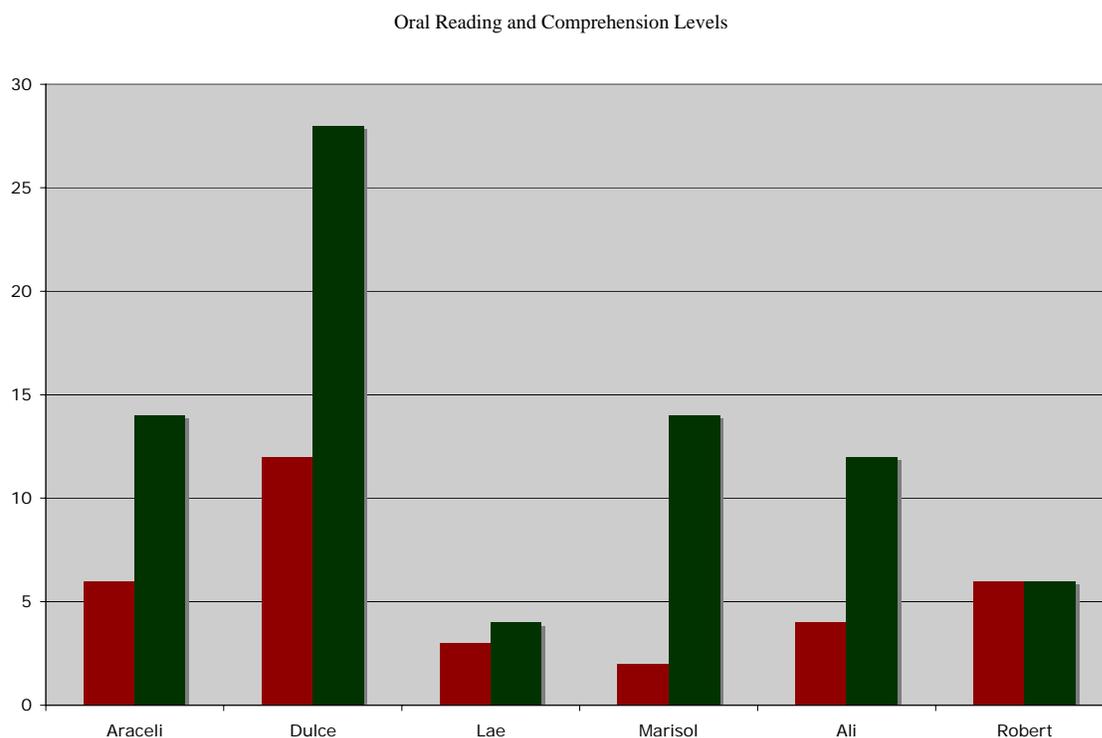
I know what the *Put Reading First* (2001) publication states. I know what the National Reading Panel Report (2000) records. They each report correlations between reading fluency and comprehension. I disagree. ESL students should not be assessed with the same oral reading

fluency expectations as native English speakers if reading comprehension is of most importance to measure.

LaBerge & Samuels (1974) have a point. Automaticity would help. The oral reading performance of the ESL students I tested tended to be slow and laborious, but that does not mean they cannot comprehend the text. They may process text slowly and make more miscues than the DRA sets as a standard for the instructional level, but for five of the ESL students in the study, they showed that they could comprehend texts at higher levels than they can read fluently. Figure 5.1 again shows that which was previously presented in Figure 4.1.

Figure 5.1

Oral Reading and Comprehension Levels



I would also like to reiterate that the one student for whom the comprehension score was not higher was the only student classified as a Fluent English Speaker (FES). So to say it one

more time, to not allow students to read texts at much higher levels than they can read fluently, appears to be an injustice to them and a disservice to their education.

Allow me to emphasize that when I assessed the six students I was not interested in how well they *barked*. Rumelhart (1977) would understand. I wanted to know if they could get meaning from what they read. That is what I wanted to know. That is what I found out. Yes, ESL students can. And importantly, they can comprehend gist statements and top-level text structures with higher percentages than they can recall details. Does that not make sense?

I think it does. Just because something can be counted, and counted easily, does not mean it is something I should be counting. I am referring to miscues. This is part of the problem in using the DRA with ELLs. The manual does not tell me to look for the discourse structures that students recall. It focuses on the fluency and accuracy of oral reading, which is acceptable if reading is pronouncing words correctly, but I am not camped with professionals who foster a similar view.

Nor do I tell students to put a book back if it looks too hard. I do not tell them to count the number of words on the page that they do not know, and *if there are more than the number of fingers on a hand*, then it is too hard and they should put it back. What is the student going to do when he wants to learn about robotics and picks up a book about programming such models? Is he going to put it back on the shelf, never to find a text with only the words he already knows? Have I developed a life-long learner by promoting such behavior? My goal is to help students become independent learners, not readers dependent on aligning their reading to an arbitrary fluency scale.

I am pleased if a student selects a book and can pronounce only 50% of the words and get meaning from the text. I am excited if students continue checking out books that by DRA

standards would be at a frustration level. Who am I to limit their reading?

I am not going to. And I am not going to use the 94% standard to identify independent and instructional levels for my ESL students. Perhaps this is one reason that Robert appeared to fit the DRA assessment model. He has been learning to read for almost four years, and yet he is performing at a preprimer level. He appears bored with reading. He does not particularly like to read. What does this say about accommodating students with texts at a 99-94% word accuracy level? What does this suggest about providing instructional materials at a 94-90% accuracy level? The student has missed out on the wonder of ideas contained in texts. Perhaps he has been so halted by aligning reading fluency to comprehension, that he has lost the motivation to read. The assessment that *drives instruction* has driven him off the road of reading.

Perchance I have clamored enough. The points appear clear. The DRA does not appear to be a good choice for assessing the reading ability of ESL students.

In sum, the DRA manual does not provide the analyses and scoring procedures used in this study. Using the directives contained in the DRA assessment, I doubt that teachers would determine similar levels of instruction for the ESL students I tested.

The publishers claim that the DRA is an assessment that *drives instruction*. The assessment may *drive* instruction, but the results of this study suggest that teachers or students may not arrive at the destination they need to be. If tenets of scaffolding are applied, that of instructing students at their proximal level of development (Vygotsky, 1978), then those who use the dictates of the DRA manual will be teaching ESL students at distinctly distant levels from where I initiate instruction.

As I told an ESL teacher last spring, *I stretch them*. I knew she thought the level of text was too high and too hard. The student could not pronounce all the words correctly: not

94% of them, not even 90% of them. It was probably more like 75%, but that was only because I had not yet presented them. I planned to provide instruction for the vocabulary first. Why is this not a standard expectation of teachers and students? Betts (1948) exhorted as much over half a century ago. Why have teachers yet to don the responsibility to present words and concepts prior to expecting students to recognize or comprehend them? This is so needed when teaching language to second language learners.

I perceive that even though I have conducted this study and have numbers to support my argument, I may have to sell teachers on the idea that the DRA does not adequately measure the reading ability of ESL students, and that the DRA oral reading scores reveal more about knowledge of the English language than reading comprehension skills.

ESL teachers are not the only ones with whom I plan to share these findings. I plan to disseminate results with mainstream teachers, special education teachers, and principals, and not only at my school, but also with professionals outside the district. I plan to share findings at conferences and in writing. I want to publish the knowledge I have gleaned and cull misconceptions that permeate reading and language domains.

Limitations

I admit the findings are limited, because there were only six students in the study. They were considered newcomers, or at least had been learning English a short period of time. They were children in elementary school.

The findings are limited also because of time and attention constraints. I did not find the ceiling and base reading levels for all the students. For most of them, the independent and frustrations levels were even lower or higher than what I was able to record, which would create even larger variances in scores, and perhaps provide additional knowledge to that which I

convey in this paper.

Recommendations for Further Research

This next year I plan to continue collecting data using DRAs to assess the reading ability of ESL students. I will obtain district and parental permission to use the data collected to add to the results that I have presented. I will also encourage other ESL and mainstream teachers to consider how they administer and interpret the DRA with their students.

A few particulars that could be addressed include looking at first languages of ESL students in relation to oral reading miscues and comprehension. Number of years learning English and learning to read could be analyzed as distinct variables. Also, ages and gender of students could be factors. Is measuring the reading ability of older students similar to the younger students used in this study? Would men produce similar results as women? Is fluency any more or less a concern to adults when they read aloud as a performance and measure of assessment than it is for children?

I recommend manipulating text. Vocabulary concepts should be considered. What language concepts can we expect ELLs to know by the second or third year of English learning? Which discourse structures should be recognized? How can texts be written to parallel the purposes for reading in later years?

As a reader I do not read every word. I do not concern myself with knowing all the words, and I hardly ever read aloud. And yet, as an ESL teacher I am expected to ask students to read aloud to assess their reading. Something is missing. How do we change our expectations of what reading is in the beginning stages to what reading is as a life-long skill? Do we? Maybe that is another area of research needed for ESL students. What is reading to them? For the students in this study, half of them said it was hard. Why? What makes reading hard for

ESL students? Some of them know. We need to find out. *It's easy* was also voiced. What makes it easy? As ESL teachers we need to know this also. Are we asking our students? Are we allowing them to provide us with answers? Or are we not asking the right questions? Are we giving them text for which they have little language skills? Are we expecting ESL students to decode, understand, and retell the concepts they are not even used to talking about?

This summer I took a class on advocating for ELLs. I assume the role. I take the floor. I present my case: DRAs do not adequately assess the reading ability of ESL students, but they do raise the blind on their language skills.

A Story to Conclude

Leo Lionni (1960) wrote a story that provides analogy for the challenge of assessing reading. He tells about an inchworm that becomes a hero. One morning a robin threatens to eat the inchworm. The inchworm tells the robin he is useful. He knows how to measure things. The robin tells him to measure his tail. The inchworm does that easily. The robin then carries him off to show his friends. The inchworm shows the robin's friends that he can measure the flamingo's neck, the toucan's beak, the heron's legs and the pheasant's tail. He can measure the entire hummingbird. Then along comes a nightingale. The nightingale threatens to eat the inchworm if he does not measure his song. The inchworm replies that he measures things, not songs. Being mortally threatened, the inchworm chooses deception. He tells the nightingale to sing and he will try to measure it. The nightingale sings and sings and the inchworm begins measuring: blades of grass, lengths of leaves. He measures until he is out of sight. He measured, but not the song.

When I read this story I see how it parallels much of what I observe in assessing the reading of ESL students. As educators we work to meet the demands of state and district

policies to show that our students are making progress and that we are providing effective instruction. We need evidence that they are reading, writing, and acquiring the English language so they become successful language learners in mainstream classes.

We have hope. We have goals. We have agendas. And we have tests. We must continue to ask ourselves the questions: *Does what we are doing truly portray the acquisition of skills and language of our students?* As teachers, we need to be accountable and responsible to honestly answer: *Does what we are doing measure that which we want to test?*

For me, I know what I must do to answer, *yes*.

REFERENCES

- Adams, M. J. & Collins, A. (1979). A schema-theoretic view of reading. In R. O. Freedle (Ed.), *New directions in discourse processing* (pp. 1-22). Norwood, NJ: Ablex.
- Allen, E. D. & Valette, R. M. (1977). *Classroom techniques: Foreign language and English as a second language*. New York: Harcourt Brace Jovanovich.
- Allington, R. L. (1984). Oral reading. In P. D. Pearson, R. Barr, M. Kamil, & P. Mosenthal (Eds.), *Handbook of reading research* (pp. 829-864). New York: Longman.
- Amori, B., Dalton, E. F., & Tighe, P. (2005). *IPT I Reading & Writing*. Brea, CA: Ballard & Tighe.
- Baldwin, R. S., Peleg-Bruckner, Z., & McClintock, A. H. (1985). Effects of topic interest and prior knowledge on reading comprehension. *Reading Research Quarterly*, 20(4), 497-504.
- Ballard, W. S., Dalton, E. F., & Tighe, P. (2006). *IPT I Oral K-6*. Brea, CA: Ballard & Tighe.
- Bartlett, F. C. (1932). *Remembering*. Cambridge: Cambridge University Press.
- Beaver, J. (2004). *Developmental reading assessment*. Upper Saddle River, NJ: Celebration Press.
- Been, S. (1979). *Reading in a foreign language teaching program*. In R. Mackay, B. Barkman, & R. R. Jordan (Eds.) *Reading in a second language: Hypotheses, organization, and practice* (pp. 91-102). Rowley, MA: Newbury House.

- Berkowitz, S. J. (1986). Effects of instruction in text organization on sixth-grade students' memory for expository reading. *Reading Research Quarterly*, 21(2), 161-178.
- Bernhardt, E. B. (1991). *Reading development in a second language: Theoretical, empirical, and classroom perspectives*. Norwood, NJ: Ablex Publishing Corporation.
- Bernhardt, E. B. (1983). Three approaches to reading comprehension in intermediate German. *The Modern Language Journal*, 67(2), 111-115.
- Birch, B. M. (2002). *English L2 reading: Getting to the bottom*. Mahwah, NY: Lawrence Erlbaum associates, Publishers.
- Blau, E. K. (1982). The effect of syntax on readability for ESL students in Puerto Rico. *TESOL Quarterly*, 16(4), 517-527.
- Cates, G. T. & Swaffar, J. K. (1979). *Language in education: Theory and practice*. Arlington, VA: Center for Applied Linguistics.
- Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). *Teaching pronunciation*. New York: Cambridge University Press.
- Chastain, K. (1988). *Developing second-language skills: Theory and practice* (3rd ed.). San Diego: Harcourt Brace Jovanovich.
- Clark, M. A. (1988). The short circuit hypothesis of ESL reading—or when language competence interferes with reading performance. In P. Carrell, J. Devine, and D. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 114-124). New York: Cambridge University Press.
- Coady, J. (1979). A psycholinguistic model of the ESL reader. In R. Mackay, B.

- Barkman, & R. R Jordan (Eds.), *Reading in a second language: Hypotheses, organization, and practice* (pp. 5-12). Rowley, MA: Newbury House.
- Fillmore, L. W. & Snow, C. E. (2005). What teachers need to know about language. In P. Richard-Amato and M. Snow (Eds.), *Academic success for English language learners* (pp. 47-75). White Plains, NY: Pearson Education, Inc.
- Flynt, E. S. & Cooter, Jr., R. B. (2004). *Reading inventory for the classroom* (5th ed.). Upper Saddle River, NY: Pearson.
- Goodman, K. S. (1970). Reading: A psycholinguistic guessing game. In H. Singer & R. B. Ruddell (Eds.), *Theoretical models and processes of reading*. Newark, DE: International Reading Association.
- Goodman, K. S. (1981). Miscue analysis and future research directions. *Learning to read in different language*. Washington D.C: Center for Applied Linguistics.
- Gough, P. B. (1983). Context, form, and interaction. In K. Rayner (Ed.), *Eye movements in reading: Perceptual and language processes*. New York: Academic Press.
- Griffin, S. M. (1992). Reading aloud: An Educator Comments. *TESOL Quarterly*, 26(4), 784-787.
- Hudelson, S. (1984). Kan yo ret an rayt en Ingles: Children become literate in English as a second language. *TESOL Quarterly*, 18,(2), 221-238.
- Huey, E. B. (1908). *The psychology and pedagogy of reading*. New York: Macmillan.
- Jiménez, R. T., García, G. E., Pearson, P. D. (1995). Three children, two languages, and strategic reading: Case studies in bilingual/monolingual reading. *American Educational Research Journal*, 32(1), 67-97.
- Johnson, R. E. (1973). Meaningfulness and the recall of textual prose. *American*

- Educational Research Journal*, 10(1), 49-58.
- Johnston, P. H. (1984). Assessment in reading. In P. D. Pearson, R. Barr, M. Kamil, & P. Mosenthal (Eds.), *Handbook of reading research* (pp. 147-182). New York: Longman.
- Just, M. A. & Carpenter, P. A. (1987). *The psychology of reading and language comprehension*. Boston, MA: Allyn and Bacon.
- King, M. (1977). Evaluating reading. *Theory into practice*, 16(5), 407-418.
- LaBerge, D. & Samuels, S. (1974). Toward a theory of automatic information processing reading. *Cognitive Psychology*, 6, 293-323.
- Leslie, L. & Caldwell, J. (1990). *Qualitative reading inventory*. New York: Harper Collins Publishers, Inc.
- Lightbown, P. M. & Spada, N. (1999). *How languages are learned* (2nd ed.). Oxford: Oxford University Press.
- Lionni, L. (1960). *Inch by inch*. New York: Harper Collins Publishers.
- Mabbott, A. S. (1995). *An exploration of learner characteristics of students labeled learning disabled who are successful second language learners*. Unpublished doctoral dissertation, University of Minnesota.
- MacGinitie, W. H., MacGinitie, R. K., Maria, K., Dreyer, L. G., & Hughes, K. E. (2000). *Gates-MacGinitie reading tests (GMRT)* (4th ed.). Rolling Meadows, IL: Riverside Publishing Company.
- McGee, L. M. (1982). Awareness of text structure: Effects on children's recall of expository text. *Reading Research Quarterly*, 17(4), 581-591.
- Meyer, B. J. F. (1975). *Organization of prose and its effects on recall*. Amsterdam: North

Holland Publishing Company.

- Meyer, B. J. F. (1977). The structure of prose: Effects on learning and memory and implications for educational practice. In R. C. Anderson, R. J. Spiro, and W. E. Montague (Eds.), *Schooling and the Acquisition of Knowledge*. Hillsdale, N.J.: Lawrence Erlbaum.
- Moncur, M. & Moncur, L. (1994) Albert Einstein. *Quotations by author*. Retrieved July 12, 2007, from http://www.quotationspage.com/quotes/Albert_Einstein/31.
- Nassaji, H. (2003). Higher-level and lower-level text processing skills in advanced ESL reading comprehension. *The Modern Language Journal*, 87(2), 261-276.
- Nathan, R. G. & Stanovich, K. E. (1991). The causes and consequences of differences in reading fluency. *Theory into Practice*, 30(3), 176-184.
- National Institute of Child Health and Human Development, NIH, DHHS. (2001). *Put reading first: The research building blocks for teaching children to read*. Washington, DC: U.S. Government Printing Office.
- National Reading Report. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature in reading and its implications for instruction*. Washington, DC: National Institute of Child Health and Human Development.
- Paulston, C. B. & Bruder, M. N. (1976). *Teaching English as a second language: Techniques and procedures*. Cambridge, MA: Winthrop.
- Rivers, W. M. (1981). *Teaching foreign language skills*. Chicago: The University of Chicago Press.
- Rosenblatt, L. M. (1995). *Literature as exploration*. New York: Modern Language

Association of America.

- Rumelhardt, D. E. (1977). Toward an interactive model of reading. In S. Dornic (Ed.), *Attention and performance VI*. Hillsdale, NJ: Erlbaum.
- Samuels, S. J. & Kamil, M. (1984). Models of the reading process. In P. D. Pearson, R. Barr, M. Kamil, and P. Mosenthal (Eds.), *Handbook of reading research* (pp. 185-224). New York, NY: Longman.
- Silvaroli, N. J. (1994). *Classroom reading inventory* (7th ed.). Madison, Wisconsin: Brown & Benchmark Publishers.
- Silvaroli, N. J. & Wheelock, W. H. (1975). *Teaching reading: A decision making process*. Dubuque, IA: Kendall Hunt Publishing Company.
- Smith, F. (1982). *Understanding reading* (3rd ed.). New York: Holt, Rinehart and Winston.
- Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16(1), 32-71.
- Spiro, R. J., Vispoel, W. L., Samarapungavan, A., & Boerger, A. E. (1987). Knowledge acquisition for application: Cognitive flexibility and transfer in complex content domains. In B. K. Britton & S. Glymer (Eds.), *Executive control processes* (pp. 177-199). Hillsdale, NJ: Erlbaum.
- Taylor, B. M. (1980). Children's memory for expository text after reading. *Reading Research Quarterly*, 15(3), 399-411.
- Taylor, B. M. (1982). Text structure and children's comprehension and memory for expository material. *Journal of Educational Psychology*, 74(3), 323-340.

Thorndike, E. L. (1917). Reading as reasoning: A study of mistakes in paragraph reading.

Journal of Educational Research, 8, 323-332.

Tserdanelis, G. & Wong, W. Y. P. (Eds.). (2004). *Language Files: Materials for an*

introduction to language and linguistics. Columbus, OH: The Ohio State University Press.

Tuinman, J. J. (1973). Determining the passage dependency of comprehension questions

in 5 major tests. *Reading Research Quarterly*, 9(2), 206-223.

Van Dijk, T. A. & Kintsch, W. (1983). *Strategies of discourse*. New York:

Academic Press.

Voss, J. F., & Bisanz, G. L. (1985). Knowledge and the processing of narrative and

expository text. In B. K. Britton & J. B. Black (Eds.), *Understanding expository text: A theoretical and practical handbook for analyzing expository text*.

Hillsdale, NJ: Erlbaum.

Vygotsky, L. E. (1978). *Mind in society*. Cambridge, MA: Harvard University

Press.

Walker, B. J. Mokhtari, K. & Sargent, S. (2006). Reading fluency: More than fast and

accurate reading. In T. Rasinski, C. Blachowicz, & K. Lems (Eds.), *Fluency instruction*. New York: The Guildford Press.

Woods, M. L. & Moe, A. J. (1989). *Analytical reading inventory* (4th ed.). New York:

Macmillan Publishing Company.

Yin, R. K. (1989). *Case study research: Design and methods*. Newbury Park, CA: Sage.

Appendix A

LEVELED TEXTS ANALYSES

Appendix A
Leveled Texts Analyses

Leveled Text Analyses

Level	# Words	# C-units	# Words/C-unit	# G-units	# DS-units	DS
2	45	14	3.2	8	2	Listing
3	58	23	2.5	7	3	C-C
4	58	19	3.1	7	3	P-S
6	77	28	2.8	7	3	P-S
8	87	26	3.3	7	3	C-C
10	133	39	3.4	8	5	C-C
12	140	36	3.9	8	4	P-S
14	204	53	3.8	10	3	P-S
16	270	77	3.5	12	3	P-S
18	283	75	3.8	11	3	P-S
20	431	131	3.3	10	3	P-S
24	471	127	3.7	8	4	P-S
28	699	181	3.9	12	4	P-S

THE ADEQUACY OF DEVELOPMENTAL READING ASSESSMENT (DRA) SCORES TO
MEASURE READING ABILITY OF
ENGLISH AS A SECOND LANGUAGE (ESL) STUDENTS

By

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To
Abdiladif Ali,
whose desire to learn, and to learn English,
ever inspires my soul

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