istation

Technology Transforming Education

Technical Manual

**istation's Indicators of Progress,
Early Reading
Version 4**

**Computer Adaptive Testing System for Continuous
Progress Monitoring of Reading Growth for Students
Pre-K to Grade 3**

Patricia Mathes, Joseph Torgesen, Jeannine Herron

Table of Contents

972.643.3440 • fax: 972.643.3441 • www.istation.com

Executive Summary

This report summarizes our proposal for review of istation's Indicators of Progress, Early Reading (ISIP™) for the 2011-2012 List of Recommended Reading Assessments for Progress Monitoring in Kindergarten, Grade 1, Grade 2 and Grade 3. ISIP Early Reading is a computer delivered assessment that measures growth and development of early reading skills as required by Texas State TEC 28.006.

This proposal includes a) an overview of ISIP Early Reading b) the history of ISIP Early Reading development and the technical data underlying the present version c) directions for administration and subtest protocols and d) the research done to establish IRT calibration, reliability and validity, and national norms.

ISIP Early Reading is the culmination of many years of development, field testing and research begun by Joseph K. Torgesen Ph.D and Patricia Mathes, Ph.D on extending computerized CBM applications to beginning readers. ISIP has been designed to automatically benchmark and continuously monitor Kindergarten through Grade 3 student progress throughout the school year in all the critical areas of early reading including phonemic awareness, alphabetic knowledge and skills, fluency, vocabulary and comprehension as mandated by the Elementary and Secondary Education Act, No Child Left Behind (NCLB). This is accomplished through short tests or probes, administered at least monthly, that sample critical areas that predict later performance. Assessments are computer based and teachers can arrange for entire classrooms to take assessments as part of scheduled computer lab time, or individually as part of a workstation rotation conducted in the classroom. The entire assessment battery for any assessment period requires approximately 30 minutes. It is feasible to administer ISIP assessments for an entire classroom, an entire school and even an entire district in a single day with adequate computer resources. Student results are immediately available to teachers and administrators, illustrating each student's past and present performance and skill growth. Teachers are alerted when students are not making adequate progress so that the instructional program can be modified before a pattern of failure becomes established. ISIP Early Reading is currently being used by 600,000 K-3 students throughout the U.S. for benchmark assessments and continuous progress monitoring.

Dr. Patricia Mathes, Director of the Institute for Evidence-Based Education at Southern Methodist University (SMU), conducted a study in the Dallas-Ft. Worth area to determine the concurrent validity correlations between ISIP Early Reading and DIBELS test of similar construct, as well as a variety of other norm referenced measures.

An internet delivered, computer based assessment of early reading skills is an important option for schools and schools districts in the state of Texas. It will result in more timely and effective instruction and interventions. ISIP Early Reading eliminates burdensome test administration, including the cost of substitutes during testing or the cost of contract testers, and can increase instructional time. It eliminates scoring errors by calculating, compiling and reporting student results and improves test reliability through consistency of instruction.

ISIP Early Reading makes it easy for districts and schools to implement on-going progress monitoring. Student information is immediately provided to administrators and teachers in formats that are understandable, easy to use and that can assist them in evaluating the students' instructional plans throughout the school year.

With ISIP, there are no CD ROMs to install or school based servers to maintain. ISIP is downloaded from the istation website by the click of a button. The number of students that can use the assessment simultaneously is unlimited. With teacher observation to ensure reliability, entire classrooms, schools and even districts can complete continuous progress monitoring on all students weekly, if desired. ISIP provides immediate access to student results from the istation website at www.istation.com. Student results are automatically grouped for the teacher by risk level and individual skill need. Links to plans of instruction for each level of support and skill

category are depicted.   Downloadable lessons and materials appropriate for each group and specific subtests are provided to teachers. Teachers can elect to validate assessment results or choose to run assessments for individual students by merely assigning the assessment to the student from our website. Teachers are alerted on classroom level reports of student trends of performance that may require re-evaluation of the instructional plan. District level reports provide summary risk levels, skill and historical information for all campuses that can be used to evaluate curriculum and allocate resources. Student information is available by demographic classification and groupings of students.

Please contact Tracey Roden at 214.686.2513 with any questions.

CHAPTER 1

Introduction

ISIP™, istation's Indicators of Progress, Early Reading (ISIP Early Reading) is a sophisticated, web-delivered Computer Adaptive Testing (CAT) system that provides Continuous Progress Monitoring (CPM) by frequently assessing and reporting student ability in critical domains of reading throughout, and across, academic years. ISIP Early Reading is the culmination of many years of work begun by Joseph K. Torgesen, Ph.D. and Patricia G. Mathes, Ph.D. on extending computerized CPM applications to beginning readers.

Designed for students in Pre-Kindergarten through Grade 3, ISIP Early Reading provides teachers and other school personnel easy-to-interpret, web-based reports that detail student strengths and deficits and provide links to teaching resources. Use of this data allows teachers to more easily make informed decisions regarding each student's response to targeted reading instruction and intervention strategies.

ISIP Early Reading provides growth information in the five critical domains of early reading: phonemic awareness, alphabetic knowledge and skills, fluency, vocabulary, and comprehension. It is designed to (a) identify children at risk for reading difficulties, (b) provide automatic continuous progress monitoring of skills that are predictors of later reading success, and (c) provide immediate and automatic linkage of assessment data to student learning needs, which facilitates differentiated instruction.

ISIP Early Reading has been designed to automatically provide continuous measurement of Kindergarten through Grade 3 student progress throughout the school year in all the critical areas of early reading, including phonemic awareness, alphabetic knowledge and skills, fluency, vocabulary, and comprehension, as mandated by the Elementary and Secondary Education Act, No Child Left Behind (NCLB). Importantly, there is no other continuous progress monitoring assessment tool that measures vocabulary and comprehension. This is

accomplished through short tests, or "probes," administered at least monthly, that sample critical areas that predict later performance. Assessments are computer–based, and teachers can arrange for entire classrooms to take assessments as part of scheduled computer lab time or individually as part of a workstation rotation conducted in the classroom. The entire assessment battery for any assessment period requires 40 minutes or less. It is feasible to administer ISIP Early Reading assessments to an entire classroom, an entire school, and even an entire district in a single day, given adequate computer resources. Classroom and individual student results are immediately available to teachers, illustrating each student's past and present performance and skill growth. Teachers are alerted when a particular student is not making adequate progress so that the instructional program can be modified before a pattern of failure becomes established.

The Need to Link Early Reading Assessment to Instructional Planning

Perhaps the most important job of schools and teachers is to ensure that all children become competent readers, capable of fully processing the meaning of complicated texts from a variety of venues. Reading proficiency in our information-driven society largely determines a child's academic, social, occupational, and health trajectory for the rest of his or her life. In a society that requires increasingly higher literacy skills of its citizenry, it cannot be stated strongly enough that teaching every child to read well is not an option, but a necessity. Every child that can read benefits society by being healthier, fully employed, and better informed.

Sadly, teaching every child to read is a goal we are far from achieving. Large portions of our children continue to struggle to become competent readers (National Reading Panel, 2000; Lyon, 2005). Without adequate reading skills to comprehend and apply information from text, students frequently experience school failure. In fact, many students drop out of school as soon as they are able (Alliance for Excellent Education, 2006). The solution is to intervene when these students are in the early grades (Bryant et al., 2000).

There is a wide consensus about what comprises the elements of effective reading instruction (e.g., National Reading Panel, 2000; Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001; Snow, Burns, & Griffin, 1998). These elements are the same, whether the focus is prevention or intervention, and they include: phonemic awareness, alphabetic knowledge and decoding skills, fluency in word recognition and text processing, vocabulary, and comprehension (Foorman & Torgesen, 2001). Likewise, consensus on the predictors of reading difficulties is emerging from longitudinal databases (e.g., Fletcher, Foorman, Boudousquie, Barnes, Schatschneider, & Francis, 2002; O'Connor & Jenkins, 1999; Scarsborough, 1998; Torgesen, 2002; Vellutino, Scanlon, & Lyon, 2000; Wood, Hill, & Meyer, 2001).

It is well established that assessment-driven instruction is effective. Teachers who monitor their students' progress and use this data to inform instructional planning and decision-making have higher student outcomes than those who do not (Conte & Hintze, 2000; Fuchs, Fuchs, Hamlett, & Ferguson, 1992; Mathes, Fuchs, Roberts, 1998). These teachers also have a more realistic conception of the capabilities of their students than teachers who do not regularly use student data to inform their decisions (Fuchs, Deno, & Mirkin, 1984; Fuchs, Fuchs, Hamlett, & Stecker, 1991; Mathes et al., 1998).

However, before a teacher can identify students at risk of reading failure and differentiate their instruction, that teacher must first have information about the specific needs of his or her students. To link assessment with instruction effectively, early reading assessments need to (a) identify students at risk for reading difficulties, students that may need extra instruction or intensive intervention if they are to progress toward grade level standards in reading by year end; (b) monitor student progress for skill growth on a frequent and ongoing basis and identify students falling behind; (c) provide information about students that will be helpful in planning instruction to meet their needs; and (d) assess whether students have achieved grade level reading standards at the end of the year.

In any model of instruction, for assessment data to affect instruction and student outcomes, it must be relevant, reliable, and valid. To be relevant, data must be available on a timely basis and target important skills that are influenced by instruction. To be reliable, there must be a reasonable degree of confidence in the student score. To be valid, the skills assessed must provide information that is related to later reading ability. There are many reasons why a student score at a single point in time under one set of conditions may be inaccurate: confusion, shyness, illness, mood or temperament, communication or language barriers between student and examiner, scoring errors, and inconsistencies in examiner scoring. However, by gathering assessments across multiple time points, student performance is more likely to reflect actual ability. By using the computer, inaccuracies related to human administration errors are also reduced.

The collection of sufficient, reliable assessment data on a continuous basis can be an overwhelming and daunting task for schools and teachers. Screening and inventory tools such as the *Texas Primary Reading Inventory* (TPRI: Foorman et al, 2005) and *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS: Good & Kaminski, 2002) use a benchmark or screen schema in which testers administer assessments three times a year. More frequent continuous progress monitoring is recommended for all low performing students, but administration is at the discretion of already overburdened schools and teachers.

These assessments, even in their handheld versions, require a significant amount of work to administer individually to each child. The examiners who implement these assessments must also receive extensive training in both the administration and scoring procedures to uphold the reliability of the assessments and avoid scoring errors. Because these assessments are so labor intensive, they are very expensive for school districts to implement and difficult for teachers to use for ongoing progress monitoring and validation of test results. Also, there is typically a delay between when an assessment is given to a child and when the teacher is able to receive and review the results of the assessment, making its utility for planning instruction less than ideal.

Early Reading Assessments

To link assessment with instruction effectively, early reading assessments need to be both formative and individualized. One such approach is diagnostic assessment, which is typically administered by a reading specialist rather than a classroom teacher, given the time requirements for administration. Examples include the *Diagnostic Assessment of Reading* (Roswell & Chall, 1992), *Developmental Reading Assessment* (Beaver, 1999), *Fox in the Box* (CTB/McGraw-Hill, 2000), and the *Qualitative Reading Inventory-II* (Leslie & Caldwell, 1995). Another approach is to collect authentic assessments designed to "reflect the actual learning and instructional activities of the classroom and out-of-school worlds" (Hiebert, Valencia, & Afflerbach, 1994). Examples of authentic assessment systems are: the *Observation Survey* (Clay, 1993); South Brunswick, *New Jersey, Schools' Early Literacy Portfolio* (Salinger & Chittenden, 1994); *The Primary Language Record* (PLR; Barr, Ellis, Tester, & Thomas, 1988) and *The California Learning Record* (CLR; Barr, 1995); *The Primary Assessment of Language Arts and Mathematics* (PALM; Hoffman, Roser, & Worthy, 1998); *The Work Sampling System* (Meisels, 1997); and *Phonological Awareness and Literacy Screening* (PALS; Invernizzi & Meier, 1999).

The problems with these assessment approaches are that (a) most lack adequate reliability and validity and (b) all are very labor intensive to administer, making them simply unfeasible for progress monitoring. A more feasible approach has been to create screening tools that allow teachers and schools to discriminate those children who are at risk for reading failure from those who are at low risk for reading difficulties. Only children who appear to have risk characteristics receive further assessment. One such assessment is the *Texas Primary Reading Inventory* (TPRI; Foorman et al., 2005). With this assessment, only students who are at risk receive the full inventory, which is administered 3 times per year in Grades K-3. Even so, this assessment is still labor intensive for the teacher.

Perhaps the most visible approach to linking assessment data with instruction has been Continuous Progress Monitoring (CPM) using the model of Curriculum-Based Measurement (CBM: Fuchs, et al, 1984). Teachers use Curriculum-Based Measurement to index student progress over time. This is accomplished through the administration of short tests, or probes, administered at least once monthly, that sample critical areas that predict later performance. The relevant student performance information is the rate of change, displayed in graphic form, which illustrates each student's past, present, and probable future growth. More importantly, it alerts the teacher when a particular student is not making adequate progress, so that the instructional program can be modified.

The popular *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS: Good & Kaminski, 2002) is built on of the Curriculum-Based Measurement model. The problem with current Curriculum-Based Measurement assessment is that it is very cumbersome for teachers to utilize (DiGangi, Jannasch-Pennell, Yu, Mudiam, 1999; Fuchs, Hamlet, & Fuchs, 1995). Presently, teachers have to physically administer probes to each child individually and either graph data by hand or enter data into a website (in the case of *DIBELS*) to access results. In order to reduce the burden on teachers, the authors of *DIBELS* have recently experimented with a hybrid model in which students are screened, and only students not meeting benchmark standards are then assessed continuously. The remaining students are only assessed at benchmark points (beginning, middle, and end of year). Even with these concessions, teachers find *DIBELS* onerous. Also, *DIBELS* does not measure important constructs of vocabulary and comprehension.

Continuous Progress Monitoring

ISIP Early Reading grows out of the model of Continuous Progress Monitoring (CPM) called Curriculum-Based Measurement (CBM). This model of CPM is an assessment methodology for obtaining measures of student achievement over time by repeatedly sampling proficiency in the school's curriculum at a student's instructional level, using parallel forms at each testing session (Deno, 1985; Fuchs & Deno, 1991; Fuchs, Deno, & Marston, 1983). Parallel forms are designed to globally sample academic goals and standards reflecting end-of-grade expectations. Students are then measured in terms of movement toward those end-of-grade expectations. A major drawback to this type of assessment is that creating truly parallel forms of any assessment is virtually impossible; thus, student scores from session to session will reflect some inaccuracy as an artifact of the test itself.

Computer Application. The problem with most CPM systems is that they have been cumbersome for teachers to utilize (Stecker & Whinnery, 1991). Teachers have to physically administer the tests to each child individually and then graph data by hand. The introduction of handheld technology has allowed for graphing of student results, but information in this format is often not available on a timely basis. Even so, many teachers find administering the assessments onerous. The result has been that CPM has not been as widely embraced as would be hoped, especially within general education. Computerized CPM applications are a logical step to increasing the likelihood that continuous progress monitoring occurs more frequently with monthly or even weekly assessments. Computerized CPM applications using parallel forms have been developed and used successfully in upper grades in reading, mathematics, and spelling (Fuchs et al., 1995). Computerized applications save time and money. They eliminate burdensome test administrations and scoring errors by calculating, compiling, and reporting scores. They provide immediate access to student results that can be used to affect instruction. They provide information organized in formats that automatically group children according to risk and recommended instructional levels. Student results are instantly plotted on progress charts with trend lines projecting year end outcomes based upon growth patterns, eliminating the need for the teacher to manually create monitoring booklets or analyze results.

Computer Adaptive Testing

With recent advances in Computer Adaptive Testing (CAT) and computer technology, it is now possible to create CPM assessments that adjust to the actual ability of each child. Thus, CAT replaces the need to create parallel forms. Assessments built on CAT are sometimes referred to as "tailored tests" because the computer selects items for students based on their performance, thus tailoring the assessment to match the performance abilities of the students. This also means that students who are achieving significantly above or below grade expectations can be assessed to more accurately reflect their true abilities.

There are many advantages of using a CAT model rather than a more traditional parallel forms model, as is used in *DIBELS*. First, it is virtually impossible to create alternate forms of any assessment that are truly parallel. Thus, reliability from form to form will always be somewhat compromised. However, when using a CAT model, it is not necessary that each assessment be of identical difficulty to the previous and future assessments. Following a CAT model, each item within the testing battery is assessed to determine how well it discriminates ability among students and how difficult it actually is through a process called Item Response Theory (IRT) work. Once item parameters have been determined, the CAT algorithm can be programmed. Then, using this sophisticated computerized algorithm, the computer selects items based on each student's performance, selecting easier items if previous items are missed and harder items if the student answers correctly. Through this process of selecting items based on student performance, the computer is able to generate "probes" that have higher reliability than those typically associated with alternate formats and that better reflect each student's true ability.
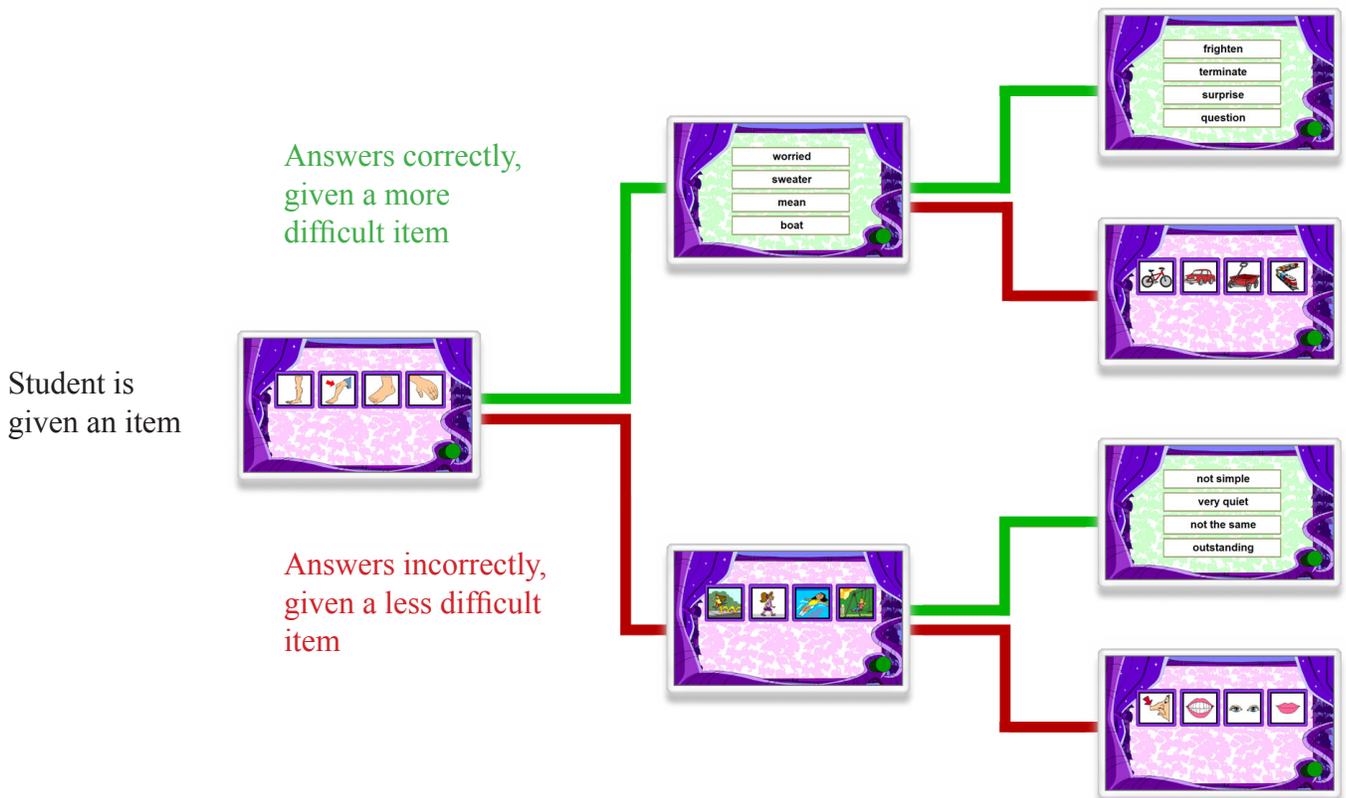
ISIP Early Reading Assessment Domains

ISIP Early Reading uses a CAT algorithm that tailors each assessment to the performance abilities of individual children while measuring progress in the five critical early reading skill domains of (a) phonemic awareness, (b) alphabetic knowledge and skills, (c) connected text fluency, (d) vocabulary, and (e) comprehension.

Phonemic Awareness

Phonemic awareness refers to the understanding that spoken words are comprised of individual sounds called phonemes. This awareness is important, because it underpins how sound-symbols in printed words map onto spoken words. Deficits in phonemic awareness characterize most poor readers, whether they are children, adolescents, or adults (at all levels of intelligence) and whether or not they are from economically disadvantaged or non-English speaking backgrounds (Share & Stanovich, 1995).

Alphabetic Knowledge and Skills

Alphabetic knowledge and skills include knowing the symbols or combinations of symbols used to represent specific phonemes (i.e., letter-knowledge) and using them to map print onto speech. The application of alphabetic knowledge and skills is exceedingly important, because these skills facilitate word recognition. Today, it is understood that reading problems for most children occur at the level of the single word because of faulty or incomplete alphabetic knowledge and skills. In fact, the best predictor of poor reading comprehension skills is deficient word recognition ability (Shaywitz, 1996; Stanovich, 1991; Vellutino, 1991). Furthermore, alphabetic reading skills, especially alphabetic decoding (i.e., sounding-out words), appear to account for individual differences in word recognition for both children and adults (Share, 1995).

Connected Text Fluency

Beyond phonological and alphabetic knowledge, children must be able to read connected text with relative ease if the meaning of that text is to be accessed and the development of mature comprehension strategies are to prosper (Torgesen, Rashotte, & Alexander, 2002). When fluency-building activities are utilized during instruction, children's fluency does increase (Torgesen et al., in press, 2001). Teachers need to know which children are not making desired gains in fluency if they are to know that fluency strategies need to be incorporated.

Vocabulary and Comprehension

The ultimate goal of all reading is to ensure that children comprehend what they read. Thus, there is increasing understanding that it is not enough to only teach children to decode words. Increasingly, there is a greater focus on the need to ensure that children possess an adequate vocabulary and comprehension strategies to allow them to process text for meaning. This is especially true for children from lower socioeconomic backgrounds and from households in which English in not the primary language. Teachers need to know (a) if children have vocabulary deficits that place them at risk for failing to comprehend what they read, (b) if instruction is having the desired effect of raising students' vocabulary knowledge, and (c) if students are making progress in comprehending increasingly challenging materials.

ISIP Early Reading Items

Within the ISIP Early Reading item bank, there is a large range of items, which span from easy to hard in each domain. At the lowest end, items were designed to be appropriate for students performing at levels

commensurate with beginning-Pre-K ability. On the high end, items are commensurate to approximately an eighth grade performance level. This wide range of items make ISIP Early Reading an appropriate measure for the full range of students, including students with special needs or who struggle and students who are high-achieving or gifted.

The use of CAT algorithms also creates efficiencies in test administration. The adaptive item algorithm allows the computer to adjust item difficulty while the child is taking the test, quickly zeroing in on ability level. Thus, the use of CAT algorithms reduces the amount of time necessary to accurately determine student ability.

Accuracy and Fluency

Within ISIP Early Reading, each subtest has both an accuracy component and a fluency component. Assessments that measure a student's accuracy and speed in performing a skill have long been studied by researchers. Such fluency-based assessments have been proven to be efficient, reliable, and valid indicators of reading success (Fuchs et al., 2001; Good, Simmons, & Kame'enui, 2001). Fluency in cognitive processes is seen as a proxy for learning, such that as students learn a skill, the proficiency with which they perform the skill indicates how well they know or have learned the skill. In order to be fluent at higher-level processes of reading connected text, a student will also need to be fluent with foundational skills. *DIBELS* is the most widely used early reading assessment that incorporates a fluency component into each of its subtests.

Because each of the subtests has a fluency component, the tests are brief. This makes it feasible to administer the subtests on a large scale with minimal disruption of instructional time. Numerous items are available for each subtest, making the subtests repeatable throughout the school year with many alternative forms.

Teacher Friendly

ISIP Early Reading is teacher friendly. The assessment is computer based, requires little administration effort, and requires no teacher/examiner testing or manual scoring. Teachers monitor student performance during assessment periods to ensure result reliability. In particular, teachers are alerted to observe specific students identified by ISIP Early Reading as experiencing difficulties as they complete ISIP Early Reading. They subsequently review student results to validate outcomes. For students whose skills may be a concern, based upon performance level, teachers may easily validate student results by re-administering the entire ISIP Early Reading battery or individual skill assessments.

Child Friendly

ISIP Early Reading is also child friendly. Each assessment session feels to a child like he or she is playing a fast-paced computer game called "Show What You Know." In the beginning of the session, an animated owl named Smart Owlex Treebeak enters the screen with his assistant, Batana White, a female bat. The owl announces to the child in a game show announcer voice, "It's time to play… Show What You Know!" A curtain pulls back to show the first game. The owl announces the game quickly, and the assessment begins. At the end of the assessment, the child sees an animated graph of progress. Each assessment proceeds in a similar fashion.

ISIP EARLY READING SUBTESTS

ISIP Early Reading measures progress in each critical component of reading instruction in a manner appropriate to the underlying domain. There are a total of 8 subtests that align to the 5 critical domains of reading, as shown in Figure 1. Of these subtests, 6 are built using a CAT algorithm, while 2 use parallel forms. Subtests that

tailor items using CAT include Phonemic Awareness, Letter Knowledge, Alphabetic Decoding, and Spelling, Vocabulary, and Reading Comprehension. Connected Text Fluency and Listening Comprehension are designed as parallel forms that measure end of grade level expectations

Domain	Subtest
Phonemic Awareness	Phonemic Awareness
Phonics	Letter Knowledge Alphabetic Decoding Spelling
Vocabulary	Vocabulary
Comprehension	Listening Comprehension Reading Comprehesnion
Fluency	Text Fluency

ISIP Early Reading Administration Format

ISIP Early Reading is presented to students using a game-like format. Students are never told that they are being given a test. Instead, they are told that they are playing a game called "Show What You Know."

The first time a student takes ISIP Early Reading, the computer will administer items that are defaulted based on the student's grade, unless the default setting is changed intentionally, as may be appropriate in special education settings. From the very first item, however, the CAT engine immediately begins to tailor the test to the individual student. As a result, students will only be administered subtests that are appropriate for their performance abilities. Within a classroom, students may have some variation in the exact subtest they are administered. However, scores reflect these differences (explained below). For example, students whose performance scores indicate that they are not yet reading words will not be asked to read connected text. Likewise, students whose performance scores indicate that they read connected text fluently and with comprehension will not be asked to complete letter knowledge and phonemic awareness tasks.

Listening Comprehension is administered only in Pre-K and Kindergarten. In first grade, Connected Text Fluency is administered only after students obtain a high enough score on Alphabetic Decoding to suggest that they can handle the task. Connected Text Fluency is administered to all students, beginning in second grade.

The table below presents the defaults for subtest administration for each grade level.

Grade	Subtest
Pre-Kindergarten	Phonemic Awareness Letter Knowledge Vocabulary
Kindergarten	Listening Comprehension*+ Phonemic Awareness Letter Knowledge Vocabulary
1st Grade	Phonemic Awareness Letter Knowledge Vocabulary Alphabetic Decoding Comprehension Spelling
2nd and 3rd Grade	Vocabulary Comprehension Spelling Connected Text Fluency

Rationale for Subtest Defaults by Grade

ISIP Early Reading follows a continuum of learning that, research indicates, is predictive of later reading success. Skills build upon skills, and the sequence of subtests builds upon prior subtests. As skills of lower-level difficulty are eliminated from the test battery, more difficult skills that rely on achievement of the prior skills are added.

Because ISIP Early Reading incorporates computer adaptive algorithms, students are administered items of increasing difficulty until either an appropriate level of ability is established or it is determined through other higher-level subtests that skill mastery has been achieved. Thus, defaults are only a starting point. Once ISIP Early Reading calibrates to the performance ability of a particular student, each subsequent test relies on the

previous calibrations to determine with which items to begin subsequent administrations.

Pre-K and Kindergarten. Kindergarten students require assessment of their growth in phonemic awareness, alphabetic knowledge and skills, and vocabulary. Fluency in letter names and sounds facilitates spelling, but these skills are usually not developed sufficiently to assess spelling ability. Their reading skills are also rarely sufficiently developed to usefully assess reading fluency and reading comprehension. In general, research has shown that phonological awareness and letter sound knowledge in Kindergarten are predictive of Grade 1 outcomes. For children at risk of reading difficulty due to poverty or language background, vocabulary is critical to reading success (Foorman, Anthony, Seals, & Maouzaki, in press; Snow et al., 1998; Dickinson & Tabors, 2001). Vocabulary assessments for Kindergarten students are mostly "tier 1" words and items to assess children's knowledge of prepositions and verbs of varying tense, since these classes of words are particularly difficult for young children.

Grade 1. It is important to continue to monitor students' development of phonemic awareness and alphabetic knowledge and skill, because struggling students may continue to have difficulty in these areas. The development of accurate and fluent decoding skills should be monitored, since these foundational skills for reading accuracy undergo major development. Word recognition at the beginning of Grade 1 has been found to be predictive of Grade 1 outcomes. Spelling has also been found to be a predictor of oral reading fluency. Vocabulary growth is important in the development of reading comprehension. As soon as students can demonstrate the ability to read connected text with reasonable accuracy and understanding, reading fluency (timed reading with meaning) should be monitored. Continued growth in vocabulary should be assessed, as well as reading comprehension.

Grade 2. In Grade 2, word reading continues to be a strong predictor of Grade 2 outcomes, with reading fluency and comprehension becoming increasing important predictors. Second graders need continued monitoring of their decoding abilities, because struggling students may still have difficulty in this area. Reading fluency is critical through second grade, since students must make strong growth in this skill to maintain grade level reading proficiency. The development of reading comprehension is dependent on fluency and vocabulary. Sight vocabulary must grow rapidly in second grade to keep pace with expected reading outcomes. Thus, continued growth in Spelling, Vocabulary and Reading Comprehension should be measured.

Grade 3. In Grade 3, reading fluency and comprehension are strong predictors of Grade 3 outcomes. The primary dimensions of reading growth that should be measured in third grade are reading fluency, reading comprehension, spelling and vocabulary.

Because reading fluency and comprehension are key predictors of later reading success, instructional recommendations are based upon consistency of risk levels across these subtests. Greater weight is placed on the higher-risk measure. Students with mixed results are typically recommended for strategic instruction.

Description of Each Subtest

Phonemic Awareness

The Phonemic Awareness subtest is comprised of 2 types of items: Beginning Sound and Phonemic Blending.

<u>*Beginning Sound*</u> assesses a student's ability to recognize the initial sound in an orally presented word. Four items appear on the screen at once. The narrator says the name of each picture as the box around it highlights. Then the student is asked to click on the picture that has the same beginning sound as the sound produced orally by the narrator. The student may move the mouse pointer over a picture to hear the picture name repeated.

Beginning Sound

Phonemic Blending assesses a student's ability to blend up to six phonemes into a word. Four items appear on the screen, with a box in the middle of the items that contains an animated side view of a head. The narrator says the name of each picture as the box around it highlights. The narrator says one of the words, phoneme by phoneme, as the animated head produces each sound. The student is asked to click on the picture showing the word that has been said phoneme by phoneme. The student may move the mouse pointer over a picture to hear the picture name repeated. The highest level is a mix of five- and six-phoneme words in order to give the test a top range.

Phoneme Blending
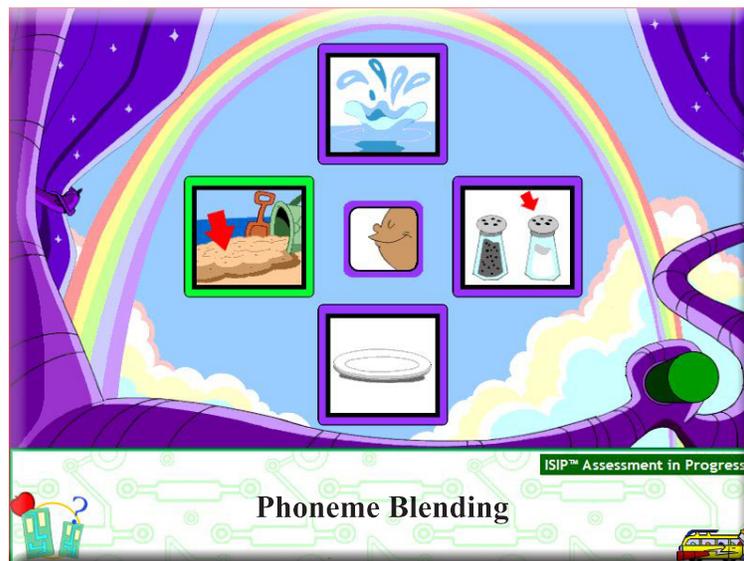
Letter Knowledge

Letter Knowledge represents the most basic level of phonics knowledge (i.e. whether students know the names and sounds represented by the letters of the alphabet). Letter knowledge is comprised of 2 types of items: recognition of letter names and recognition of letter-sound correspondences. It is important to note that only the most frequent letter-sound correspondences are included in this subtest. More complex elements such as variant spellings, diphthongs, vowel teams, and r-controlled vowels are embedded in the Alphabetic Decoding and Spelling subtests.

Letter Recognition is a measure of alphabetic principle that assesses how many letters a student can correctly identify in a minute. Five items, in a combination of both uppercase and lowercase letters, appear on screen at once. The student is asked to identify the symbol for the letter name that is orally produced by the narrator.

Letter Sound is a measure of alphabetic principle that assesses how many letter sounds a student can correctly identify in a minute. Five items, in a combination of both uppercase and lowercase letters, appear on screen at once. The student is asked to identify the symbol for the letter sound that is orally produced by the narrator.

Letter Sound/ Recognition
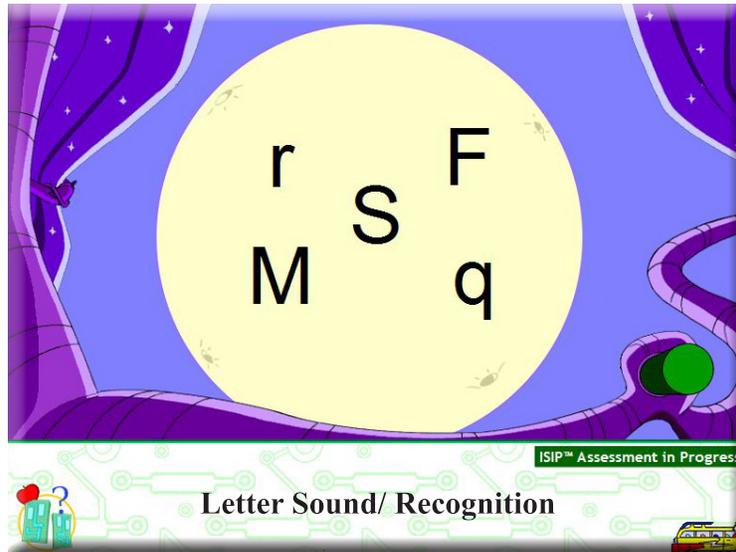
Alphabetic Decoding

Alphabetic Decoding measures the ability to blend letters into nonsense words in which letters represent their most common sounds. Nonsense words are used because students differ in their sight word recognition skills. By using nonsense words, the test more accurately assesses the ability to match letters to sounds and the ability to decode an unknown word when it is presented. For this subtest, four items appear on the screen. The student is asked to identify the non-word that is orally pronounced by the narrator. Items for this subtest have been carefully constructed to move from easier to harder, so that the subtest is appropriate across several grade levels.

The sequence of difficulty moves in the following manner: (1) two or three phoneme words composed of vc (vowel, consonant), cvc, or cv word types in which there is one to one letter-sound correspondence (e.g., *ib, maf, fe*); (2) three phoneme words that include digraphs (e.g., *thil*) or diphthongs (loib); (3) three phoneme words that include the cvce pattern (e.g., *bave*) and four or five phoneme words with one to one letter-sound correspondence (e.g., *cvcc – kest; cvccc – kests*); (4) four or five phoneme words with simple blends (e.g., *ccvc – stam, stams*) and four or five phoneme words in which some phonemes are not represented by one letter (e.g., *caims, crame*); (5) four or five phoneme words with complex blends (e.g., *cccvc – streg*) and simple 2 syllable words (e.g., *cvc/cvc – webbet; cv/cvc – tebet*).

Alphabetic Decoding
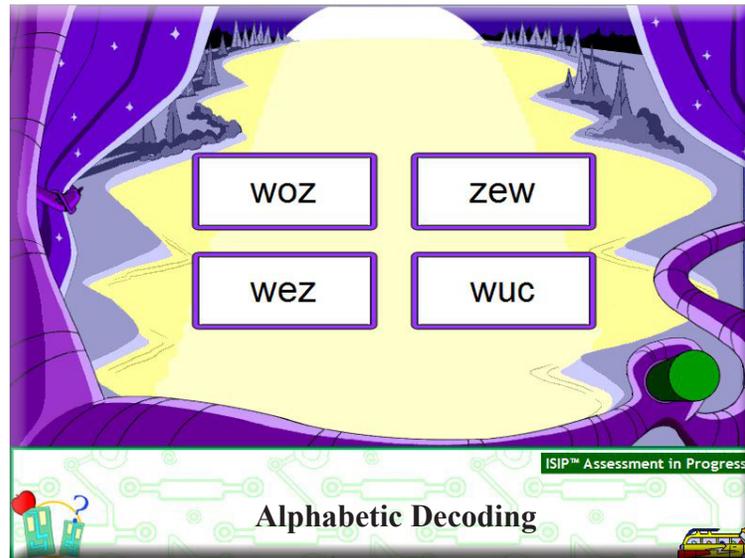
Spelling

Research has shown that learning to spell and learning to read rely on much of the same underlying knowledge, such the relationships between letters and sounds. Knowing the spelling of a word makes the representation of it sturdy and accessible for fluent reading (Ehri, 2000; Snow et al., 2005). The objective of the Spelling subtest is to determine if children are developing fully-specified orthographic representations of words. For each item, an array of letters appears on the screen, and the computer asks the child to spell a specific word using those letters. The child then spells the word by clicking on each letter. As each letter is selected, the word is formed on lines above the letter array. Items for this subtest have been carefully constructed to move from easier to harder, using the sequence of difficulty defined in Alphabetic Decoding. However, item parameters also include frequency of spelling patterns, with less frequent spelling patterns being considered more difficult. 200 spelling items spread across five levels of difficulty have been validated.

Spelling
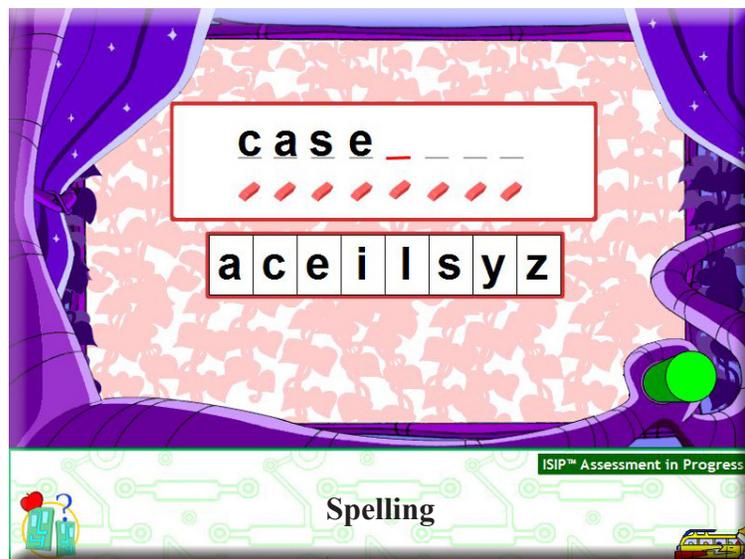
Connected Text Fluency

Connected Text Fluency measures a child's ability to read fluently with comprehension. This subtest is constructed in a very different manner than others. Rather than increasing text difficulty across time, the test assesses children on passages of equivalent difficulty to measure growth over time against a constant level of difficulty. Each of these passages was carefully written to conform to specific word level features, follow linear story grammar structure, and have readability according to a commonly accepted readability formula for end of grade level in each grade. In order to assess text reading on the computer, a maze task is utilized, in which every fifth or sixth word is left blank from the text. For each blank, the child is given 3 choices from which to choose the word that works in the sentence. It is the child's job to read the text, selecting correct maze responses for two minutes. This task has been shown to be highly correlated to measures of both fluency and comprehension and has high reliability and concurrent validity (Espin, Deno, Maruyama, & Cohen, 1989; Fuchs & Fuchs, 1990; Jenkins, Pious, & Jewell 1990; Shinn, Good, Knurson, Tilly, Collins, 1992).
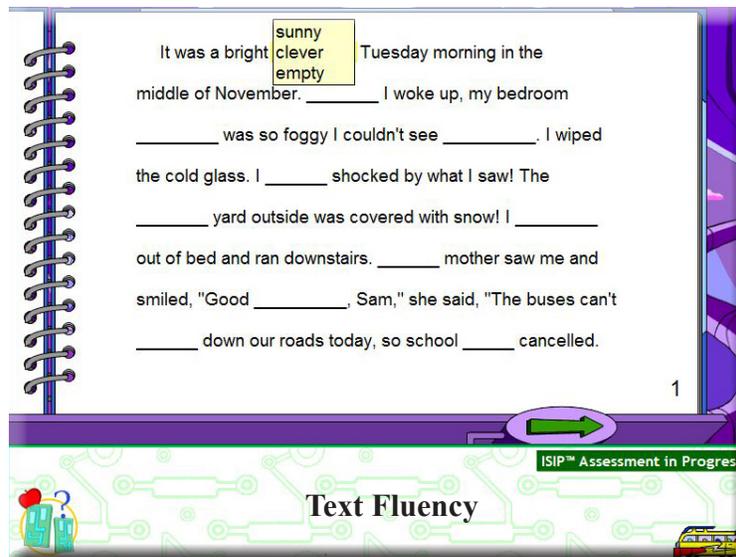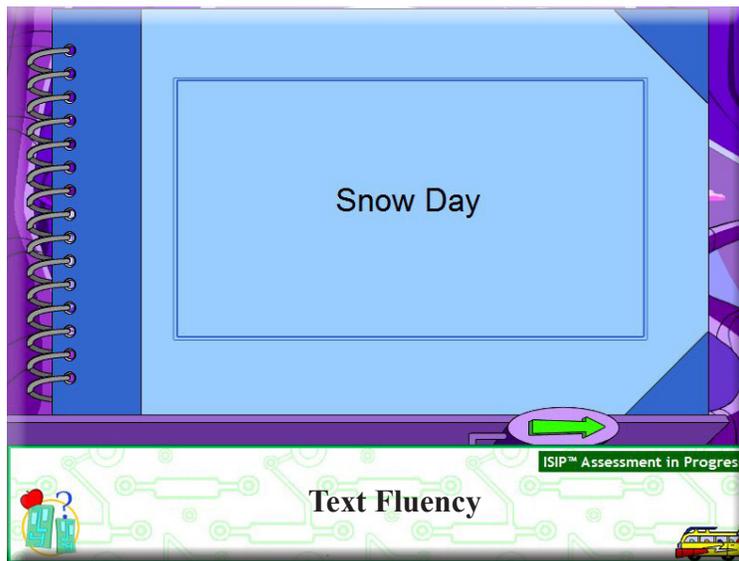
Vocabulary

The vocabulary subtest is designed to test a child's knowledge of "tier 2" vocabulary words, meaning words that are frequently encountered in text but are not typically used in daily conversation (Beck, McKeown, & Kucan, 2002). There are two formats: Pictures and Synonyms.

<u>Picture Items</u>. On picture items, pictures appear on the screen. The narrator asks the student to identify the picture that best illustrates the word that is orally produced by the narrator.

<u>Synonym Items</u>. To establish the upper bound of vocabulary development, an alternative synonym format is used. Four words appear on screen. The student is asked to identify the word that has the same or similar meaning as a target word pronounced by the narrator. The narrator says each of the four word choices as the box around it highlights.

Comprehension

In this subtest, children are assessed on their ability to read and understand grade-leveled sentences and paragraphs. This is accomplished through matching sentences and pictures and sentence completion tasks.

Matching Sentences and Pictures. Matching sentences and pictures assesses a student's knowledge of semantic and syntactic information where pictures can support their reading. In this task, a sentence and four pictures appear on the screen. The student reads the sentence and identifies the picture that best illustrates the sentence meaning.

Sentence Completion. Sentence completion measures a student's ability to use word meanings and word order to understand a sentence. In this task, a sentence, sentences, or a paragraph appears on screen. One word is missing from the text. The student reads the text and must choose, from four choices, the word that best completes the text.
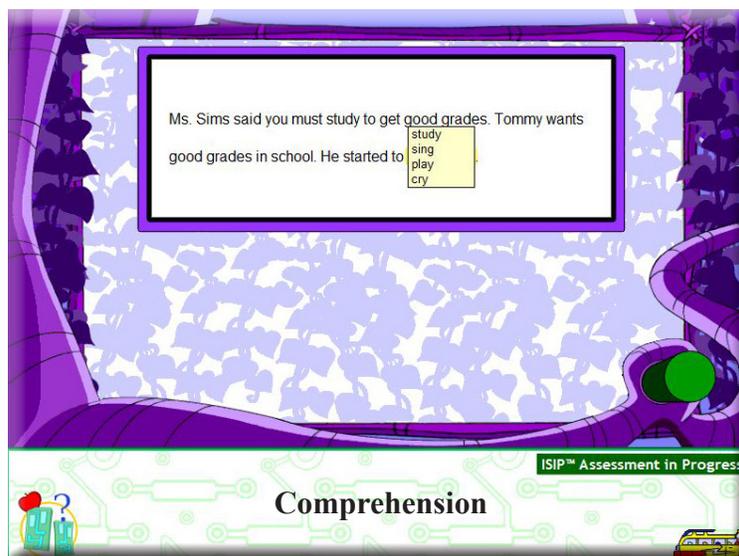
The ISIP Early Reading Link to Instructional Planning

ISIP Early Reading provides continuous assessment results that can be used in recursive assessment-instructional decision loops. First, ISIP Early Reading identifies students in need of support. Second, validation of student results and recommended instructional levels can be easily verified by re-administering assessments, increasing the reliability of scores. Teachers can assign assessments to individual students at the istation website at www.istation.com. The student logs in to the assessment, and it is automatically administered.

Third, the delivery of student results facilitates the evaluation of curriculum and instructional plans. The technology underlying ISIP Early Reading delivers real-time evaluation of results and immediate availability of reports on student progress upon assessment completion. Assessment reports automatically group students according to level of support needed as well as skill needs. Data is provided in both graphical and detailed numerical format on every measure and at every level of a district's reporting hierarchy. Reports provide summary and skill information for the current and prior assessment periods that can be used to evaluate curriculum, plan instruction and support, and manage resources.

At each assessment period, ISIP Early Reading automatically alerts teachers to children in need of instructional support through email notification and the "Priority Report." Students are grouped according to instructional level and skill need. Links are provided to teacher-directed plans of instruction for each instructional level and skill category. There are downloadable lessons and materials appropriate for each group. When student performance on assessments is below the goal for several consecutive assessment periods, teachers are further notified. This is done to raise teacher concern and signal the need to consider additional or different forms of instruction.

A complete history of Priority Report notifications, including the current year and all prior years, is maintained for each child. On the report, teachers may acknowledge that suggested interventions have been provided. A record of these interventions is maintained with the student history as an Intervention Audit Trail. This history can be used for special education Individual Education Plans (IEPs) and in Response to Intervention (RTI) or other models of instruction to modify a student's instructional plan.

In addition to the recommended activities, Reading Coaches and Teachers have access to an entire library of teacher-directed lessons and support materials at www.istation.com. Districts and schools may also elect to enroll students in istation's computer-based reading and intervention program, The Imagination Station. This program provides individualized instruction based upon ISIP Early Reading results. Student results from The Imagination Station are combined with ISIP Early Reading results to provide a deeper student profile of strengths and weaknesses that can enhance teacher planning.

All student information is automatically available by demographic classification and by specially designated subgroups of students that need to be monitored.

A year-to-year history of ISIP Early Reading results is available. Administrators, principals, and teachers may use their reports to evaluate and modify curriculum, interventions, AYP progress, the effectiveness of professional development, and personnel performance.

CHAPTER 2

ISIP-Early Reading Administration

The specific directions for administering each of the subtests is presented in this section. These directions represent standardized procedures that when followed will help to ensure both test reliability and validity from classroom to classroom, teacher to teacher and school to school. Information that describes the students experience in each subtest as well as information available to Administrators, Principals and Teachers after completion of the assessments is also included.

Teacher and Lab Manager Preparation

Prior to the Initial Administration of ISIP-ER:

1. Enter student's names and their unique District ID numbers at www.istation.com. Student ID numbers are encrypted to prevent interception or identification of student information.
2. After creating and processing your student accounts, print the student's login cards. Place the login cards in a file box near the computers in the lab and/or classroom. Log in cards should be easily accessible to students.
3. Inspect all equipment to be used (computers and headphones) to ensure that they are operable. Check audio volume on computers prior to administration of the test. Check computers to ensure that they have access to ISIP-ER assessments. The assessment program can be easily downloaded by the click of a button from the istation website at www.istation.com.
4. Prior to testing, become familiar with the tests to be administered and test formats.
5. Make sure the physical conditions in the testing location are satisfactory. There should be adequate lighting for all students and students should be able to be seated so that there is enough space between them. Consider posting a "Testing – Do Not Disturb" sign on the classroom or lab door if the testing location is in a high traffic area or prone to interruption by other students. If the test group will exceed 10 students, it is recommended that arrangements for a proctor (lab manager as an example to assist the teacher) be made to assist in the test administration observation.
6. For first time users, ensure that students have sufficient proficiency in this medium. Students must be able to move a mouse pointer to an object on screen and click with the left mouse button. Early elementary students should have no difficulty with this task. ISIP-ER does provide, prior to the first assessment, a practice activity that is unrelated to the assessments that allows the student to practice point and click skills. Although only point and click computer skills are necessary to complete the assessments, some users may

find it appropriate to provide students without prior access to computers some instruction in basic computer terms, components (keyboard and mouse) and computer use skills prior to assessment administration.

Once the initial administration of ISIP-ER is complete, subsequent administration of tests should require minimal preparation, including the inspection of computers and headphones to ensure they are operable.

Materials

Only student login cards, operable headphones and computers with internet access are required for test administration. There are no CD-ROMs to install or school-based servers to maintain. Administration for schools is virtually non-existent. ISIP-ER is downloaded from the istation website at www.istation.com. After installation, any number of simultaneous students can be supported in ISIP-ER generally using the bandwidth of a single web surfer. In the event that the school's Internet connection is lost, ISIP-ER continues to function normally and will synchronize with istation servers when the Internet connection is restored. Since ISIP-ER is delivered through the Internet, enhancements and modifications are provided to users transparently without a service call.

Test Delivery

A summary of subtest is included under the Section entitled Description of ISIP-ER subtests. ISIP-ER provides for monthly assessment of early reading skills. Assessments can be run more frequently by teacher assignment on the istation web site at www.istation.com.

Upon student login to ISIP-ER during each assessment period, ISIP-ER will automatically deliver all assessments appropriate for that student for that time of year. The entire battery of subtest runs seamlessly, back to back, without user or teacher manipulation. Tests are automatically scored by the program and student results are immediately available to the teacher on the istation web site at www.istation.com.

Administration Guidelines

1. Orient the student to the assessment area and explain the assessment process and the setting before the test is begun. Encourage a positive attitude toward the test.

SAY *Today we will play some reading games on the computer that will show how well you are learning to read. Smart Owlex Treebeak and his friend Batana White will help you. It is important that you listen carefully, follow the instructions and do your very best!*

2. Instruct the students to work independently and to quietly raise their hands if they need assistance.

SAY *This is a test so keep your eyes on YOUR computer. Work as quickly as possible WITHOUT guessing. If you need help or when you have finished the test, raise your hand.*

3. Pass out login cards and assist the students as they login to ISIP-ER. For first time use, consider modeling the login steps on a computer or a projection screen. The test will begin as soon as the student presses OK on the login screen.

SAY *Let's get started.*
In the first blank box, type your user name.
In the second blank box, type your password.
Put your headphones on and Click on OK.

972.643.3440 • fax: 972.643.3441 • www.istation.com

4. Observe and monitor student performance to ensure validity and reliability of test results.

If student's need assistance or must take a break, FIRST press the PAUSE key on the keyboard. This will interrupt the assessment currently being given without penalty to the student. The assessments are timed activities. Failure to PAUSE will result in the assessment continuing to run while assistance is being provided. When the student is ready to return to the assessment, press the PAUSE key again. The assessment will automatically return to the same question where the student left off.

Be aware of fatigue and other behavioral issues such as students losing interest, students that are easily distracted, students exhibiting frustration, and students that are not attempting to answer questions or are not trying. All of these behaviors often invalidate results. If any of these behaviors are noted, interrupt the student activity.

To assist students:
a) Ask the student to remove the headphones.
b) Sit with the student at the computer.
c) Do NOT provide answers or suggestions on how to respond to questions.
d) If students appear to have lost interest or are not trying
    SAY   *Remember, this is a test. It is important that you follow the instructions and do your very best.*

e) If the student appears frustrated or has asked for assistance, ask the student to repeat the instruction for the assessment.

If the student responds correctly,

    SAY   *That's right. Follow the directions and answer each question. Remember this is a test, be sure to try hard and do your best.*

If the student responds incorrectly, provide guidance and have the student demonstrate understanding of the directions before they restart the assessment.

5. Disruptive behavior should not be tolerated. Students that are disrupting other students and their behavior is not corrected by intervention should be removed from the testing area. Computer time should be rescheduled so that the student has the opportunity to complete the assessment.

6. It is preferable but not required that the assessments be completed in a single session. Allow students to continue working in the assessment as long as they are being productive. The time allotment recommended for each assessment period is twenty minutes.

7. Some students will finish earlier than others. When they are finished give them a book to read.

8. Document any absent students and schedule time for make up assessments.

9. Adhere to any accommodations for special education or limited English proficiency students. Accommodations should be made on an individual student basis and should take into consideration the needs of the student and whether the student normally receives accommodations.

        972.643.3440 • fax: 972.643.3441 • www.istation.com

Some accommodations to consider:

For students with hearing difficulties, adjust the computer volume.

For students with sight difficulties, arrange for use of a larger computer monitor.

Oral instruction may be provided for the activities if necessary, including instructions in sign language.

10. Review test reports. If student results do not match teacher expectations or understanding of current skill knowledge, the entire assessment or individual skill probes may be repeated on a different day with different probes. Go to www.istation.com and assign skill(s) validation probes to the student in question. On the next student login, the validation probe(s) will run. The higher of the two scores will be used as the current period indicator of the child's skill level.

ISIP-ER Protocols

This section describes subtests for ISIP-ER. Samples of some of the assessments in each grade level, Pre-Kindergarten through Grade 3, are provided, followed by an explanation of what students are asked to do in each subtest. The explanations include specific directions as spoken by the online game show host, Smart Alex Treebeak, and the off-screen Narrator.

Every time a new assessment is played for a student, ISIP-ER automatically plays a test warm-up. The test warm-up includes all directions for the assessment, models completion of one or more items and allows the student to complete practice items. Narrator correction and feedback are provided on student interactions on all practice items.

On both warm-up activities and the assessment, students are also able to self monitor progress in a fun and engaging manner. Audio prompts are used to distinguish correct and incorrect answers. For incorrect answers, a "boing" is used. For correct answers, a "ping" is used. At the conclusion of each subtest, the student result is presented in graphical format along with prior results. Efforts are praised and students are encouraged to "beat" their high score.

For a new high score:

Smart Owlex Treebeak: *Congratulations!*

Batana White: *That's a new high score!*

For the same or a lower score:

Smart Owlex Treebeak: *Good job!*

Batana White: *I bet you can do better next time.*

Smart Owlex Treebeak: *To be a master at this game, you need to score way up here.*

Batana White: *Next time, try to beat your high score.*

During each assessment, student progress is monitored and prompts that encourage student efforts are provided. Prompts vary based upon the level of performance observed.

After three incorrect responses:

Narrator: *Pay attention, go as fast as you can and do your best!*

After repeated patterns of incorrect responses:

Narrator: *No. That is not right. This time go as fast as you can without guessing. Choose the answer that makes the most sense. Let's try another one.*

No. Are you trying? It is important that you do your best. Let's try another one.

No. Slow down. Take your time. Let's try another one.

Beginning Sound

In the *Beginning Sound* subtest, four items appear on the screen at once. The narrator says the name of each picture, as the box around it highlights. Then students are asked to click on the picture that has the same beginning sound as the sound produced orally by the narrator. The narrator then says one of the initial sounds. If words used are unfamiliar vocabulary for the student, the student may move the mouse over the picture and the narrator will repeat the word associated with the picture.

STUDENT DIRECTIONS

FOR WARM–UP

Modeled instruction
Smart Owlex Treebeak: *In this game you are going to find the picture that begins with a sound.*

Listen carefully to the instructions.

Narrator: *You are going to see some pictures. I will say their names. DOG, MOON, LOCK, RUG. You are going to hear something like this. "Click on the picture that begins with the /m/ sound. You'll move your mouse until the arrow is on the picutre that begins with the sound the narrator says. Then click the mouse button.*

Note: As instruction is provided, arrows on screen model student behavior. Student Practice

Narrator: *Now let's practice. RAT, SUN, PIG, DICE. Click on the picture that begins with the /p/ sound. /p/*

If student gives incorrect answer:

Narrator: *(boing)*   *No. Pig begins with the /p/ sound. Try again. (Last instructions given by Narrator are repeated.) Note. The student must answer correctly to move on.*

972.643.3440 • fax: 972.643.3441 • www.istation.com

If students gives correct answer:

Narrator: *(ping)* *Yes. Pig begins with the /p/ sound. Let's do another one.*

If student does not respond after five seconds:

Narrator: *(boing)* *You have five seconds to answer. Try again.*
(Last instructions given by Narrator are repeated.)

Note: The student must answer correctly to move on.

Narrator: *Let's try another one. CAT, BALL, DUCK, MAP. Click on the picture that begins with the /m/sound. /m/*

If student gives incorrect answer:

Narrator: *(boing)* *No. MAP begins with the/m/ sound. Try again.*
(Last instructions given by Narrator are repeated.)

Note: The student must answer correctly in order to move on.

If students gives correct answer:

Narrator: *(ping)* *Yes. MAP begins with the /m/ sound.*

If student does not respond after five seconds:

Narrator: *(boing)* *You have five seconds to answer. Try again.*
(Last instructions given by Narrator are repeated.)

Note: The student must answer correctly to move on.

Smart Owlex Treebeak: *Good JOOO-OO-OOOB!*

FOR ASSESSMENT

Smart Owlex Treebeak: *It's time to show what you know about the beginning sounds in words. Here are some pictures*
(The Narrator will say some words for these pictures).
Click on the pictures that the narrator says the beginning sound for. Pay attention. Go as fast as you can and do your best! Hoo, Hoo, Hoo!

If student gives correct answer:

Narrator: *(ping)* There is no narrator response. Student response is scored as correct and the next item is presented.

972.643.3440 • fax: 972.643.3441 • www.istation.com

If student gives incorrect answer:

Narrator: *(boing)* *No. "Target" begins with the /"the target"/ sound.*
Student response is scored as incorrect and next item is presented.

If student does not respond after five seconds:

Narrator: *(boing)* *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 5 seconds to respond.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

Phonemic Blending

In *Phonemic Blending* four items appear on the screen, with a box in the middle of the items that contains an animated side view of a head. The narrator says the name of each picture, as the box around it highlights. The narrator says one of the words phoneme by phoneme, as the animated head produces each sound. The child is asked to click on the picture showing the word that has been said phoneme by phoneme. If words used are unfamiliar vocabulary for the student, the student may move the mouse over the picture and the narrator will repeat the word associated with the picture.

STUDENT DIRECTIONS

FOR WARM-UP

Modeled Instruction

Smart Owlex Treebeak: *In this game you will find a picture for the letter sounds the narrator says. Listen carefully to the instructions.*

Narrator: *You are gong to see some pictures. I will say their names. RUG, DOG, LOCK, MOON. I will tell you something like this: /m/ /oo/ /n/. You put the sounds together and decide which picture I named.*

You will use the mouse to move the pointer until it is on the correct picture name. Then you will click your mouse button.

Note: As instruction is provided, arrows on screen model student behavior.

Student Practice

Narrator: *Now let's practice. You have 5 seconds to answer. SUN, PIG, RAT, LOCK. Click on the picture for the word you make by blending the sounds together. /s/ /u/ /n/.*

If student gives incorrect answer:

Narrator: *(boing)* *The sounds /s/ /u/ /n/ blended together make the word SUN. Try again.*

Note: student must answer correctly in order to move on.

If student gives correct answer:

Narrator: *(ping)*   *That's right. The sounds /s/ /u/ /n/ blended together make the word SUN.*

If student does not respond in five seconds:

Narrator: *(boing)*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 5 seconds to respond.) Note: student must answer correctly in order to move on.

Narrator: *Let's do another one. DUCK, DOG, CAT, PIE. Click on the picture for the word you make by blending these sounds together. /d/ /o/ /g/.*

If student gives incorrect answer:

Narrator: *(boing)*   *The sounds /d/ /o/ /g/ blended together make the word DOG. Try again.*
(Last instructions given by Narrator are repeated.) Note: student must answer correctly in order to move on.

If student gives correct answer:

Narrator: *(ping).*   *That's right. The sounds /d/ /o/ /g/ blended together make the word DOG.*

If student does not respond in five seconds:

Narrator: *(boing)*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 5 seconds to respond.)

Note: Student must answer correctly in order to move on.

Smart Owlex Treebeak: *Good job! Woo hoo hoo!*

FOR ASSESSMENT

Smart Owlex Treebeak: *It's time to show what you know about blending sounds together to make words. In this game you will click on the picture of the word made by blending letter sounds together.*
Click on as many of the correct pictures as you can. Pay attention. Go as fast as you can and do your best. Hoo Hoo Hoo!

If student gives correct answer:

Narrator: *(ping)*   *There is no narrator response. Student response is scored as correct and the next item is presented.*

    972.643.3440 • fax: 972.643.3441 • www.istation.com

If student gives incorrect answer:

Narrator: *(boing)* *No. The sounds /x/ /x/ /x/ blended together make the word "the Target."*
Student response is scored as incorrect and next item is presented.

If student does not respond after five seconds:

Narrator: *(boing)* *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 5
seconds to respond.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The
activity timer is stopped during the re-try.

Letter Recognition

The Letter Recognition subtest asks students to identify the symbol for a letter's name or sound. The computer
randomly presents items representing various upper and lower case letters. Five letters appear on the screen for
each item. The narrator asks the student to click on a particular letter.

STUDENT DIRECTIONS

FOR WARM-UP

Modeled Instruction

Smart Owlex Treebeak: *In this game you will find letters. Listen carefully to the instructions.*

Narrator: *You are going to see some letters. I will tell you something like this. Click on the
letter A." You will use your mouse to move the pointer until it is on the
correct letter and then press the mouse button.*

Note: As instruction is provided, arrows on screen model student behavior.

Student Practice

Narrator: *Now let's practice. You have 5 seconds to answer. Click on the letter b.*

If student gives incorrect answer:

Narrator: *(boing)* *No, this is the letter b. Try again.*
(Last instructions given by Narrator are repeated.) Note: student must answer
correctly to move on.

If student gives correct answer:

Narrator: *(ping)* *Yes, that's the letter b.*

972.643.3440 • fax: 972.643.3441 • www.istation.com

If student does not respond in four seconds:

Narrator: *(boing)*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 4 seconds to respond.) Note: student must answer correctly in order to move on.

Smart Owlex Treebeak: *Excellent! Woo, hoo, hoo.*

FOR ASSESSMENT

Smart Owlex Treebeak: *Okay, player. It's time to show what you know about letters. Here are some letters. The Narrator will say letter names. Click on as many correct letters as you can before the game ends. Pay attention. Go as fast as you can and do your best. Woo hoo hoo!*

If student gives correct answer:

Narrator: *(ping)*   There is no narrator response. Student response is scored as correct and the next item is presented.

If student gives incorrect answer:

Narrator: *(boing)*   *No. This is the letter "target letter."* Student response is scored as incorrect and the next item is presented.

If student does not respond after four seconds:

Narrator: *(boing)*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 4 seconds to respond.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

Alphabetic Decoding

The objective of the Alphabetic Decoding subtest is for children to correctly identify non-words that are pronounced by the narrator. The narrator pronounces a non-word and the children choose from four items that appear on the screen. In this subtest, letters represent their most common sounds.

STUDENT DIRECTIONS

FOR WARM UP

Modeled Instruction and Student Practice

Smart Owlex Treebeak: *In this game you will read and find made-up words. Listen carefully.*

     972.643.3440 • fax: 972.643.3441 • www.istation.com

Narrator: *I will say a made-up word. You will sound them out to find the right answer.*
I'm going to help with the first one. DAP, DARZ, DOS, DAZ. Click on DOS...DOS.

If student gives incorrect answer:

Narrator: *(boing)*   *No. This is DOS. /d/ /o/ /s/. Try again.*
(Last instructions given by Narrator are repeated.) Note: student must answer correctly in order to move on.

If student gives correct answer:

Narrator: *(ping)*   *Yes. This is DOS. /d/ /o/ /s/.*

If student does not respond in four seconds:

Narrator: *(boing)*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 4 seconds to respond.)

Note: Student must answer correctly in order to move on.

Smart Owlex Treebeak: *Very good. Let's try another one.*

Narrator: *HOM, HAK, HOS, HOL. Click on HOM...HOM.*

If student gives incorrect answer:

Narrator: *(boing)*   *No. This is HOM. /h/ /o/ /m/. Try again.*
(Last instructions given by Narrator are repeated.) Note: student must answer correctly in order to move on.

If student gives correct answer:

Narrator: *(ping)*   There is no narrator response. Student response is scored as correct and the next item is presented. *Yes. This is HOM. /h/ /o/ /m/.*

If student does not respond in four seconds:

Narrator: *(boing)*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 4 seconds to respond.) Note: Student must answer correctly in order to move on.

FOR ASSESSMENT

Smart Owlex Treebeak: *Woo, hoo. Hoo. It's time to show what you know about reading words. The narrator will say made-up words. You will click on the made-up word the Narrator says. Click on as many made-up words as you can before the game ends. Pay attention. Go as fast as you can and do your best!*

     972.643.3440 • fax: 972.643.3441 • www.istation.com

Narrator: *Click on "TARGET WORD".."TARGET WORD".*

If student gives incorrect answer:

Narrator: *(boing)* *No. This is "target word."* Response is scored as incorrect and next item is presented.

If student gives correct answer:

Narrator: *(ping)* There is no narrator response. Student response is scored as correct and next item is presented.

If student does not respond in four seconds:

Narrator: *(boing)* *Time is up. Try again.* (Last instructions given by Narrator are repeated and student has an additional 4 seconds to respond.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

Comprehension

The objective of the Comprehension subtest is for children to correctly match sentences and pictures and complete sentences to measure their ability to use semantic, syntactic, word meanings and word order to gain meaning.

STUDENT DIRECTIONS

FOR WARM UP

Modeled Instruction for Grade 1

Narrator: *In this game, you will answer two kinds of questions. First, you will find the picture that goes with the sentence. Let's practice.*

Read this sentence. (The sentence "See the cat." appears on screen with images for a cat, a man and a cap.)

Look for the picture of a cat and click on it.

Note: As instruction is provided, an arrow models student behavior.

Student Practice for Grade 1

Narrator: *Now you try one.* (The sentence "See the map." appears on screen with images for a map, a man, and a girl). *Click on the sentence that goes with the picture.*

972.643.3440 • fax: 972.643.3441 • www.istation.com

If student gives incorrect answer:

Narrator: *(boing)*   *No. This is the picture that goes with sentence. Try again.* (Last instructions given by Narrator are repeated.) Note: student must answer correctly in order to move on.

If student gives correct answer:

Narrator: *(ping)*   *Yes. This is the picture that goes with the sentence.*

If student does not respond in 8 seconds:

Narrator: *(boing)*   *Time is up. Try again.* (Last instructions given by Narrator are repeated and student has an additional 8 seconds to respond.)

Note: Student must answer correctly in order to move on.

FOR ASSESSMENT

Smart Owlex Treebeak: *Woo, hoo. hoo. It's time to show what you know about reading words. A sentence will appear. You will click on the picture that goes with the sentence. Complete as many as you can before the game ends. Pay attention. Go as fast as you can and do your best!*

Narrator: *Click on the picture that goes with the sentence.*

If student gives incorrect answer:

Narrator: *(boing)*   *This is the picture that goes with the sentence.* Student response is recorded as incorrect and next item is presented.

If student gives correct answer:

Narrator: *(ping)*   There is no narrator response. Student response as recorded as correct and the next item is presented.

If student does not respond in 20 seconds:

Narrator: *(boing).*   *Time is up. Try again.*
(Last instructions given by Narrator are repeated and student has an additional 8 seconds to respond.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

FOR WARM UP

Modeled Instruction for Grades 1, 2 and 3.

Narrator: *Next, you will find the word that best completes the sentence. Let's*

972.643.3440 • fax: 972.643.3441 • www.istation.com

practice. (The sentence " The dog begs for a _____." appears on screen. Menu options for the blank in the sentence are bone, smile, cake).

Narrator: *Point at the blank with the mouse, then click on the word that best completes the sentence. The dog begs for a bone. The word BONE best completes the sentence.*

Note: as instruction is provided, an arrow demonstrates student behavior.

Student Practice for Grades 1, 2 and 3

Narrator: *Now its your turn.* (The sentence "Mom packed my _____." appears on screen. Menu options for the blank in the sentence are lunch, arm, door. *Click on the word that best completes the sentence.*

If student gives incorrect answer:

Narrator: *(boing)* *No. Mom packed my lunch. The word LUNCH is the best choice for the sentence Try again.* (Last instructions given by Narrator are repeated.)

Note: student must answer correctly to move on.

If student gives correct answer:

Narrator: *(ping)* *Yes. Mom packed my lunch. The word LUNCH is the best choice for the sentence.*

If the student does not respond in eight seconds:

Narrator: *(boing)* *Time is up. Try again.*
(Last instructions given by the narrator are repeated).

Note: student must answer correctly to move on.

FOR ASSESSMENT
Smart Owlex Treebeak: *Woo, hoo. hoo. It's time to show what you know about reading words. A sentence will appear with a blank. Your job will be to choose the word that best completes the sentence. Complete as many sentences as you can before the game ends. Pay attention. Go as fast as you can and do your best!*

Narrator: *Read the sentence. Move the mouse to the blank line and choose the word that best completes the sentence.*

If student gives incorrect answer:

Narrator: *(boing)* *No. Mom packed my lunch. The word LUNCH is the best choice for the sentence.* Student response is scored as incorrect and the next item is presented.

If student gives correct answer:

Narrator: *(ping)* There is no narrator response. Student response is scored as correct and the next item is presented.

972.643.3440 • fax: 972.643.3441 • www.istation.com

<u>If the student does not respond in 25 seconds:</u>

Narrator:　　　*(boing)*　　　*Time is up. Try again.* (Last instructions given by the narrator are repeated).

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

Text Fluency

Text Fluency is constructed in a very different manner than the other subtests. Children are assessed on their skills in reading text with meaning in a specified period of time. In order to assess text reading on the computer, a maze task is utilized in which every 5th to 8th word of grade-leveled stories is left blank from the text. The child is given 3 choices for each blank from which to choose the word that works in the sentence. This task has been shown to be highly correlated to measures of both fluency and comprehension.

STUDENT DIRECTIONS

FOR WARM UP

Modeled Instruction

Smart Owlex Treebeak:　　*It's time to show what you know by reading a story. Listen carefully to the instructions.*

Narrator:　　*In this game you will read a story as fast as you can without guessing. As you read, you will get to places where a word is missing. Your job will be to fill in the missing word with the word that makes the most sense in the sentence. Watch and listen as I do the first one. "Jan lived on a farm. She had a_____." See the space for the missing word? When I place the pointer on the space for the missing word, three words appear. Now, I will choose the word that makes the most sense in the sentence by clicking on it.*

Let's see. "Jan lived on a farm. She had a _____ (day, pig, or jet.)" Which one makes the most sense?

Since Jan lived on a farm, PIG is the right answer. DAY and JET do not make sense in the sentence.

Note: As instruction is provided, an arrow models student behavior on screen.

Student Practice

Narrator:　　*Now you try. When you get to the next space, choose the word that makes the most sense by moving the pointer to the space, then clicking on the word that makes the most sense in the sentence.*

Choose the word that makes the most sense by moving the pointer over the space then clicking on the word that makes the most sense in the sentence.

972.643.3440 • fax: 972.643.3441 • www.istation.com

If student gives incorrect answer:

Narrator: *(boing)* *No. "The pig was xxx." XXX does not make sense in the sentence. Try again.*

Note: student must answer correctly in order to move on.

If student gives correct answer:

Narrator: *(ping)* *BIG. That's right. "Jan said it was the best pig. The pig was big." BIG makes the most sense in the sentence.*

If student does not respond in eight seconds:

Narrator: *(boing)* *Time is up. Try again. (Last instructions given by Narrator are repeated.)*

Note: student must answer correctly to move on.

Narrator: *Let's try one more. When you get to the next space, choose the word that makes the most sense in the sentence.*
(Another practice item is given and the steps outlined above are repeated.)

There's one more thing I need to tell you about this game. When you get to the end of a page, you will need to turn to the next page. To turn the page, click on the green arrow at the bottom of the page. Click on the flashing green arrow to turn the page now.

FOR ASSESSMENT

Smart Owlex Treebeak: *Woo, hoo, hoo. It's time to show what you know by reading a story. Pay attention. Go as fast as you can and do you best. Woo hoo hoo!*

Narrator: *Read this story carefully. When you get to a blank, point at the blank with the mouse. Then click on the word that best completes the sentence. Click on the flashing green button when you are ready to begin.*

If student gives incorrect answer:

Narrator: *(boing)* There is no narrator response. The correct word is placed in the blank. The item is scored incorrect.

If student gives correct answer:

Narrator: *(ping)* There is no narrator response.

If student shows repeating patterns of incorrect answers:

Smart Owlex Treebeak leans in with a series of prompts to encourage the student to focus and to do their best without guessing. Examples of the prompts are provided in the opening of the ISIP-ER Protocols section.

972.643.3440 • fax: 972.643.3441 • www.istation.com

<u>If student does not respond in eight seconds:</u>

There is no maximum allowed on the assessment to complete any blanks in the passage.

<u>Discontinue rule</u>:

After 1 minute, if accuracy is equal to or less than chance (35% for this activity), the subtest is discontinued and a score of 0 is given. After 30 seconds, if no selections have been made or 67% of choices are incorrect, the subtest is discontinued and a score of 0 is given.

SCORING

This is a 2 minute activity. The activity timer is off during the warm-up, during all instruction and during page turns. The total number of correct items, the number of words read to complete the correct items and accuracy rate are taken into consideration in the student score. The score is then normalized to a fluency rate per minute. If the accuracy rate is in the range of chance (35% for this activity), a score of 0 is given.

<div align="center"><u>***Spelling***</u></div>

The objective of the *Spelling* subtest is to determine if children are developing fully specified orthographic representation of words. For each item, an array of letters appears on the screen and the computer asks the child to spell a specific word using those letters. The child then spells the word by clicking on each letter. As each letter is selected, the word is formed on a line that appears directly below the letter array.

STUDENT DIRECTIONS

FOR WARM UP

Modeled Instruction

Smart Owlex Treebeak: *It's time to show what you know about spelling words. Listen carefully to the instructions.*

Narrator: *In this game, you will spell words. Eight letters will appear on screen. I will say a word, use it in a sentence, then say the word again. Your job is to click on each letter in the word in the right order to spell the word I say. You will hear something like this. Nest. The bird is in the nest. Nest.*
(letters m, i, e, t, n, s, d, x appear on screen)

Click on the letters to spell the word nest. If you make a mistake you can fix it. Point the eraser to the letter you want to change and erase it. Then click on your new choice. When you have finished, click on the OK button.

Note: As instruction is provided, an arrow models student behavior by spelling nest and clicking OK.

Student Practice

Narrator: *Now its your turn.*

     972.643.3440 • fax: 972.643.3441 • www.istation.com

Click on the letter that spells cat. She likes to pet her cat. Cat.

If student gives incorrect answer:

Narrator: *(boing)* *No. Say the word slowly. Click on the letters for each sound you make as you say the word. Try again.* (Last instructions given by the narrator are repeated).

Note: student must answer correctly to move on.

If student gives correct answer:

Narrator: *(ping)* *Yes. The letters c a t spell the word cat.*

If student does not begin responding in ten seconds:

Narrator: *(boing)* *Click on the letters for each sound you make as you say the word. Try again.* (Last instructions given by Narrator are repeated.)

Note: student must answer correctly to move on.

If student selects 3 or more letters and then there is no student activity for five seconds:

Narrator: *(boing)* *If you have made a mistake you can fix it. Point the eraser to the letter you want to change and erase it. Then click on your new choice. If you have finished, click on the OK button.*

Note: student must answer correctly to move on.

Narrator: *Lets try another one. Click on the letter that spell pig. That is a very fat pig. Pig.* (Another practice item is given and the steps outlined above are repeated.)

FOR ASSESSMENT

Smart Owlex Treebeak: ***Woo, hoo, hoo. It's time to show what you know about spelling words. Pay attention. Go as fast as you can and do you best. Woo hoo hoo!***

Narrator: *Click on the letters that spell the word XXXX. Word is used in a sentence.*

If student gives incorrect answer:

Narrator: *(boing)* *No. The letters x x x x spell the word xxxx.* Student response is recorded as incorrect and the next item is given.

If student gives correct answer:

Narrator: *(ping)* There is no narrator response. Student response is recorded as correct and the next item is presented.

972.643.3440 • fax: 972.643.3441 • www.istation.com

<u>If student does not begin responding in 45 seconds</u>:

Narrator: *(boing)*   *Time is up. Try again.* (Last instructions given by Narrator are repeated.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

<u>If student selects 3 or more letters and then there is no student activity for five seconds</u>:

Narrator: *(boing)*   *If you have made a mistake you can fix it. Point the eraser to the letter you want to change and erase it. Then click on your new choice. If you have finished, click on the OK button.*

Note: A non-response after five more seconds is scored as either incorrect or correct based upon letters chosen. The next item is presented.

<u>Vocabulary</u>

There are two types of assessment used to measure a student's *Vocabulary* knowledge and to evaluate both the upper and lower bounds of knowledge. In the first assessment type, four pictures appear on the screen. The narrator asks the student to identify the picture that best illustrates the word spoken orally. In the second form of assessment, four words appear on the screen. Each of the four words is spoken by the narrator. Students are asked to identify which word has the same or similar meaning of a word pronounced by the narrator.

STUDENT DIRECTIONS

FOR WARM UP

<u>Modeled Instruction- Assessment Model 1</u>

Smart Owlex Treebeak: *It's time to show what you know about words and their meaning. Listen carefully to the instructions.*

Narrator: *In this game, you are going to see some pictures. I will say a word. You will click on the picture for the word I say. You will hear something like this.*
(Four pictures appear on the screen, images of a kite, lion, desk and monkey.)

Click on the picture for the word Lion. You will move your mouse to the picture for the word spoken, Lion, and click on it.

Note: As instruction is provided, an arrow on screen models student behavior.

<u>Student Practice – Assessment Model 1</u>

Narrator: *Now it's your turn. Click on the picture for the word Moon.* (Moon, dog, pie and rug images appear on screen)

If student gives incorrect answer:

Narrator: *(boing)* *No. This is the picture for the word Moon. Try again.* (Last instructions given by the narrator are repeated).

Note: student must answer correctly to move on.

If student gives correct answer:

Narrator: *(ping)* *Yes. This is the picture for the word Moon.*

If student does not respond in five seconds:

Narrator: *(boing)* *Time is up. Try again.*
(Last instructions given by Narrator are repeated.)

Note: student must answer correctly to move on.

FOR ASSESSMENT MODEL 1

Smart Owlex Treebeak: *Woo, hoo, hoo. It's time to show what you know about words. Pay attention. Go as fast as you can and do you best. Woo hoo hoo!*

Narrator: (pictures appear on screen) *Click on the picture for the word "target word".*

If student gives incorrect answer:

Narrator: *(boing)* *No. This is the picture for the word "target word".* Student response is recorded as incorrect and the next item is given.

If student gives correct answer:

Narrator: *(ping)* There is no narrator response. Student response is recorded as correct and the next item is presented.

If student does not respond in five seconds:

Narrator: *(boing)* *Time is up. Try again.* (Last instructions given by Narrator are repeated.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

Modeled Instruction – Model 2

Narrator: *In this game, you are going to see some words. I will say each word. You will click on the word that has the same or similar meaning to the word I say. You will hear something like this.* (Four words appear on the screen: sad, happy, mad, bright) *Sad, Happy, Mad, Bright. Click on the word that has the same or similar meaning as Angry. Mad is the correct choice. Mad means the same as angry.*

Note: As instruction is provided, an arrow on screen models student behavior.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Student Practice – Model 2

Narrator:	*Now it's your turn.* (Four words appear on screen: light, little, one, few) *Click on the word that has the same or similar meaning as Small.*

If student gives incorrect answer:

Narrator:	*(boing).*	*No. Little is the correct choice. Little has the same meaning as Small. Try again.* (Last instructions given by the narrator are repeated).

Note: student must answer correctly to move on.

If student gives correct answer:

Narrator:	(ping).	*Yes. Little is the correct choice. Little has the same meaning as Small.*

If student does not respond in five seconds:

Narrator:	*(boing).*	*Time is up. Try again.* (Last instructions given by Narrator are repeated.)

Note: student must answer correctly to move on.

FOR ASSESSMENT – MODEL 2

Smart Owlex Treebeak:	*Woo, hoo, hoo. It's time to show what you know about words. Pay attention. Go as fast as you can and do you best. Woo hoo hoo!*

Narrator: Click on the word that has the same or similar meaning as "target word".

If student gives incorrect answer:

Narrator:	*(boing).*	*No. "Target Word" is the correct choice. "Target word" has the same meaning as xxxxx.* Student response is recorded as incorrect and the next item is given.

If student gives correct answer:

Narrator:	*(ping)*	There is no narrator response. Student response is recorded as correct and the next item is presented.

If student does not respond in five seconds:

Narrator:	*(boing).*	*Time is up. Try again.* (Last instructions given by Narrator are repeated.)

Note: A non-response is scored as incorrect. After a second non-response, the next item is presented. The activity timer is stopped during the re-try.

CHAPTER 3:
USING AND INTERPRETING ISIP EARLY READING REPORTS

Providing teachers with timely student data is the key ingredient to linking early reading assessment results and instructional planning. In any data-driven or results-oriented model of instruction, the needs are the same:

1) Information that will assist in the identification of students that need additional support or different forms of support in order to achieve reading goals.

2) Ongoing information on student performance against goals that will assist in evaluating the effectiveness of instruction and in developing and modifying instructional plans that can change reading outcomes for students at risk of failure.

3) Information that will assist in the evaluation of instruction and instructional supports at all levels—district, area, school, and classroom—and from year to year, which can inform decisions about allocating resources and efforts.

What is lacking in existing models is the availability of data early enough in assessment–instruction decision loops. When learning builds on prior concepts, the teacher must know quickly who is struggling and whether existing instructional methods are effective in preventing students from falling further and further behind. Only when data results in timely remedial actions can it significantly affect outcomes.

The technology underlying ISIP Early Reading delivers computer-based assessments, real time evaluation of results, and immediate availability of reports on student progress. Assessment reports automatically group students according to level of support needed as well as skill needs. Teachers are provided links to teacher-directed plans of instruction and downloadable lessons and materials appropriate for each group.

Data is provided in both graphical and detailed numerical formats on every measure and at every level of a district's reporting hierarchy. Data is seamlessly and securely shared by users within the district, based upon authorization levels. Data may be shared with state information systems if requested by a school district. Individual student information can be provided to parents or guardians of students tested.

972.643.3440 • fax: 972.643.3441 • www.istation.com

District, Area, School, and Classroom Level Reports

Summary Report

The Summary Report shows the number and percentage of students at each of three instructional tiers: Tier 1 – no risk (above the 40th percentile), Tier 2 – some risk (between the 20-40th percentile), and Tier 3 – at risk (below the 20th percentile). This report may be used by district administrators, principals, or teachers to project year end outcomes and to judge the effectiveness of instruction. The Summary Report can also be used by administrators to determine which principals and teachers face the greatest challenges. This information can aid in making important decisions about the best use of resources, including the need for professional development.

Tier Movement Report

This report shows a comparison of the number and percentage of students who were categorized at each instructional tier of Tier 1, Tier 2, and Tier 3 through the current month. Assessments are given each month to monitor growth in critical skills. This report is used to evaluate student growth over the school year.

ISIP™ Early Reading Tier Movement Report

Report Options

Class: -- select a class --
Grade: 2nd Grade
Reporting Year: 2010 / 2011
Demographics: -- select a demographic --

Update Report

School Year: 2010 - 2011

[+] Show Report Description

Overall Reading | Listening Comprehension | Letter Knowledge | Phonemic Awareness | Alphabetic Decoding
Comprehension | Vocabulary | Spelling | Text Fluency
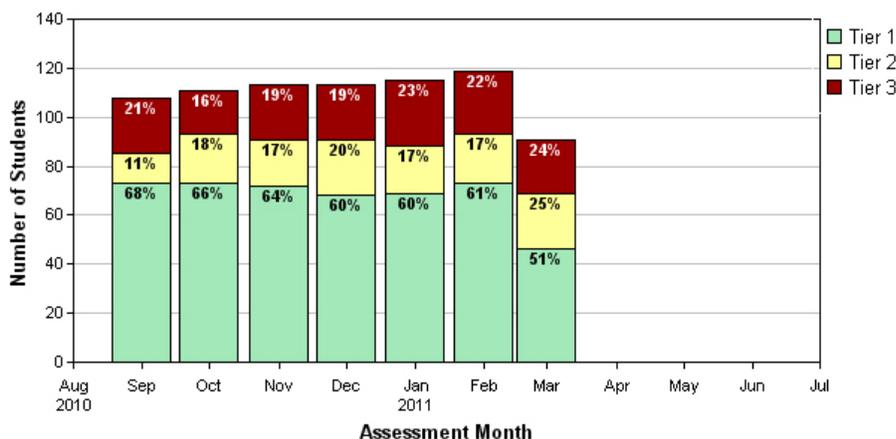
Overall progress and individual skill growth can be monitored for large and small groups of students.

View tiers in table as Percentages | Numbers

Class			Sep [+]		Oct [+]		Nov [+]		Dec [+]		Jan [+]		Feb [+]	
	Total Students	Tier Level 3 2 1	Total Students	Tier Level 3 2 1	Total Students	Tier Level 3 2 1	Total Students	Tier Level 3 2 1	Total Students	Tier Level 3 2 1	Total Students	Tier Level 3 2 1	Total Students	Tier 3
Classroom - K [+]			6	3 1 2	6	3 1 2	6	3 2 1	6	3 2 1	6	3 0 3	6	3
2nd Grade - A [+]			13	5 3 5	13	4 5 4	14	5 3 6	14	5 4 5	15	5 7 3	15	6
2nd Grade - A [+]			17	2 0 15	17	2 0 15	17	1 1 15	17	0 3 14	17	0 4 13	19	3 0
2nd Grade - J [+]			14	4 4 6	15	4 3 8	15	5 3 7	15	6 3 6	16	8 2 6	16	7
2nd Grade - K [+]			17	3 1 13	17	4 2 11	17	2 4 11	17	4 3 10	17	4 1 12	17	4 3

Skill Growth Report

This report shows the progress made in each skill for all assessment periods to date. Progress is measured against performance goals. This report provides an excellent visual representation of the level of support needed.

This report may be used by district administrators, principals, and teachers to evaluate instructional supports and determine if modifications to the instructional plan should be considered. If progress is below goal for several consecutive assessments, the instructional plan should be re-evaluated. Only when progress exceeds goal are the instructional supports considered sufficient. This report is used to monitor the classroom's progress in skill acquisition, determine the need for whole-group instruction, identify the level of student support needed, evaluate effectiveness of instructional support, and discuss student performance in Parent/Teacher conferences.
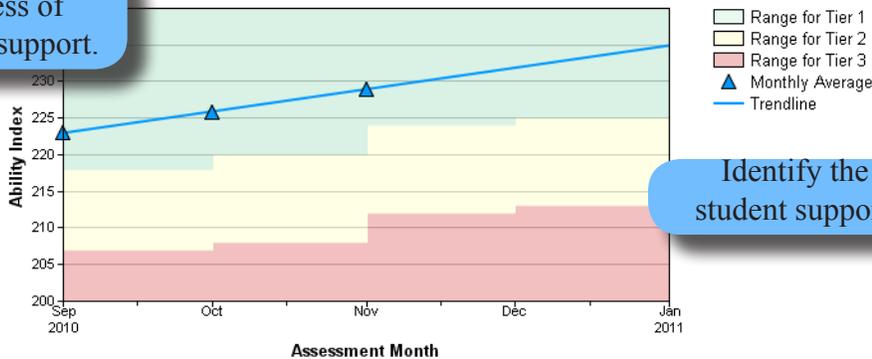
Averages by Assessment Month - Overall Reading Ability Index					
Student	Sep [+]	Oct [+]	Nov [+]	Dec [+]	Jan [+]
Ainslee [+]	236	242	253		
Lauren [+]	227	240	228		
Alicia [+]	226	232	240		
Alyssa [+]	201	210	207		
Brodie [+]	230	224	238		
Tyler [+]	225	223	233		
Rain [+]	221	214	210		
Austin [+]	218	219	220		
Timothy [+]	226	227	231		
Nathan [+]	226	223			
John [+]	235	238	242		

Skill Growth by Tier Report

The Skills Growth by Tier Report shows how students identified in each tier at the beginning of the year progress in each skill assessed as a group. Even if students change tier classification individually, their group designation for this report is based on their first assessment so that this report accurately reflects the progress of each tier group based on who was in that group at the beginning of the year. The values plotted on the graph are the average student performance for Tier 1, Tier 2, and Tier 3 students. This report is used to monitor the classroom's tier movement by skill and overall reading ability, monitor the classroom's progress in skill acquisition, identify the level of student support needed, and evaluate effectiveness of instructional support.
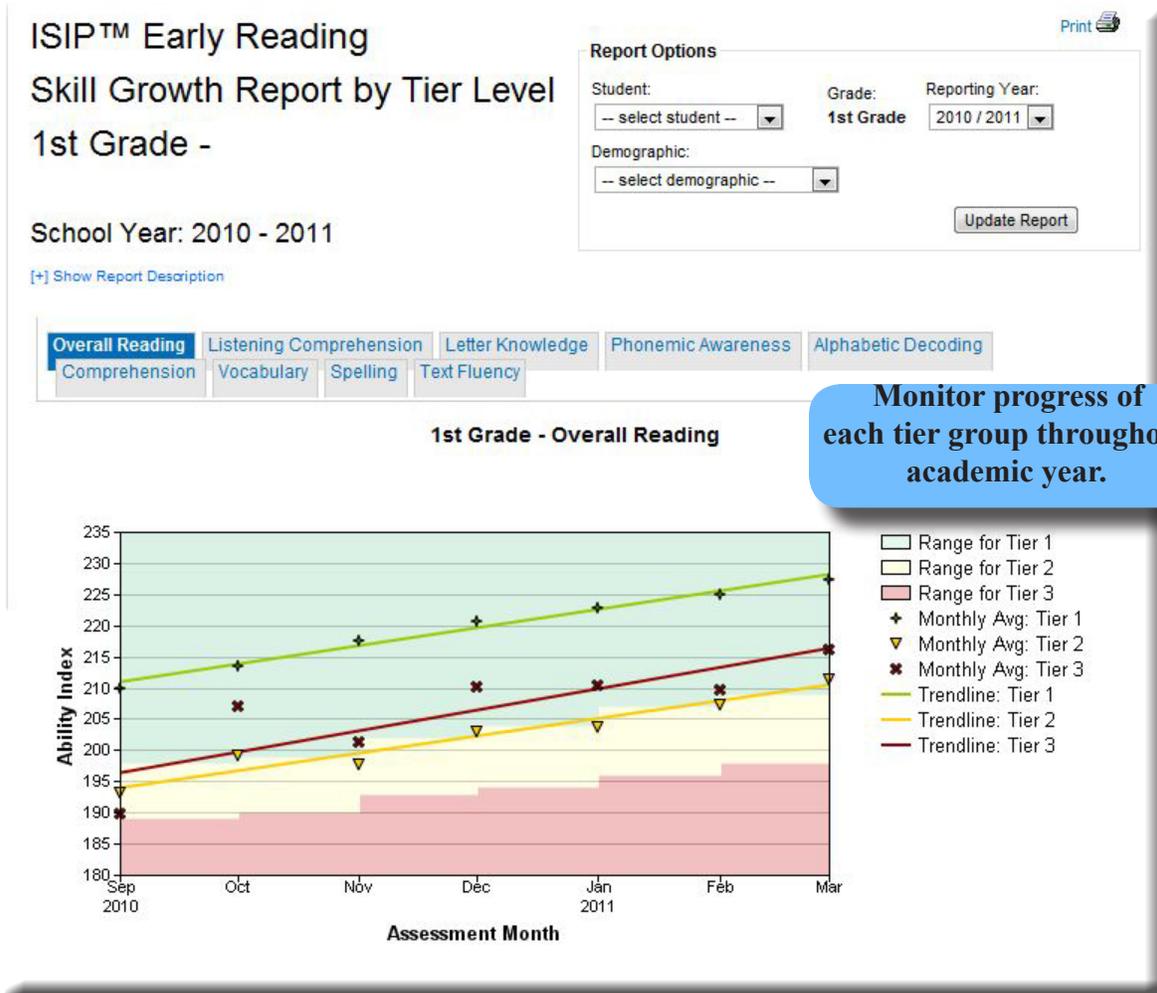
Executive Summary Report

The Executive Summary Report provides a brief overview of the current ISIP assessment. This report is only available to manager accounts and only provides information for the school or district level.

Classroom and Student Level Reports

Priority Report

This report automatically alerts teachers to students in need of instructional support. Students are grouped according to risk level and skill need. Links are provided to teacher-directed plans of instruction and downloadable lessons and materials appropriate for each group. When student performance on assessments is below goal for several consecutive assessment periods, teachers are further notified. This is done to raise teacher concern and signal the need to consider additional or different forms of instruction. Where students have not participated fully in the assessment plan or are non-responsive to intervention and continue to show weakness, recommendations may be made to consider the use of diagnostic tests.

A complete history of Priority Report notifications, including those from the current year and all prior years, is maintained for each student. This report has a feature with which teachers may acknowledge that suggested interventions have been provided. A record of these interventions is maintained with the student history as an Intervention Audit Trail. This history can be used for special education Individual Education Plans (IEPs) and in Response to Intervention (RTI) models of instruction. The combination of progress monitoring data and a record of specific interventions proves to be a practical, clear picture of how a student is responding to intervention.

Top | rptdemo | Report Demo | a.rptdemo | a.rptdemo Students | 1st Grade - 12

Priority Report
1st Grade - 12
George Washington Elementary
School Year: 2009 - 2010

[+] Show Report Description

REPORT OPTIONS
Show Students with Intervention Lesson Delivered ☐
[Update Report]

EXCESSIVE LOGOUTS/IDLE TIME

	Name	Overall Reading Tier	Curriculum Status	First Listed on Report	Usage Since (hh:mm)	Current Cycle	Recommended Teacher Directed Lessons
☐	Kylie [+]		▼	Thu May 13 2010	0:24	9	📄 10 Simple Steps
☐	Nionna [+]		▼	Thu May 13 2010	0:23	9	

[Intervention Lesson Delivered]

Students grouped by skill need.

ISIP: TEXT FLUENCY

	Name	Overall Reading Tier	Curriculum Status	First Listed on Report	Usage Since (hh:mm)	Current Cycle	Recommended Teacher Directed Lessons
☐	Cassidy [+]		✗	Thu May 13 2010	0:23	9	📄 Text Fluency
☐	Nionna [+]		✗	Thu May 13 2010	0:23	9	

[Intervention Lesson Delivered]

Level of support identified to use in instructional planning decisions.

ISIP: SPELLING

	Name	Overall Reading Tier	Curriculum Status	First Listed on Report	Usage Since (hh:mm)	Current Cycle	Recommended Teacher Directed Lessons
☐	Carmen [+]		▼	Thu May 20 2010	0:00	9	📄 Spelling
☐	DaQuan [+]		▼	Thu May 20 2010	0:00	7	
☐	Kaylee [+]		▼	Thu May 20 2010	0:00	9	
☐	Logan [+]		▼	Thu May 20 2010	0:00	10	
☐	Rachelle [+]		▼	Thu May 20 2010	0:00	8	
☐	Tate [+]		▼	Thu May 20 2010	0:00	7	

[Intervention Lesson Delivered]

Recommended instructional plan available to download for immediate use.

Student Priority Report

This report is a history of identified skill weaknesses for a student, including those from the current and prior school years. The recommended teacher directed lessons for intervention are listed, along with the level of difficulty the student had with the identified skill or skills.

If a recommended teacher directed lesson was delivered as an intervention and the teacher clicked the Intervention Lesson Delivered button on the Priority Report, the date will be listed below. Teachers also have the option of adding an intervention note. This optional note is an opportunity for teachers to give additional information about student progress and interventions delivered for RTI purposes. This type of anecdotal record can be beneficial to those evaluating a student's overall instructional plan.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Student Summary Handout

This report provides a summary of student performance for the current school year. All completed ISIP assessments, all cycle-based curriculum assessments and practice activities, current Priority Report alerts, and usage information are all provided on this report.

This report is used to evaluate the student intervention plan, identify student skill weaknesses, discuss student performance with administrators, and plan for Parent/Teacher conferences.

Student Summary Report for

Student Name

1st Grade - School Year: 2010 - 2011
as of Tue Jan 11 2011 11:24:26 GMT-0600 (Central Standard Time)

Grade Level: 1st Grade
Current Reading Program Cycle: 4
Last Date Used: Mon Jan 10 13:05:11 CST 2011

Program Usage: 13.7 hours
Lexile Levels: < 150

istation's Indicators of Progress (ISIP™) Early Reading Results

An objective of ISIP is to identify students potentially at risk of reading failure. Subtest ability indices are used to establish an Overall Reading ability index, which can be used to show reading growth. Tier levels are established to show scores relative to a nationally normed sample.

ISIP Overall Reading
– **Ability Index:** 206
– **Grade Equivalent (GE):** 1.6 (performing at 1st Grade level in February)
– **Tier:** 2 (Performing moderately below grade level and in need of intervention)

ISIP Overall Ability Index: 206

ISIP Text Fluency
– **Score:** 6
– **Tier:** 2 (Performing moderately below grade level and in need of intervention)
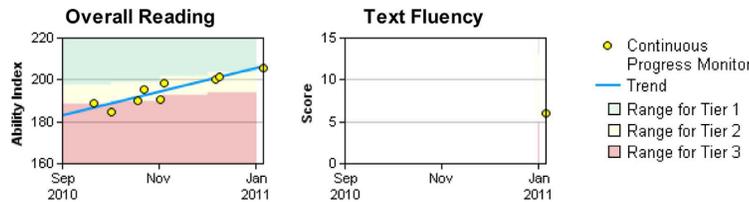
The following abilities are included in Overall Reading:
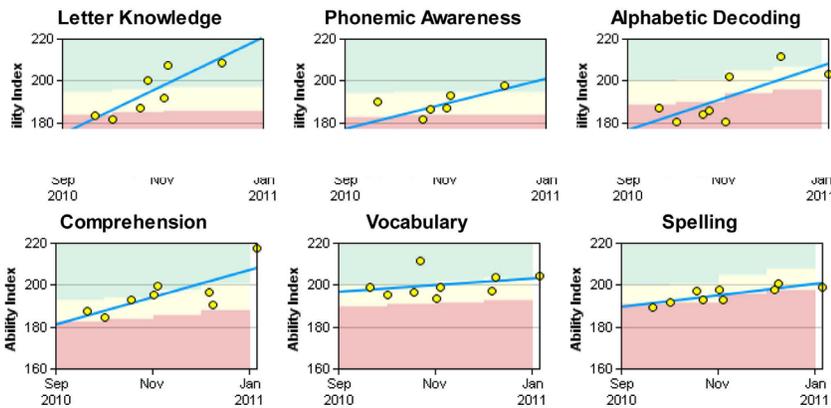
The graphs above show each skill assessed and the progress made through the current month. Skill goals and criteria become progressively more difficult with each assessment period.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Navigating ISIP Early Reading Reports

ISIP Early Reading reports are immediately accessible online at www.istation.com to administrators and teachers by logging in with their unique usernames and passwords.

Upon login, administrators are taken directly to the ISIP Early Reading Reports Homepage. This page provides an overview and easy access to all reports available on the istation Reports Website. Descriptions and thumbnail images are available to help direct users to the desired report.

When teachers log into the istation Reports Website, they are taken immediately to their Priority Report. This allows teachers to immediately view which students are in need of instructional support. Teachers may also access other ISIP Early Reading reports from the ISIP Early Reading Reports Homepage.

Accessing Downloadable Lessons

Teachers can access recommended teacher directed lessons by clicking links to lessons in the Recommended Teacher Directed Lessons column on the Priority Report. Additional teacher-directed plans of instruction and downloadable lessons and materials are available in the Teacher Resources section of the istation Reports Website.

972.643.3440 • fax: 972.643.3441 • www.istation.com

INTERPRETING ISIP Early Reading Scores

Ability Index Scores

An ISIP Early Reading score is reported as an Ability Index Score. When a student takes an ISIP Early Reading assessment, he or she is presented with test questions of varying ability scores or levels of difficulty. Once ISIP determines the difficulty level at which the student is able to perform, the test ends and the student is assigned an overall reading ability index, as well as ability indices for individual subtests.

ISIP Early Reading uses a measurement scale that aligns student performance levels with test question difficulties on the same scale. This scale is divided into equal parts called ability indices. All test questions are placed on the ability index scale according to their difficulty. Each increasing ability index is assigned a numerical value that indicates a higher level of difficulty.

Since ISIP is adaptive and the test questions are displayed based on student performance, not age or grade, identical ability scores across grades mean the same thing. For example, a first grader who receives a score of 215 and a third grader who receives a score of 215 are performing at the same level. This ability index can be used by teachers to measure student progress throughout, and even across, academics years. This valuable measure can aid teachers in informing instruction around their students' strengths and weaknesses. Targeted instruction leads to better performance and maximum growth.

972.643.3440 • fax: 972.643.3441 • www.istation.com
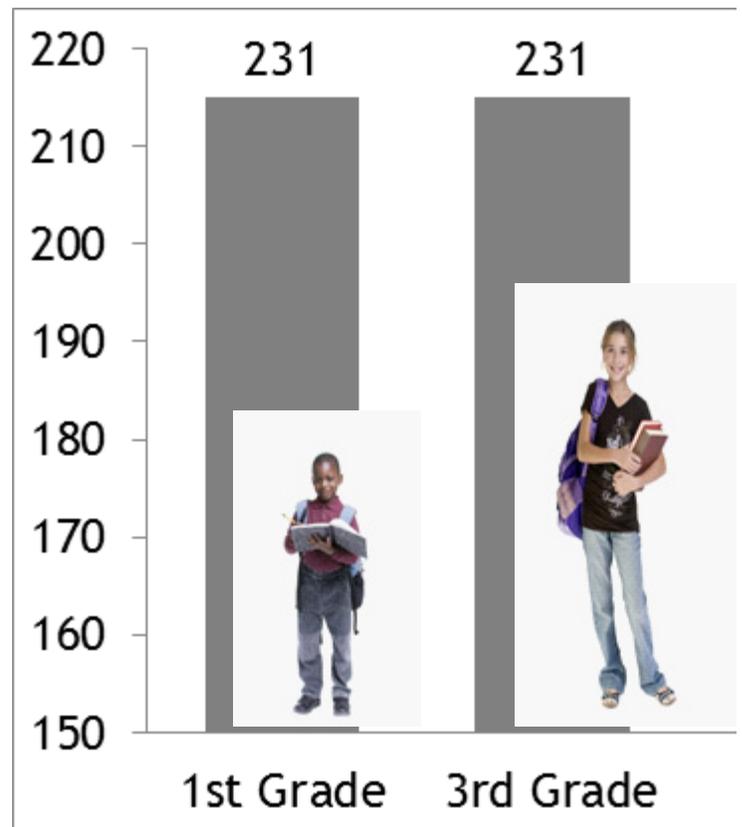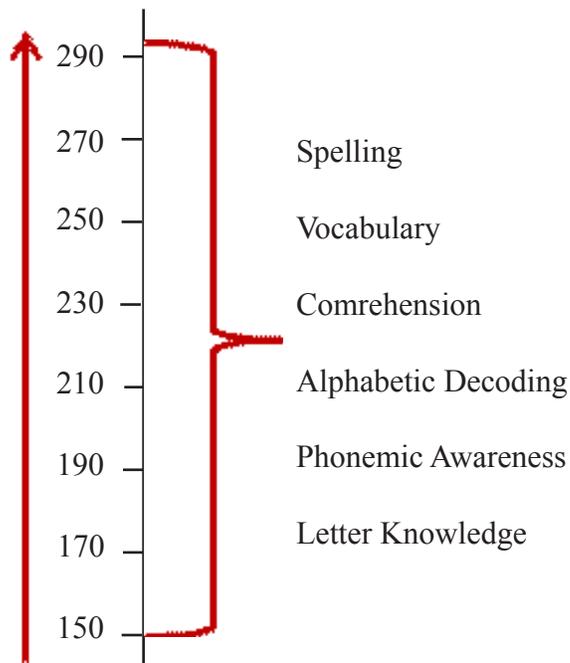
ISIP Early Reading - Overall Reading

Assessment Month	Pre-K			Kindergarten			1st Grade			2nd Grade			3rd Grade		
	Tier 3	Tier 2	Tier 1	Tier 3	Tier 2	Tier 1	Tier 3	Tier 2	Tier 1	Tier 3	Tier 2	Tier 1	Tier 3	Tier 2	Tier 1
August	<147	147-157	>157	<167	167-175	>175	<188	188-194	>194	<204	204-214	>214	<217	217-227	>227
September	<147	147-157	>157	<170	170-177	>177	<190	190-197	>197	<208	208-217	>217	<219	219-230	>230
October	<149	149-160	>160	<171	171-179	>179	<191	191-198	>198	<209	209-219	>219	<221	221-231	>231
November	<153	153-163	>163	<175	175-183	>183	<194	194-201	>201	<213	213-223	>223	<225	225-234	>234
December	<156	156-166	>166	<177	177-186	>186	<195	195-203	>203	<214	214-224	>224	<225	225-234	>234
January	<157	157-166	>166	<179	179-188	>188	<197	197-206	>206	<217	217-226	>226	<227	227-236	>236
February	<161	161-169	>169	<181	181-190	>190	<199	199-208	>208	<217	217-227	>227	<227	227-236	>236
March	<162	162-171	>171	<184	184-193	>193	<200	200-211	>211	<219	219-229	>229	<228	228-238	>238
April	<164	164-173	>173	<185	185-194	>194	<202	202-212	>212	<220	220-229	>229	<228	228-238	>238
May	<165	165-174	>174	<188	188-196	>196	<205	205-216	>216	<222	222-232	>232	<229	229-239	>239
June	<163	163-174	>174	<188	188-196	>196	<205	205-216	>216	<222	222-232	>232	<229	229-239	>239
July	<164	164-174	>174	<188	188-196	>196	<205	205-216	>216	<222	222-232	>232	<229	229-239	>239

National Norms

National norms for ISIP Early Reading are provided for students in Kindergarten through Grade 3. These norms enable teachers and parents to know how their students' scores compare with a nationally representative sample of children in their particular grade. The norming samples were obtained as part of istation's ongoing research in assessing reading ability.

The samples were drawn from enrolled ISIP Early Reading users during the 2009-2010 school year. Student percentile ranks were established using the monthly overall reading ability index, as well as the ability index for each ISIP Early Reading subtest.

See Chapter 7 for Norming Tables.

Instructional Tier Goals

Consistent with other reading assessments, istation has defined a three-tier normative grouping based on indices associated with the 20th and 40th percentiles. Students with an index above the 40th percentile for their grade are placed into Tier 1. Students with an index below the 20th percentile are placed into Tier 3. These tiers are used to guide educators in determining the level of instruction for each student. That is, students classified as:

• Tier 1 (40th percentile and above) are on track and performing at grade level.

• Tier 2 (between 21st and 39th percentile) are at some risk, are performing moderately below grade level, and are in need of intervention.

• Tier 3 (20th percentile and below) are at risk, are performing seriously below grade level, and are in need of intensive intervention.
Students who are classified as Tier 2 across all subtests should be considered to be having comprehensive reading difficulties and should receive Tier 3 instruction.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Grade Level Equivalencies

Grade Level Equivalencies are scores based on the performance of students in the 2009–2010 norming group. The grade level equivalent represents the grade level and month of the typical score for students. If a student receives a GE of 2.4, this means that the student earned a score similar to the 50th percentile students in the test's norming group who were in their fourth month of grade 2.

The grade level equivalent does not represent the appropriate level of instructional material with which a student should be placed. Grade level equivalencies should never be interpreted literally, but rather as a rough estimate of a student's grade level performance.

Difference Between Ability Index Scores and Grade Level Equivalencies

There are basic differences between Ability Index Scores and Grade Level Equivalencies. The Ability Indices represent a student's performance on a measurement scale of skill and reading ability. In contrast, the grade level equivalent represents a student's performance in comparison to students who were in the norming group.

972.643.3440 • fax: 972.643.3441 • www.istation.com

CHAPTER 4:

IRT CALIBRATION AND THE CAT ALGORITHM

The goals of this study were to determine the appropriate item response theory (IRT) model, estimate item-level parameters, and tailor the computer adaptive testing (CAT) algorithms, such as the exit criteria.

During the 2007-08 school year, data were collected from two large north Texas independent school districts (ISD), labeled AISD and BISD henceforth. Five elementary schools from each district were recruited for the study. At each school, all Kindergarten through 3rd Grade students in general education classrooms were asked to bring home introductory letters and study consent forms, which had prior approval by both the school districts and Southern Methodist University's institutional review board. Table 1 shows the number of students at each school and the number of students with signed consent forms who participated.

Table 1. Number of Students in Study.

District School	Signed Consent Forms	Total Students	Percent of Students with Signed Consent Forms
AISD	615	999	61.56
A.1	108	210	51.43
A.2	212	274	77.37
A.3	107	205	52.20
A.4	70	180	38.89
A.5	118	130	90.77
BISD	1002	1301	77.02
B.1	79	165	47.88
B.2	306	362	84.53
B.3	158	222	71.17
B.4	227	304	74.67
B.5	232	248	93.55
TOTAL	1617	2300	70.30

Both districts represented socially and ethnically diverse populations. Table 2 shows the demographics of participating students from each district.

Table 2. Demographics of Participating Students.

	AISD		BISD		Study	
	Number in Category	Percent of Students	Number in Category	Percent of Students	Number in Category	Percent of Students
Total	615		1002		1617	
Kindergarten	130	21.14	238	23.75	368	22.76
1st Grade	164	26.67	257	25.65	421	26.04
2nd Grade	143	23.25	287	28.64	430	26.59
3rd Grade	178	28.94	220	21.96	398	24.61
Gender						
Male	271	44.07	533	53.19	804	49.72
Female	344	55.93	469	46.81	813	50.28
Ethnicity						
White	39	6.34	372	37.13	411	25.42
Hispanic	273	44.39	227	22.65	500	30.92
African American	288	46.83	230	22.95	518	32.03
Asian	11	1.79	162	16.17	173	10.70
American Indian	2	0.33	7	0.70	9	0.56
Unknown	2	0.33	4	0.40	6	0.37
Receiving ESL Services	122	19.84	305	30.44	427	26.41
Receiving Free/ Reduced Lunch	547	88.94	421	42.02	968	59.86
Receiving Special Ed Services	49	7.97	60	5.99	109	6.74

Students were escorted by trained SMU data collectors, typically graduate students, in convenience groupings to the school's computer lab for 30-minutes sessions on the ISIP Early Reading.

It was unrealistic to administer all the items to each student participating in the study. Therefore, items were divided into a relatively lower difficulty subpool and a higher difficulty subpool by content experts. Students in Kindergarten and 1st Grade (K-1) were given 970 ISIP items from 8 skill groups. Students in 2nd and 3rd Grades (2-3) were given 750 items. Included in each total are 148 overlapping items that were given to all students, Kindergarten through 3rd Grade (K-3), and used for comparison and vertical scaling. Table 3 shows the numbers of items given to the students in the study.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table 3. Items Used in Study.

Skill	K-1	Overlap (K-3)	2-3
Beginning Sound	112	11	0
Phonemic Blending	83	19	87
Vocabulary	90	27	151
Comprehension	88	18	138
Alphabetic Decoding	102	23	105
Spelling	79	22	121
Letter Sound	110	12	0
Letter Recognition	158	16	0
TOTAL	822	148	602

The items in each grade group were divided into 12 blocks, each taking approximately 30 minutes to complete. The blocks were divided into 4 treatments using a cyclic Latin squares design in order to control for order main effects. Participating students were randomly assigned to one of the four treatments by istation staff creating the student login accounts. ISIP Early Reading was programmed to automatically follow the treatment order based on the assigned treatment group.

Testing at AISD took place between January 2008 and May 2008. Testing at BISD took place between November 2007 and February 2008. Ideally, students were tested twice weekly for 6 consecutive weeks. However, circumstances occasionally arose which precluded testing for a given student or for groups of students, including absences, assemblies, and holidays. When testing did not occur for a group of students, additional testing sessions were added to the end of the schedule. As a rule, when 95% of the students at a school completed all 12 sessions, testing stopped at that school. After testing was completed, on average there were approximately 800 responses per item.

Data Analysis and Results

Due to the sample size for each item, a 2-parameter logistic item response model (2PL-IRT) was posited. We define the binary response data, x_{ij}, with index $i=1,...n$ for persons, and index $j=1,...J$ for items. The binary variable $x_{ij} = 1$ if the response from student i to item j was correct and $x_{ij} = 0$ if the response was wrong. In the 2PL-IRT model, the probability of a correct response from examinee i to item j is defined as

$$P(x_{ij} = 1) = \frac{\exp[\lambda_j(\theta_i - \delta_j)]}{1 + \exp[\lambda_j(\theta_i - \delta_j)]},$$

where θ_i is examinee i's ability parameter, δ_j is item j's difficulty parameter, and λ_j is item j's discrimination parameter.

While the marginal maximum likelihood estimation (MMLE) approach by Bock and Aitkin (1981) has many desirable features compared to earlier estimation procedures, such as consistent estimates and manageable computation, there are some limitations. For example, items which are answered correctly or incorrectly by all of the examinees must be eliminated. Also, item discrimination estimates near zero can result in very large absolute values of item difficulty estimates, which may fail the estimation process and no ability estimates can be obtained. To overcome these limitations, we employed a full Bayesian framework to fit the IRT models. More specifically, the likelihood function based on the sample data is combined with the prior distributions assumed on the set of the unknown parameters to produce the posterior distribution of the parameters, the inference is then based on the posterior distribution.

972.643.3440 • fax: 972.643.3441 • www.istation.com

There are two roles played by the prior distribution. First, if we have information from experts or previous study on the IRT parameters, such as certain group of items is more challenging, we can utilize the information in the form the prior to help produce more stable estimates. On the other hand, if we know little about those parameters, we could use the noninformative prior with a large variance to reflect this uncertainty. Second, in the Bayesian estimation, the primary effect of the prior distribution is to shrink the estimates towards the mean of the prior. The shrinkage towards the prior mean helps prevent deviant parameter estimates. Furthermore, with the Bayesian approach, there is no need to eliminate any data.

As for the prior specification, we assumed that the J item difficulty parameters are independent, as are the J item discrimination parameters and the n examinee ability parameters. We initially assigned the subject ability parameters and item difficulty parameters noninformative two-stage normal priors,

$$\theta_i \sim N(0, \tau_\theta) \qquad i = 1, \ldots n,$$
$$\delta_j \sim N(0, \tau_\delta) \qquad j = 1, \ldots J.$$

Variance parameters τ_θ and τ_δ each follow a conjugate inverse gamma prior to introduce more flexibility,

$$\tau_\theta \sim IG(a_\theta, b_\theta),$$

$$\tau_\theta \sim IG(a_\delta, b_\delta),$$

where a_θ and b_θ, a_δ and b_δ are fixed values. The hyperparameters were assigned to produce vague priors. From Berger (1985), Bayesian estimators are often robust to changes of hyperparameters when noninformative or vague priors are used. We let $a_\theta = a_\lambda = 2$ and $b_\theta = b_\delta = 1$, allowing the inverse gamma priors to have infinite variances.

By definition, the item discrimination parameters are necessarily positive, so we assumed a gamma prior,

$$\lambda \sim Gamma(a_\lambda, b_\lambda), \quad j = 1, \ldots J.$$

where the hyperparameters were defined as $a_\lambda = b_\lambda = 1$.

The Gibbs sampler, a Bayesian parameter estimation technique, was employed to obtain item parameter estimates by way of a FORTRAN program. Several items did not have sufficient sample size to produce reliable estimates, and were subsequently removed from future analyses. The resulting analysis produced two parameter estimates for each of the 1,550 items, a difficulty parameter as well as a discriminability parameter, which indicates how well an item discriminates between students with low reading ability and students with high ability.

In the study, we implemented the common-item nonequivalent groups design for the 1,550 items that had reliable parameter estimates. The parameter estimates for the 2-3 item group were transformed to the scale for the K-1 item group by using results from the 148 overlapping K-3 items using the mean/mean procedure (Kolen & Brennan, 2004). Figures 1 and 2 show the ranges of estimates for each parameter for the subtests developed for calibration: Beginning Sound (BSF), Comprehension (CMPF), Letter Recognition (LRF), Letter Sound (LSF), Phoneme Blending (PBF), Spelling (SPL), Vocabulary Level 1 (VOC1), Vocabulary Level 2 (VOC2), and Alphabetic Decoding (WNF).

972.643.3440 • fax: 972.643.3441 • www.istation.com

Figure 1. *Range of discriminability parameter estimates by skill.*
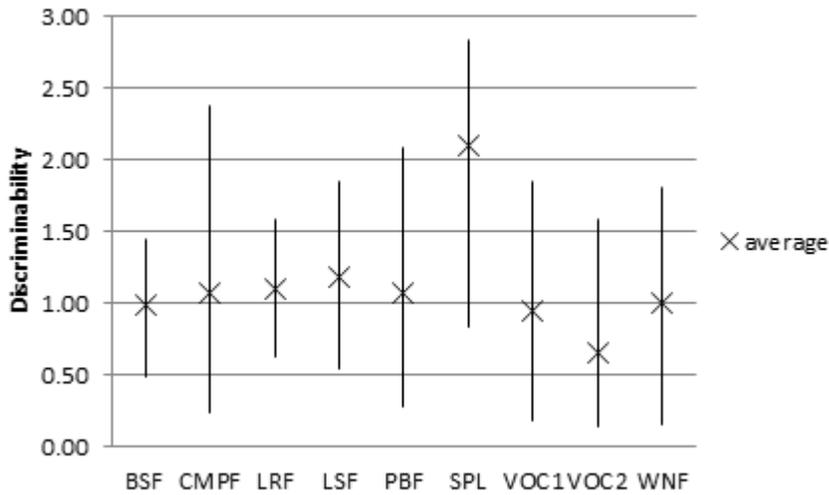
Figure 2. *Range of difficulty parameter estimates by skill.*
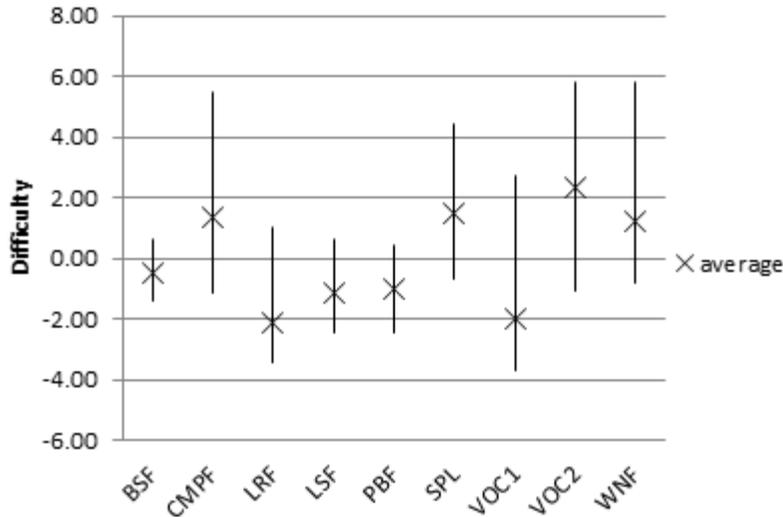
The Pearson product moment correlation coefficient between the difficulty and discriminability parameters was effectively zero ($r = -0.0029$). Visual evidence of no relationship can be seen in Figures 3 and 4, showing scatterplot diagrams between the two parameters, groups first by grade and then by skill.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Figure 3. *IRT Calibration Results: Final Item Parameters by Grade for all Skills.*
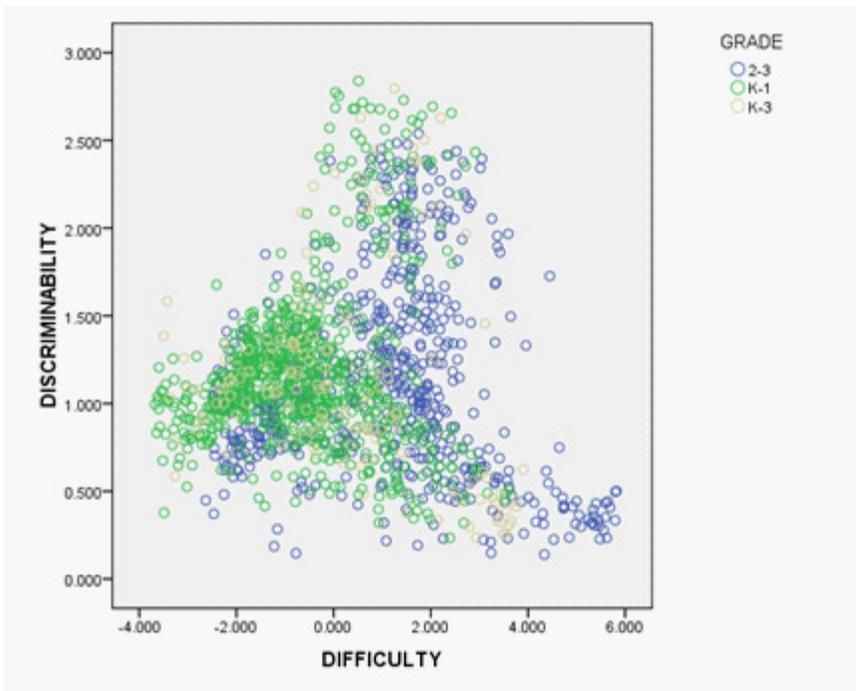
Figure 4. *IRT Calibration Results: Final Item Parameters by Skill for Grades K-3.*
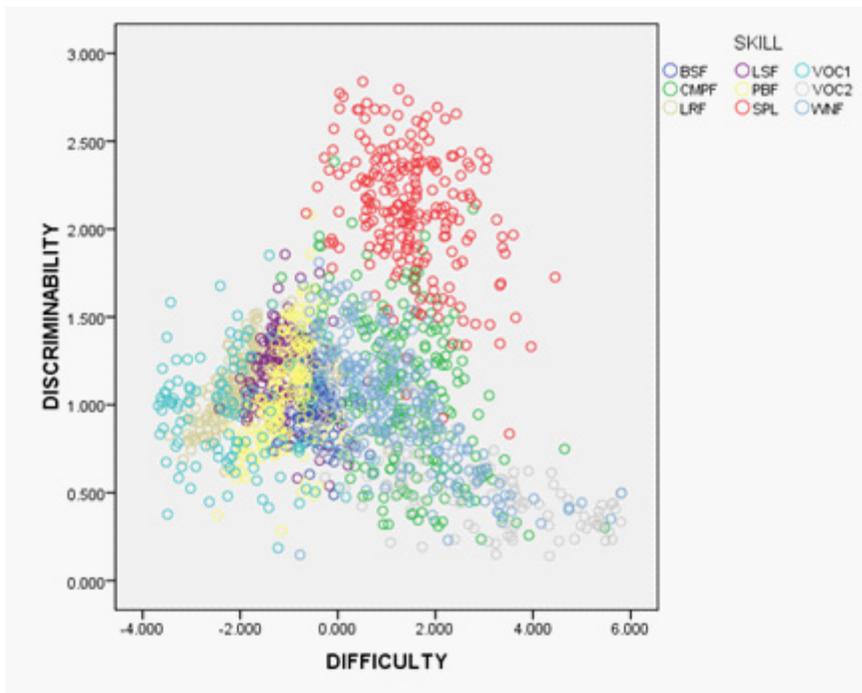
Distributions of each parameter by skill were approximately normal. Subsequently, 95% confidence intervals (95CI) around each mean were computed. Items with parameters outside of the 95CI were examined by a panel of content experts, and all were determined to be valid items testing at the appropriate level. Therefore, 1,550 items were used for the ISIP Early Reading item pool.

CAT Algorithm

The Computerized Adaptive Testing (CAT) algorithm is an iterative approach to test taking. Instead of giving a large, general pool of items to all test takers, a CAT test repeatedly selects the optimal next item for the test taker, bracketing their ability estimate until some stopping criteria is met.

The algorithm is as follows:
1.   Assign an initial ability estimate to the test taker
2.   Ask the question that gives you the most information based on the current ability estimate
3.   Re-estimate the ability level of the test taker
4.   If stopping criteria is met, stop. Otherwise, go to step 2

This iterative approach is made possible by using Item Response Theory (IRT) models. IRT models generally estimate a single latent trait (ability) of the test taker. and this trait is assumed to account for all response behavior. These models provide response probabilities based on test taker ability and item parameters. Using these item response probabilities, we can compute the amount of information each item will yield for a given ability level. In this way, we can always select the next item in a way that maximizes information gain based on student ability rather than percent correct or grade level expectations.

Though the CAT algorithm is simple, it allows for endless variations on item selection criteria, stopping criteria and ability estimation methods. All of these elements play into the predictive accuracy of a given implementation and the best combination is dependent on the specific characteristics of the test and the test takers.

In developing istation's CAT implementation, we explored many approaches. To assess the various approaches, we ran CAT simulations using each approach on a large set of real student responses to our items (1000 students, 700 item responses each). To compute the "true" ability of each student, we used Bayes expected a posteriori (EAP) estimation on all 700 item responses for each student. We then compared the results of our CAT simulations against these "true" scores to determine which approach was most accurate, among other criteria.

Ability Estimation

From the beginning, we decided to take a Bayesian approach to ability estimation, with the intent of incorporating prior knowledge about the student (from previous test sessions and grade-based averages). In particular, we initially chose Bayes EAP with good results. We briefly experimented with Maximum Likelihood (MLE) as well, but abandoned it because the computation required more items to converge to a reliable ability estimate.

To compute the prior integral required by EAP, we used Gauss-Hermite quadrature with 88 nodes from -7 to +7. This is certainly overkill, but because we were able to save runtime computation by pre-computing the quadrature points, we decided to err on the side of accuracy.

For the Bayesian prior, we used a standard normal distribution centered on the student's ability score from the previous testing period (or the grade-level average for the first testing period). We decided to use a standard normal prior rather than using σ from the previous testing period so as to avoid overemphasizing possibly out-of-date information.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Item Selection

For our item selection criteria, we simulated 12 variations on maximum information gain. The difference in accuracy between the various methods was extremely slight, so we gave preference to methods that minimized the number of items required to reach a satisfactory standard error (keeping the attention span of children in mind). In the end, we settled on selecting the item with maximum Fisher information. This approach appeared to offer the best balance of high accuracy and least number of items presented.

Stopping Criteria

We set a 5 item minimum and 20 item maximum per subtest. Within those bounds, we end ISIP Early Reading when the ability score's standard error drops below a preset threshold or when four consecutive items have each reduced the standard error by less than a preset amount.

Production Assessment

Item types were grouped according to key reading domains for the productions assessment. Beginning sound and phoneme blending were combined in to the Phonemic Awareness (PA) domain. Letter recognition and sounds were combined in to the Letter Knowledge (LK) domain. All vocabulary items were combined in to a single Vocabulary (VOC) domain.

Each grade-level (Kindergarten, 1st, 2nd, etc…) is given a different set of subtests depending on the domains expected by grade:

K: Phonemic Awareness, Letter Knowledge, and Vocabulary
1st: Phonemic Awareness, Letter Knowledge, Alphabetic Decoding, Vocabulary, Spelling, and Comprehension
2nd: Alphabetic Decoding, Vocabulary, Spelling, and Comprehension
3rd: Alphabetic Decoding, Vocabulary, Spelling, and Comprehension

These subtests are administered sequentially and treated as independent CAT tests. Items are selected from the full, non-truncated, item pool for each subtest, so students are allowed to demonstrate their ability regardless of their grade-level. Each subtest has its own ability estimate and standard error, with no crossing between the subtests. After all subtests are complete, an overall ability score is computed by running EAP on the entire response set from all subtests. Each subtest uses its own previous ability score to offset the standard normal prior used in EAP.

Scale scores used in the reporting of assessment results were constructed by a linear transformation of the raw ability scores (logits). The study resulted in a pool of 1,550 Kindergarten through Grade 3 items with reliable parameter estimates aligned on a common scale with the majority of items ranging from 140 to 289 in difficulty. See Figure 5 for sample items at various scale bands.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Figure 5. *Sample Items from ISIP Early Reading.*

	below 140	140-169	170-199	200-229	230-259	260-289	above 289
Vocabulary Knowing high frequency words and synonyms	brushing (picture)	car (picture)	saddle (picture)	grateful (synonym)	admire (synonym)	dwell (synonym)	protrude (synonym)
Letter Knowledge Recognizing letter names and sounds	x (name)	h (name)	q (name) f (sound)	E (sound)			
Phonemic Awareness Recognizing initial sounds and blending phonemes		rug c_a_t	nest b_oo_k	boat a_n_i_m_a_l			
Alphabetic Decoding Recognizing phonemes from non-words			nol	fom	brimert	bripfuscate	fornalibe
Spelling Constructing words from letters and punctuation			love	some	I'll	rifle	they're

972.643.3440 • fax: 972.643.3441 • www.istation.com

Comprehension Reading and deriving meaning from words and sentences			The girl is jumping on the bed. (select from a series of pictures)	Beth earned _____ washing dishes and cleaning her room. (select from a list of words) All of Ann's friends were busy. Nick was playing ball.... Jo was buying new shoes. Ann felt	All of Ann's friends were busy. Nick was playing ball.... Jo was buying new shoes. Ann felt (select from a list of words)	A weathered old fisherman and his lively and jolly wife lived in a small cottage by the sea.... But lately his luck had not been as good. His wife's heart was sad for her husband.... She was hoping that he might have had better (select from a list of words)	Scotland is undoubtedly one of the most beautiful countries in the world.... Perhaps Scotland is best known for its many lakes, called lochs, which reflect the turquoise and azure blue of the skies. Scotland's countryside has a great deal of (select from a list of words)

After completing this study, which included determining an appropriate IRT model, calibrating the items, and constructing the CAT algorithm, the ISIP Early Reading assessment went into full production starting in the 2008-2009 school year.

CHAPTER 4
ASSESSING THE TECHNICAL ADEQUACY FOR PRE-K

Data from ISIP Early Reading have been shown to be valid and reliable for students in Kindergarten through Grade 3 (istation, 2009). Although the initial set of items was targeted for students in Kindergarten through Grade 3, the items were developed for a wide range of abilities, including older students performing below grade level and younger students such as those in Pre-Kindergarten (Pre-K). To establish validity evidence for the younger population, data were collected during the 2009-2010 school year from eleven Pre-K classes at five elementary schools (A-E) in a large North Texas school district, which was different from the district used in the IRT calibration study or in the previous validity study. Demographics of the study participants are found in Table 14.

Table 14. *Student Demographics*

	Pre-K	
Students	179	
By School		
A	27	(15.1%)
B	33	(18.4%)
C	37	(20.7%)
D	28	(15.6%)
E	54	(30.2%)
By Gender		
Male	91	(50.8%)
Female	88	(49.2%)
By Race/Ethnicity		
African American	35	(19.6%)
Asian	26	(14.5%)
Hispanic	35	(19.6%)
Other	4	(2.2%)
Pacific Islander	1	(0.6%)
White	78	(43.6%)
Qualifying for Free/Reduced Lunch	140	(78.2%)
Receiving ESL Services	14	(7.8%)
In a Bilingual Classroom	2	(1.1%)
English Language Leaner (ELL)	17	(9.5%)
Having a disability	2	(1.1%)
Receiving Special Ed Services	2	(1.1%)

Note. Percentages may not add up to 100% for a given category, due to rounding.

The schools included in the study used ISIP throughout the 2009-2010 school year. At the beginning of each month, ISIP assessments were automatically administered to students during regularly scheduled computer lab time. Research Assistants from the Institute for Evidence-Based Education at Southern Methodist University (SMU) assisted teachers in proctoring ISIP. In addition to ISIP, SMU school coordinators administered external measures to participating students in each school over the course of a week in November. Prior to administering any external measures, the SMU Research Assistants underwent training on each instrument to increase inter-rater reliability. A four-group Latin squares design was utilized to reduce ordering effects. The external measures were selected based on the reading skills being measured, as well as their suitability for Pre-Kindergarten students, as indicated in Table 15.

Table 15. *Assessments Administered by Skill*

Assessment	*Letter Knowledge*	*Vocabulary*	*Phonemic Awareness*	*Comprehensive Ability*
ISIP Early Reading	Sep–Dec	Sep–Dec	Nov–Dec	Sep–Dec
ELSA	Nov		Nov	
Letter Names	Nov			
Letter Sounds	Nov			
PPVT-4		Nov		
TOPEL	Nov	Nov	Nov	Nov

The ISIP Early Reading assessment measures abilities in the domains of phonemic awareness, alphabetic knowledge, fluency with text, vocabulary, and comprehension. However, only the subtests Letter Knowledge (through alphabet letter recognition and letter-sound correspondence items), Vocabulary (through oral-picture correspondence items), and Phonemic Awareness (through initial sound and blending items) are appropriate for emergent readers enrolled in Pre-Kindergarten. At the end of each session, responses from all subtests are combined, and a comprehensive reading ability measure, called Overall Reading, is estimated using IRT.

Regarding the external measures used in the current study, the Early Literacy Skills Assessment (ELSA; DeBruin-Parecki, 2005) is unique in that the assessment is presented to students in the form of a children's storybook. ELSA measures Comprehension (through prediction, retelling, and connection to real life items), Phonological Awareness (through rhyming, segmentation, and phonemic awareness items), Alphabetic Principle (through sense of word, alphabet letter recognition, and letter-sound correspondence items), and Concepts about Print (through orientation, story beginning, direction of text, and book part items). ELSA is not norm-referenced. Instead, ELSA identifies children in one of three developmental levels for each subtest: Level 1, Early Emergent; Level 2, Emergent; and Level 3, Competent Emergent. Letter Names and Letter Sounds measure a student's ability to recognize each of the 26 letters, randomly presented, by name and by sound. The Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4; Dunn & Dunn, 2007) was designed to measure the oral vocabulary of children and adults. The Test of Preschool Early Literacy (TOPEL; Lonigan, Wagner, Torgesen, & Rashotte, 2007) was designed to identify students in Pre-Kindergarten who might be at risk for literacy problems that affect reading and writing. TOPEL consists of four subtests: Print Knowledge (through written language conventions and alphabetic knowledge items), Definitional Vocabulary (through oral vocabulary and word meaning items), Phonological Awareness (through elision and blending items), and a composite score known as the Early Literacy Index. Both PPVT-4 and TOPEL are norm-referenced tests.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Reliability Evidence

Cronbach's (1951) coefficient alpha is often used as an indicator of reliability across test items within a testing instance. However, alpha assumes that all students in the testing instance respond to a common set of items. Due to its very nature, a CAT-based assessment such as ISIP Early Reading will present students with a custom set of items based on initial estimates of ability and response patterns. The IRT analogue to classical internal consistency is marginal reliability (Bock & Mislevy, 1982), and it can be used with Cronbach's alpha to directly compare the internal consistencies of classical test data to IRT-based test data. ISIP Early Reading has stopping criteria based on minimizing the standard error of the ability estimate. Therefore, the lower limit of the marginal reliability of the data for any testing instance of ISIP will always be approximately 0.90.

To establish test-retest reliability evidence, Pearson product moment correlation coefficients between ISIP Early Reading administrations were computed. Results for ISIP Letter Knowledge, Vocabulary, and Overall Reading ability range from 0.532 to 0.735 across four months of testing sessions, September to December, as indicated in Tables 16 through 18. Students had to demonstrate minimal ability before being presented the ISIP Phonemic Awareness subtest, unlike the ISIP Letter Knowledge and Vocabulary subtests, both of which all students were given every month. In November only four students met the criteria, and in December only 23 students met the criteria. Therefore, there was insufficient power to perform statistical analysis for Phonemic Awareness reliability.

Table 16. *ISIP Early Reading Letter Knowledge Test-Retest Reliabilitya between Testing Sessions*

	Sep	*Oct*	*Nov*	*Dec*
Sep	---			
Oct	0.632** (171)	---		
Nov	0.650** (165)	0.699** (172)	---	
Dec	0.538** (163)	0.532** (170)	0.735** (167)	---

[a]Pearson product moment correlations *(r)*.
**Statistically significant *(H0: r=0) at p<.01*.
Note. Sessions occurred at the start of the month indicated. N for each correlation is within parentheses.

Table 17. *ISIP Early Reading Vocabulary Test-Retest Reliabilitya between Testing Sessions*

	Sep	*Oct*	*Nov*	*Dec*
Sep	---			
Oct	0.683** (171)	---		
Nov	0.577** (168)	0.658** (175)	---	
Dec	0.571** (169)	0.691** (176)	0.644** (173)	---

[a]Pearson product moment correlations *(r)*.
**Statistically significant *(H0: r=0) at p<.01*.
Note. Sessions occurred at the start of the month indicated. N for each correlation is within parentheses.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table 18. *ISIP Early Reading Overall Reading Test-Retest Reliability[a] between Testing Sessions*

	Sep	*Oct*	*Nov*	*Dec*
Sep	---			
Oct	0.687** (171)	---		
Nov	0.706** (168)	0.701** (175)	---	
Dec	0.669** (169)	0.652** (176)	0.707** (173)	---

[a]Pearson product moment correlations *(r)*.
**Statistically significant *(H0: r=0) at p<.01*.
Note. Sessions occurred at the start of the month indicated. *N* for each correlation is within parentheses.

Validity Evidence

Content validity was established through a series of steps to substantiate the test development process. First, early reading content experts Patricia Mathes and Joe Torgesen created ISIP Early Reading assessment items in key developmental areas, as suggested by the National Reading Panel (National Institute of Child Health and Human Development, 2000). Next, the items underwent review by a panel of reading specialists. The items were piloted and then operationally used in a previous version of ISIP and revised as necessary. For ISIP Early Reading, the items were calibrated under a 2PL-IRT model. Finally, item parameters were examined, and those items with unacceptable fit statistics in regard to the subtest they measured were removed from the pool. Based on the combined processes used to establish content validity, the items in the operational pool, grouped by subtest, are believed to be accurate representations of the domains they intend to measure.

Concurrent validity evidence was established by computing Pearson product moment correlation coefficients between ISIP Early Reading subtests and appropriate external measures, as illustrated in Table 19. Because students had to demonstrate minimal ability before being presented the ISIP Phonemic Awareness subtest, only four students met the criteria in November. Therefore, December ISIP Phonemic Awareness scores were used for validity analysis.

Table 19. *Correlations[a] between External Measures and ISIP Early Reading Scores*

ISIP Subtest *External Measure*	*r (N)*
ISIP Letter Knowledge (November)	
ELSA Alphabetic Principle Level	0.747** (172)
ELSA Upper Case Subtest Score	0.726** (172)
ELSA Lower Case Subtest Score	0.692** (172)
ELSA Letter Sounds Subtest Score	0.636** (172)
Letter Name Score	0.727** (172)
Letter Sound Score	0.669** (172)
TOPEL Print Knowledge Std Score	0.735** (170)
ISIP Vocabulary (November)	
PPVT-4 Std Score	0.625** (173)
TOPEL Definitional Vocabulary Std Score	0.520** (173)
ISIP Phonemic Awareness (December)	
ELSA Phonological Awareness Total Score	0.549** (23)
ELSA Rhyming Subtest Score	0.485* (23)
ELSA Phonemic Awareness Subtest Score	0.620** (23)
TOPEL Phonological Awareness Std Score	0.242 (23)
ISIP Overall Reading (November)	
TOPEL Total Std Score	0.677** (173)
TOPEL Early Literacy Index	0.676** (173)

[a]Pearson product moment correlations *(r)*.
*Statistically significant *(H0: r=0)* at *p<.05*. **Statistically significant *(H0: r=0)* at *p<.01*.
Note. Sessions occurred at the start of the month indicated. *N* for each correlation is within parentheses.

Discussion

Regarding measures of reliability in the current study for Pre-Kindergarten students, ISIP Early Reading produced stable scores over time, even between testing instances four months apart (see Tables 16–18). These test-retest reliability results could stem from a number of converging reasons. First, the exit criteria of the adaptive algorithm used in ISIP produces consistently strong levels of internal consistency, at approximately 0.90, both in the subtest ability scores and in the overall reading ability scores. Second, the authors, reading experts Patricia Mathes and Joe Torgesen, took great care in constructing the ISIP Early Reading item pool, basing the item types and content on contemporary findings in early reading research. Furthermore, the ISIP Early Reading items have been operational for several years in previous versions of the program. Inconsistent items have been culled over time, resulting in a very stable item pool. Finally, ISIP Early Reading is an engaging and adaptive computer-based assessment program. Items are presented to students at their ability level and using high-quality computer animation. Students feel like they are "playing a game" rather than "taking another test," which probably results in less off-task behavior during assessments, producing more consistent results.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Evidence of concurrent validity can be found in the numerous strong, positive relationships to external measures of reading constructs. Cohen (1988) suggested that correlations around 0.3 could be considered moderate and those around 0.5 could be considered large. Hopkins (2010) expanded the upper end of Cohen's scale to include correlations around 0.7 as very large and those around 0.9 as nearly perfect. Given those criteria, the data from the current study show mostly large to very large criterion validity with scores from well-known, norm-referenced measures such as TOPEL and PPVT-4, as well as the authentic assessment, ELSA.

Specifically for letter knowledge, scores from the ISIP Letter Knowledge (LK) subtest showed strong, positive correlations to scores from comparable ELSA subtests, such as the Upper Case ($r = 0.726$), Lower Case ($r = 0.692$), and Letter Sounds ($r = 0.636$) subtests. In addition, ISIP LK scores correlated very well with Letter Names ($r = 0.727$) and Letter Sounds ($r = 0.669$), as well as TOPEL Print Knowledge ($r = 0.735$). These results suggest that the ISIP Letter Knowledge subtest measures the same construct as other early reading assessments.

Regarding vocabulary, PPVT-4 is most similar to the item format used in ISIP Vocabulary for students with early-emergent reading abilities, namely oral-picture correspondence. Therefore, it is not surprising that the correlation between the two sets of scores was large ($r = 0.625$). TOPEL Definitional Vocabulary (DV) also uses the oral-picture correspondence item format, but it adds a task in which participants state the meaning of the target word. Appropriately, the correlation between ISIP Vocabulary and TOPEL DV scores ($r = 0.520$) was somewhat less than that between ISIP and PPVT-4 scores, but it is still considered large.

Participants had to demonstrate repeated minimal ability in ISIP Early Reading to be offered the ISIP Phonemic Awareness (PA) subtest. Because students first took ISIP in September, the first opportunity to take ISIP PA as a Pre-Kindergarten student was in November, when 4 students met the criteria. With insufficient power to compute correlations to external measures, it was decided that ISIP PA scores from December ($N = 23$) would be used for validity analyses, even though the collection of external measures data occurred in November. Both ELSA and TOPEL assess the broader concept of phonological awareness, including onset, rime, and segmentation, whereas ISIP PA assesses phonemic awareness concepts such as initial sound and phoneme blending. The correlation between ISIP PA and ELSA Phonemic Awareness subtest scores ($r = 0.620$) was large. However, even the phonological concept of rhyming (as measured by the ELSA Rhyming subtest) correlated well with ISIP PA scores ($r = 0.485$). The overall correlation between ELSA Phonological Awareness and ISIP Phonemic Awareness scores was large ($r = 0.549$). ISIP PA scores did not show any meaningful correlation to TOPEL Phonological Awareness standard scores ($r = 0.242$). However, the correlation between TOPEL Phonological Awareness standard scores and ELSA Phonological Awareness total scores was equally insignificant ($r = 0.278$). This suggests that the ISIP Phonemic Awareness subtest and the ELSA phonological/phonemic subtests were measuring the same construct, but this construct was very different from the construct measured by the TOPEL Phonological Awareness subtest.

Finally, ISIP Early Reading computes a comprehensive measure of reading ability, called Overall Reading, through IRT modeling that utilizes the response pattern from all subtests in a testing session. Scores from ISIP Overall Reading correlated highly with the total standard scores from the TOPEL ($r = 0.677$) and with the TOPEL Early Literacy Index ($r = 0.676$), which is a 7-level interpretation of performance, ranging from Very Poor to Very Superior.

Taken together, the evidence supports the claim that ISIP Early Reading produces reliable and valid data for measuring key domains of emerging reading, such as letter knowledge, vocabulary, phonemic awareness, and comprehensive reading ability, for students in Pre-Kindergarten.

CHAPTER 6
RELIABILITY AND VALIDITY OF ISIP EARLY READING FOR KINDERGARTEN – 3RD GRADE

The primary objective of this study was to establish the technical adequacy of the CAT-based ISIP Early Reading assessment for students in Kindergarten through 3rd Grade. This comprised of conducting test-retest reliability and concurrent and predictive validity work. We compared ISIP Early Reading scores to scores from norm-referenced measures with good psychometric properties of similar constructs.

To establish reliability and validity evidence, data were collected during the 2008-09 school year at five elementary schools (A-E) from a large north Texas independent school district, which was different from the district used in the IRT calibration study. Demographics of the study participants are found in Table 4.

Table 4. *Student Demographics*

	Grade Level					
	K	*1*	*2*	*3*		*K-3*
Students	122	103	95	96	416	
By School						
A	20	16	15	19	70	(16.8%)
B	21	15	18	18	72	(17.3%)
C	43	37	36	16	132	(31.7%)
D	17	15	11	12	55	(13.2%)
E	21	20	15	31	87	(20.9%)
By Gender						
Male	68	55	52	40	215	(51.7%)
Female	54	48	43	56	201	(48.3%)
By Ethnicity						
African American	21	28	17	10	76	(18.3%)
Caucasian	48	31	32	18	129	(31.0%)
Hispanic	40	38	40	65	183	(44.0%)
Asian	13	6	4	3	26	(6.3%)
Other	0	0	2	0	2	(0.5%)
Qualifying for Free/Reduced Lunch	63	52	44	73	232	(55.8%)
Qualifying for ESL Services	20	15	13	27	75	(18.0%)
Receiving ESL Services	17	15	10	25	67	(16.1%)
In a Bilingual Classroom	0	0	0	32	32	(7.7%)
Receiving Special Ed Services	1	5	6	7	19	(4.6%)

Note. Percentages may not add up to 100% for a given category due to rounding.

Research Design

A seven group Latin squares design was utilized to reduce ordering effect. Students were given assessments for reading skills appropriate for their age as indicated in Tables 5 and 6.

Table 5. *CPM and Other Assessments Administered by Grade*

Grade Level	ISIP Early Reading							DIBELS			TPRI[a]	ITBS[a]	TAKS[a]
	PA	LK	AD	SPL	TF	CMP	VOC	PSF	NWF	ORF			
K	X	X	X				X	X	X		X		
1	X		X	X	X	X	X	X	X	X		X	
2			X	X	X	X	X		X	X		X	
3				X	X	X	X			X			X

[a]Tests administered by the district.

Table 6. *External Measures Administered by Grade*

Grade Level	External Measures							
	CTOPP	LN/LS	WLPB-R	TOWRE	WIAT-II	WJ-III	GORT-4	PPVT-III
K	X	X	X	X				X
1	X		X	X	X	X	X	X
2			X	X	X	X	X	X
3			X		X	X	X	X

Seven thirty-minute testing sessions occurred every two weeks between October and February (Oct 20, Nov 3, Nov 17, Dec 8, Jan 12, Jan 26, and Feb 9). For each session, students were escorted to the school's computer lab in convenience groupings by trained data collectors from Southern Methodist University (SMU), for sessions on the CAT-based ISIP Early Reading program. On average, six items were needed per subtest to establish an ability estimate with a standard error below the threshold, resulting in 13-18 minute ISIP testing sessions, depending on the number of skills assessed. The remaining time in each session was spent administering external measures.

The key reading domains measured by ISIP Early Reading were Phonemic Awareness (PA), Letter Knowledge (LK), Alphabetic Decoding (AD), Spelling (SPL), Text Fluency (TF), Comprehension (CMP), and Vocabulary (VOC). All subtests except Text Fluency are CAT-based, and are measured on a common scale. Text Fluency is a maze task and has a proprietary scoring mechanism.

The standard CPM measure against which our test was compared was the *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS: Kaminski & Good, 1996; Good & Kaminski, 1996; 2002). *Phoneme Segmentation Fluency* (PSF) assesses a student's ability to fluently segment three- and four-phoneme words into their individual phonemes. The reliability coefficient is 0.88 for a single probe and 0.96 for the mean of 5 probes. Concurrent and predictive validity with a variety of reading tests ranges from 0.45 to 0.68. *Nonsense Word Fluency* (NWF) tests a child's alphabetic decoding ability. The reliability coefficient is 0.92 for a single probe and 0.98 for the mean of 5 probes. Concurrent and predictive validity with a variety of reading tests ranges from 0.59 to 0.82. *Oral Reading Fluency* (ORF) requires the student to orally read a passage geared to the student's grade level; predictive validity of ORF administered in January during kindergarten with oral reading fluency administered in Spring during first grade is 0.45; predictive validity with the *Woodcock-Johnson Psycho-Educational Battery* Total Reading Cluster score is 0.36.

972.643.3440 • fax: 972.643.3441 • www.istation.com

The *Texas Primary Reading Inventory* (TPRI; Texas Education Agency, 1998) was administered to all Kindergarten students by the district three times during the school year: beginning of the year (BOY), middle of the year (MOY), and end of the year (EOY). The *Iowa Tests of Basic Skills* (ITBS; Hoover, Dunbar, & Frisbie, 2007) was administered by the district in October to all students in Grades 1 and 2. The *Texas Assessment of Knowledge and Skills* (TAKS; Texas Education Agency, 2003) was administered by the district in October to all students in Grades 3. These data for students in the current study were provided by the district at the end of the school year.

Furthermore, one or more additional external measures were administered during each session. These additional assessments include well known instruments in Phonemic Awareness: *Comprehensive Test of Phonological Processes* (CTOPP; Wagner, Torgesen, & Rashotte, 1999); Letter Knowledge: *Woodcock Language Proficiency Battery-Revised* (WLPB-R; Woodcock, 1991); Alphabetic Decoding: *Test of Word Reading Efficiency* (TOWRE; Torgesen, Wagner, & Rashotte, 1999), WLPB-R, and *Wechsler Individual Achievement Test* (WIAT-II; Wechsler, 2005); Spelling: *Woodcock-Johnson III Tests of Achievement* (WJ-III ACH; Woodcock, McGrew, & Mather, 2001) and WIAT-II; Vocabulary: *Peabody Picture Vocabulary Test* (PPVT-III; Dunn & Dunn, 1997) and WLPB-R; and Comprehension: *Gray Oral Reading Tests* (GORT-4; Wiedeholt & Bryant, 2001), WLPB-R, and WIAT-II.

The WLPB-R is a well-standardized instrument whose normative sample was concordant with 1980 US Census statistics, consisted of 6,359 subjects (3,245 in K to 12), and was the same as that of the Woodcock-Johnson Psychoeducational Battery – Revised (Woodcock & Johnson, 1989). Median coefficient alphas range from 0.81 to 0.92 across all age ranges (and from 0.77 to 0.96 at ages 6 to 9) for the subtests utilized; test-retest measures for selected subtests in a sample of 504 ranged from 0.75 to 0.95. In addition, content, concurrent, and construct validity data is also available in the WLPB-R manual (Woodcock, 1991).

The CTOPP has nine subtests measuring phonological awareness (PA), rapid naming (RN), and phonological memory (PM). The normative base consisted of 1,656 individuals from ages 5 to 24, similar to the 1997 US Census statistics. Coefficient alphas for all three composites in the entire normative sample ranged from 0.83 to 0.95, and 0.83 to 0.92 in the age range of this sample; test-retest estimates in a small sample (n = 32) of children aged 5 to 7 ranged from 0.70 to 0.92 for the 3 composites. In addition, content, concurrent, predictive, and construct validity data is provided in the CTOPP manual (Wagner et al., 1999).
PPVT-III is a measure of expressive vocabulary. Reliability coefficients range from Alpha of 0.92 to 0.98. In addition, content, concurrent, predictive, and construct validity data is provided in the PPVT-4 manual (Dunn & Dunn, 2006).

The TOWRE is a measure of the accuracy and fluency of the word reading process (Torgesen, et al, 1999). The phonemic decoding efficiency subtest measures the number of nonwords students can pronounce in 45 seconds from a list that gradually increases in difficulty. The sight word (real word) efficiency subtest has a similar structure, but the list is composed of high frequency words. Reliability coefficients are 0.95 and 0.96 respectively. Content, concurrent, and construct validity data is also available in the TOWRE manual (Torgesen, et al., 1999).

The WIAT-II was standardized using a total sample of 5,586 individuals, with two standardization samples drawn for PreK-12 (ages 4-19) and for the college-adult population. Both standardization samples were stratified based on the data from the 1998 U.S. Census Bureau, including grade, age, sex, race-ethnicity, geographic region, and parent education level. Age-based (4-19) average reliability coefficients on the spelling and reading comprehension subtests were .94 and .95, while grade-based (K-12) reliability coefficients were .93 and .93, respectively. In addition, content, concurrent, predictive, and construct validity data is provided in the WIAT-II manual (Wechsler, 2005).

The WJ-III ACH is a comprehensive instrument whose normative sample consisted of 8,818 subjects ranging in age from 24 months to 90 years (4,783 in K to 12) drawn from over 100 geographically diverse U.S. communities and selected to be representative of the U.S. population. Median reliability coefficient alphas for the standard battery for tests 1-12, all age groups, ranged from .81 to .94. Coefficient alphas for the spelling subtest of children aged 6-9, ranged from .89 to .92. The median coefficient alpha across all ages for the spelling subtest was .90. Test-retest reliabilities for the spelling subtest of children aged 4-7 (n=106) and 8-10 (n=145) were .91 and .88, respectively, with the median retest reliability of children aged 4 -17 (n=449) reported to be .95. In addition, content, concurrent, predictive, and construct validity data is provided in the WJ-III manual (Woodcock, et al, 2001).

The GORT-4 measures oral reading rate, accuracy, fluency, and comprehension. The normative sample consisted of 1677 students ranging in age from 6 through 18 and was stratified to correspond with demographic characteristics reported by the U.S. Census Bureau in 1997. The coefficient alphas related to content sampling, test-retest, and scorer differences for the Form A comprehension subtest utilized are .97, .86., and .96, respectively. In addition, content, concurrent, predictive, and construct validity data is provided in the GORT-4 manual (Wiederholt & Bryant, 2001).

Reliability

Internal Consistency

Cronbach's (1951) coefficient alpha is typically used as an indicator of reliability across test items within a testing instance. However, Cronboch's Alpha is not appropriate for any IRT based measure because alpha assumes that all students in the testing instance respond to a common set of items. Due to its very nature, students taking a CAT-based assessment, such as ISIP Early Reading, will receive a custom set of items based on their initial estimates of ability and response patterns. Thus, students do not respond to a common set of items.

The IRT analogue to classical internal consistency is marginal reliability (Bock & Mislevy, 1982) and thus applied to ISIP Early Reading. Marginal reliability is a method of combining the variability in estimating abilities at different points on the ability scale into a single index. Like Cronbach's alpha, marginal reliability is a unitless measure bounded by 0 and 1, and it can be used with Cronbach's alpha to directly compare the internal consistencies of classical test data to IRT-based test data. ISIP Early Reading has a stopping criteria based on minimizing the standard error of the ability estimate. As such, the lower limit of the marginal reliability of the data for any testing instance of ISIP Early Reading will always be approximately 0.90.

Test-Retest Consistency

To establish test-retest reliability evidence, Pearson product moment correlation coefficients between ISIP Early Reading sessions were computed. Results for overall reading ability range from 0.927 to 0.970 (N = 416) across all seven sessions spanning from October to February. Table 7 shows the individual test-retest reliability results for overall reading ability with all grades combined.

Table 7. *ISIP Early Reading Overall Reading Test-Retest Reliabilitya between Testing Sessions for all grades combined*

	Oct 20	Nov 3	Nov 17	Dec 8	Jan 12	Jan 26	Feb 9
Oct 20	---						
Nov 3	0.970	---					
Nov 17	0.962	0.975	---				
Dec 8	0.947	0.962	0.969	---			
Jan 12	0.946	0.963	0.964	0.960	---		
Jan 26	0.936	0.956	0.962	0.960	0.963	---	
Feb 9	0.927	0.945	0.951	0.949	0.958	0.961	---

[a]Pearson product moment correlations *(r)*.
Note. Sessions were two weeks in length and started on the date indicated.

Validity Evidence

Construct Validity

Much prior work done has been done to establish construct validity of our item pool. The decision to include certain types of items builds on the vast amount of work alluded to in prior sections, describing what types of activities and skills predict a child's later reading performance. Thus, in designing ISIP Early Reading, we included only reading domains shown to meaningfully predict reading performance. In order to determine how to assess each domain, we utilized our collective expertise. In particular, we built upon Dr. Torgesen's prior work in developing items for the *Comprehensive Test of Phonological Processing* (CTOPP; Wagner, Torgesen, & Rashotte, 1999), and the *Test of Word Reading Efficiency* (TOWRE: Torgesen, Wagner, & Rashotte, 1999.) Of course, given that ISIP is computer-administered, we knew that many types of items could not be delivered in the same manner. Thus, we tested administration of each item, first in a graphic mock-up form, then as a computer delivered item. This procedure allowed us to "tinker" with item art and directions, until we were satisfied that there were no unintended confusions presented by the art, that the art was culture free, and that each item's correct response and distracters were operating as intended. The essence of this original art has been preserved in ISIP Early Reading. Items that were confusing to children were removed from the item pool. The result is a pool of items conforming to current understanding of how reading develops and how to measure it.

Furthermore, the items were calibrated under a 2PL-IRT model. Item parameters were examined, and those items with unacceptable fit statistics, with regards to the subtest which they measured, were removed from the pool. Based on the combined processes used to establish content validity, the items in the operational pool grouped by subtest are believed to be accurate representations of the domain which they intend to measure.

Concurrent Validity

Concurrent validity evidence was established by computing Pearson product moment correlation coefficients between ISIP Early Reading subtests and appropriate external measures. Table 8 shows results by grade level. During each of the seven testing sessions, both ISIP Early Reading and DIBELS were administered to the students in the study. Pearson correlations between DIBELS and ISIP Early Reading are shown in Table 9. Prior to testing, the SMU testers were trained on administering DIBELS. Inter-rater reliability was ensured during training so that no more than a two point difference in scoring occurred between testers.

972.643.3440 • fax: 972.643.3441 • www.istation.com

The *Texas Primary Reading Inventory* (TPRI; Texas Education Agency, 1998) was administered to all Kindergarten students by the district three times during the school year: beginning of the year (BOY), middle of the year (MOY), and end of the year (EOY). Data for students in the current study were provided by the district at the end of the school year. It is unknown when these testing administrations occurred, so data from the most appropriate ISIP Early Reading testing sessions were used in the comparisons. The study concluded in February, so correlations for EOY (presumably administered in May) were not performed. Pearson correlations between TPRI subtests and ISIP Early Reading subtests for BOY and MOY are found in Table 10. The training and inter-rater reliability of the district testers is unknown.

Table 8. *Correlations between External Measures and ISIP Early Reading Subtest Scores*

ISIP Early Reading Subtest	External Measure		Grade Level				
			K	**1**	**2**	**3**	**K-3**
Phonemic Awareness (PA)	CTOPP Blending Words	*r*	**.688**	**.431**			**.702**
		N	120	100			220
	CTOPP Blending Non Words	*r*	**.676**	**.336**			**.650**
		N	120	100			220
	CTOPP Segmenting Words	*r*	**.644**	**.344**			**.620**
		N	122	101			223
	CTOPP Sound Matching	*r*	**.624**	**.474**			**.662**
		N	122	101			223
Letter Knowledge (LK)	Letter Names	*r*	**.593**				**.593**
		N	121				121
	Letter Sounds	*r*	**.693**				**.693**
		N	121				121
	WLPB-R Letter Word ID	*r*	**.711**				.711
		N	120				120
Alphabetic Decoding (AD)	TOWRE Phonemic Decoding	*r*	**.582**	**.679**	**.539**		**.838**
		N	122	103	93		313
	TOWRE Sight Word Efficiency	*r*	**.583**	**.626**	**.586**		**.811**
		N	120	100	93		313
	WLPB-R Word Attack	r	**.535**	**.701**	**.702**		**.830**
		N	122	102	94		316
	WIAT-II Target Words	r		**.624**	**.507**		**.589**
		N		101	92		193
Spelling (SPL)	WJ-III Spelling	r		**.800**	**.823**	**.798**	**.890**
		N		103	94	96	293
	WIAT-II Spelling	r		**.726**	**.774**	**.788**	**.875**

Connected Text Fluency (TF)	DIBELS ORFa	N		101	91	96	288
		r		.741	.667	.627	.766
Comprehension (CMP)	GORT-4 Comprehension	N		103	92	94	289
		r		.456	.354	.473	.621
	WLPB-R Comprehension	N		102	95	94	291
		r		.707	.597	.569	.794
	WIAT-II Comprehension	N		102	92	93	287
		r		.630	.554	.596	.682
Vocabulary (VOC)	PPVT-III	r	.687	.696	.582	.785	.814
		N	121	101	94	95	411
	WLPB-R Vocabulary	r	.368	.656	.702	.716	.836
		N	121	103	94	96	414

aFeb 9 session data used for correlations.

Note. Empty cells indicate no students were administered the instrument for the grade level.

Table 9. *Correlations between DIBELS and ISIP Early Reading Subtest Scores for Grades K-3*

		PSF & PA					NWF & AD					ORF & TF				
		Grade Level					*Grade Level*					*Grade Level*				
		K	1	2	3	K-3	K	1	2	3	K-3	K	1	2	3	K-3
Oct	r	.65	.48			.71	.45	.43	.38		.72		.66	.70	.81	.83
	N	98	92			190	96	94	84		274		87	81	73	241
Nov[1]	r	.61	.39			.68	.43	.52	.50		.79		.59	.71	.71	.79
	N	121	103			224	121	103	93		317		100	93	91	284
Nov[2]	r	.71	.37			.71	.58	.57	.52		.81		.66	.74	.73	.83
	N	121	102			223	121	102	93		316		102	93	96	291
Dec	r	.65	.41			.65	.57	.64	.61		.82		.64	.68	.62	.75
	N	121	102			223	121	102	92		315		101	93	94	288
Jan[1]	r	.62	.24			.56	.61	.49	.65		.80		.59	.71	.60	.75
	N	120	102			222	120	102	86		308		102	91	95	288
Jan[2]	r	.53	.17			.48	.55	.59	.51		.78		.66	.71	.65	.78
	N	121	102			223	121	102	91		314		102	91	94	287
Feb	r	.50	.25			.52	.60	.54	.44		.76		.74	.67	.63	.77
	N	122	102			224	122	103	92		317		103	92	94	289

Note. Empty cells indicate no students were administered the instrument for the grade level.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table 10. *Correlations[a] between TPRI Subtest Scores and ISIP Early Reading Subtest Scores for Kindergarten*

| | | ISIP Early Reading Phonemic Awareness | | | | | ISIP EARLY READING Letter Knowledge | |
		Rhy[b]	*BWP[c]*	*BP[d]*	*DIS[e]*	*DFS[f]*	LN[g]	LtSL[h]
BOY[i]	*r*	**.48**	**.56**	**.56**	**.48**	**.40**	**.73**	**.56**
	N	109	97	91	88	88	109	97
MOY[j]	*r*	**.33**	**.60**	**.60**	**.56**	**.56**	**.63**	**.55**
	N	109	101	98	97	88	109	106

[a]Pearson product moment correlations *(r)*. TPRI subtest = [b]Rhyming. [c]Blending Word Parts. [d]Blending Phonemes. [e]Deleting Initial Sounds. [f]Deleting Final Sounds. [g]Letter Name Identification. [h]Letter to Sound Linking. [i]BOY = ISIP Early Reading Nov 17 session data used for correlations. [j]MOY =ISIP Early Reading Jan 12 session data used for correlations.

Note. TPRI administered by the district. It is unknown when in the school year TPRI was administered, by whom, or under what conditions.

The Iowa Tests of Basic Skills (ITBS; Hoover, Dunbar, & Frisbie, 2007) was administered by the district in October to all students in Grades 1 and 2. Data for students in the current study were provided by the district at the end of the school year. Pearson correlations between ITBS Reading and ISIP Early Reading overall reading ability scores are shown in Table 11.

Table 11. *Correlationsa between ITBS Reading Scale Scores and ISIP Early Reading Overall Reading Scores for Grades 1 and 2*

Testing Session		*Grade Level* 1	2	*1-2*
Oct 20	*r*	**.807**	**.845**	**.895**
	N	62	75	137
Nov 3	*r*	**.808**	**.821**	**.884**
	N	65	78	143
Nov 17	*r*	**.793**	**.839**	**.888**
	N	65	78	143
Dec 8	*r*	**.806**	**.741**	**.845**
	N	65	78	143
Jan 12	*r*	**.748**	**.837**	**.874**
	N	64	78	142
Jan 26	*r*	**.725**	**.806**	**.854**
	N	65	78	143
Feb 9	*r*	**.699**	**.768**	**.829**
	N	65	77	142

[a]Pearson product moment correlations *(r)*. *Note.* ITBS administered by the district in October.

To establish predictive validity evidence, Pearson correlations between ISIP Early Reading overall reading ability and the state-mandated *Texas Assessment of Knowledge and Skills* (TAKS; Texas Education Agency, 2003) were computed for Grade 3. Results are found in Table 12. TAKS was administered by the district in March. Furthermore, ROC analysis was conducted to determine the power to which ISIP Early Reading Overall Reading scores from January predicted a passing status on TAKS Reading in March (Macmillan & Creelman, 2005). Table 13 shows the contingency table for the data, resulting in an instrument sensitivity of 85.7%, specificity of 95.7%, positive prediction power (precision) of 66.7%, and a false positive rate of 4.3%. The subsequent ROC graph, with an area under the curve (Az) of 89.8%, is displayed in Figure 6.

Table 12. *Correlationsa between TAKS Reading Scale Scores and ISIP Scores plus DIBELS ORF Scores for Grade 3*

Testing Session		Fluency with Text	ISIP Vocabulary	Comprehension	Overall Reading	DIBELS ORF
Oct 20	r	.641	.697	.678	.740	.630
	N	63	64	64	64	60
Nov 3	r	.665	.660	.598	.741	.551
	N	75	74	74	74	75
Nov 17	r	.677	.652	.625	.698	.598
	N	77	77	77	77	77
Dec 8	r	.617	.652	.586	.695	.450
	N	77	77	77	77	76
Jan 12	r	.649	.645	.580	.698	.582
	N	76	76	76	76	77
Jan 26	r	.492	.687	.648	.741	.555
	N	75	74	74	74	75
Feb 9	r	.667	.637	.607	.710	.533
	N	76	77	77	77	76

[a]Pearson product moment correlations *(r)*.

Note. TAKS administered by the district in March.

Table 13. *Contingency Table for ISIP Early Reading Overall Reading Score in January Predicting TAKS Reading Passing Condition in March for Grade 3*

		TAKS Reading Not Passing	Passing	Total
ISIP Early Reading	< 227a	6	3	9
Overall Reading Score	>= 227	1	67	68
	Total	7	70	77

[a]The Overall Reading score of 227 is associated with the 20th percentile for students in Grade 3 taking ISIP Early Reading in January.

972.643.3440 • fax: 972.643.3441 • www.istation.com

Figure 6. *ROC Graph for ISIP Early Reading Overall Reading as a TAKS Reading Predictor for Grade 3.*
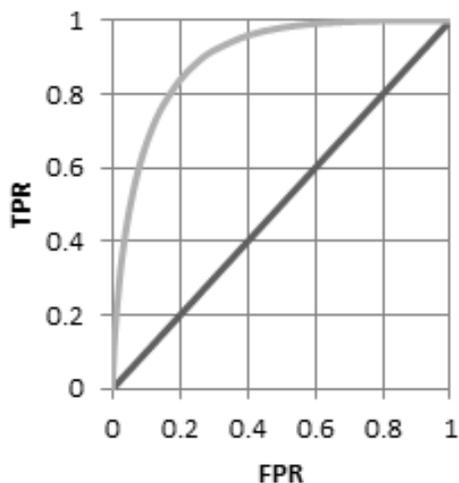
Discussion

Reliability and validity are two important qualities of measurement data. Reliability can be thought of as consistency, either consistency over items within a testing instance or over scores from multiple testing instances, whereas validity can be thought of as accuracy, either accuracy of the content of the items or of the constructs being measured. In this study, both qualities were examined using ISIP Early Reading data collected from Kindergarten through Grade 3 students in north Texas elementary schools during the 2008-09 school year.

Regarding measures of reliability, the data from the current study suggest consistently high levels of internal consistency, both in the subtest ability scores as well in the overall reading ability scores. In addition, ISIP Early Reading produced extremely stable scores over time, even between testing instances five months apart. These outstanding results could stem from a number of converging reasons. First, the authors, reading experts Drs. Patricia Mathes and Joe Torgesen, took great care in constructing the ISIP Early Reading item pool. They utilized the most up-to-date findings in early reading research as a basis for the item types and content they produced for istation. Furthermore, the ISIP Early Reading items have been operational for several years in previous versions of the program. Inconsistent items have been culled over time, resulting in a very stable item pool. Finally, ISIP Early Reading is an engaging and adaptive computer-based assessment program. Items are presented to students at their ability and using high quality computer animation. Students feel they are "playing a game" rather than "taking another test," which probably results in less off-task behavior during assessment, producing more consistent results.

Evidence of concurrent validity, can be found in the numerous strong, positive relationships to external measures of reading constructs. Cohen (1988) suggested correlations around 0.3 could be considered moderate and those around 0.5 could be considered large. Hopkins (2009) expanded the upper end of Cohen's scale to include correlations around 0.7 as very large, and those around 0.9 as nearly perfect. Given those criteria, the data from the current study show mostly large to very large criterion validity with scores from well known external measures, such as CTOPP, GORT-4, PPVT-III, TOWRE, WJ-III ACH, WLPB-R, and WIAT-II, as well as with TPRI and ITBS. In addition, validity results show that ISIP Overall Reading is a stronger predictor than DIBELS ORF for TAKS Reading, using scores from one to five months prior to TAKS administration. Taken together, the evidence supports the claim that ISIP Early Reading produces reliable and valid data for measuring key areas of reading development, such as phonemic awareness, alphabetic knowledge, vocabulary, and reading comprehension, as well as overall reading ability.

972.643.3440 • fax: 972.643.3441 • www.istation.com

CHAPTER 7:
DETERMINING NORMS

The primary objective of this study was to establish norms for the CAT-based ISIP Early Reading assessment for students in Kindergarten through 3rd Grade. These norms enable teachers, parents, and students to know how their students' scores compare with a representative sample of children in their particular grade.

The norming samples were obtained as part of istation's ongoing research in assessing reading ability. The samples were drawn from enrolled ISIP Early Reading users during the 2009-2010 school year. In total, the ISIP Early Reading scores from 496,102 students were considered to establish norms. The state distributions for the sample are found in Table 20.

Table 20. *State Distributions for* ISIP Early Reading *Norming Sample*.

State	Frequency	Percent
Arizona	1115	0.2
California	11461	2.3
Colorado	1437	0.3
Florida	98952	19.9
Georgia	8657	1.7
Illinois	4523	0.9
Indiana	4255	0.9
Kentucky	1351	0.3
Maryland	11934	2.4
Missouri	4186	0.8
Mississippi	1987	0.4
North Carolina	2532	0.5
New Jersey	1512	0.3
New Mexico	3408	0.7
Nevada	1751	0.4
New York	6717	1.4
Ohio	2755	0.6
Oklahoma	3158	0.6
Pennsylvania	17307	3.5
Rhode Island	1263	0.3
Tennessee	26180	5.3
Texas	265655	53.5
Virginia	6607	1.3
Other	7399	1.5
TOTAL	496,102	100.0

Considerable attention was given to ensure the sample was representative of students in Kindergarten through Grade 3 with respect to the demographic variables of age, gender, race/ethnicity, special education status, socioeconomic status, and classroom instruction type. However, not all participating districts provided demographic information for every student. Table 21 lists the known demographic information of students in the norming sample.

Table 21. *Demographics for* ISIP Early Reading *Norming Sample*.

	Grade				
	K-3	K	1	2	3
Gender	52.2	52.0	51.2	51.5	51.7
Male	47.8	48.0	48.8	48.5	48.3
Female					
Race					
African American	19.4	19.7	20.5	21.9	20.3
American Indian/Native	0.5	0.5	0.5	0.4	0.5
Asian	4.6	4.3	4.2	3.5	4.2
Hispanic	34.2	33.2	32.5	29.8	32.5
Other	2.2	2.4	2.4	2.7	2.4
Pacific Islander	0.1	0.1	0.1	0.2	0.1
White	38.9	39.8	39.8	41.5	40.0
Special Education					
Yes	7.9	10.0	11.1	13.5	10.5
No	92.1	90.0	88.9	86.5	89.5
Economically Disadvantaged					
Yes	45.2	50.2	48.6	50.1	48.5
No	46.7	44.1	45.1	42.0	44.6
Classroom Instruction Type					
Bilingual Education	27.5	32.5	32.3	26.3	29.8
English as a Second Language	5.4	3.8	3.0	3.3	3.9
General Education	67.1	63.7	64.7	70.4	66.3

Note: Each category is percent of total responding.

Norming tables for each of the ISIP subtests, as well as Overall Reading, can be found in Appendix A.

Instructional Tier Goals

Consistent with other reading assessments, istation has defined a three-tier normative grouping, based on scores associated with the 20th and 40th percentiles. Students with a score above the 40th percentile for their grade are placed into Tier 1. Students with a score below the 20th percentile are placed into Tier 3. These tiers are used to guide educators in determining the level of instruction for each student. That is, students classified as:

- Tier 1 are performing at grade level.
- Tier 2 are performing moderately below grade level and in need of intervention.
- Tier 3 are performing seriously below grade level and in need of intensive intervention.

Appendix A

Table A.1. Overall Reading Scores and Associated Percentile Rankings by Month
Kindergarten

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
147	1	1	1	1	1	1	1	1	1	1
148	3	2	2	1	1	1	1	1	1	1
149	3	2	2	2	1	1	1	1	1	1
150	3	2	2	2	1	1	1	1	1	1
151	4	3	2	2	2	1	1	1	1	1
152	4	3	3	2	2	1	1	1	1	1
153	4	3	3	2	2	2	1	1	1	1
154	5	4	3	2	2	2	1	1	1	1
155	6	4	4	2	2	2	1	1	1	1
156	6	5	4	3	2	2	2	2	1	1
157	7	5	4	3	3	2	2	2	1	1
158	8	6	5	3	3	2	2	2	1	1
159	9	6	6	4	3	3	2	2	2	1
160	10	7	6	4	4	3	2	2	2	1
161	11	8	7	5	4	3	3	2	2	2
162	13	9	8	5	4	4	3	3	2	2
163	14	10	8	6	5	4	3	3	2	2
164	16	11	10	6	5	4	4	3	3	2
165	17	12	11	7	6	5	4	3	3	2
166	19	13	12	8	7	5	4	4	3	3
167	21	15	13	9	7	6	5	4	3	3
168	22	16	15	10	8	7	5	4	4	3
169	25	18	16	11	9	8	6	5	4	3
170	27	20	18	12	10	8	6	5	5	4
171	30	23	20	14	11	9	7	6	5	4
172	32	26	22	15	12	10	8	7	6	5
173	35	29	25	17	14	12	9	7	6	5
174	38	32	27	19	15	13	10	8	7	5
175	41	35	30	21	17	14	11	9	8	6
176	44	37	32	23	19	16	12	10	9	7
177	48	40	35	25	21	17	14	11	10	7
178	51	44	38	27	23	19	15	12	11	8
179	54	47	41	30	25	21	17	13	12	9
180	57	50	44	32	27	23	18	15	13	10
181	61	53	47	35	30	25	20	16	14	11
182	63	57	50	38	32	27	22	18	16	12
183	66	60	53	40	34	29	24	19	17	13
184	69	63	56	43	37	32	26	21	19	14
185	71	66	59	46	39	34	28	23	20	15
186	73	69	62	49	42	37	30	25	22	17
187	75	71	65	52	45	39	33	27	24	18
188	78	74	67	55	48	42	35	29	26	20

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.1. Kindergarten

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
189	79	76	70	58	51	45	38	32	28	23
190	82	79	72	60	54	47	41	34	31	25
191	83	81	75	63	56	50	44	37	33	28
192	85	83	77	66	59	53	47	39	36	30
193	86	85	79	69	62	56	49	42	39	32
194	88	86	81	71	65	59	52	45	41	35
195	89	88	83	74	68	62	56	48	44	38
196	90	89	85	76	70	65	59	51	47	41
197	91	91	87	78	73	68	62	54	51	44
198	92	92	88	80	76	71	65	57	54	47
199	93	93	90	82	78	73	68	61	57	50
200	94	94	91	84	80	76	71	64	60	53
201	94	95	92	86	82	78	74	67	63	56
202	95	95	93	88	84	81	76	70	66	59
203	96	96	94	89	86	83	79	73	69	62
204	96	96	95	90	88	85	81	75	72	65
205	97	97	95	91	89	86	83	78	74	67
206	97	97	96	93	90	88	85	80	77	70
207	97	98	97	93	92	89	87	82	79	73
208	98	98	97	94	93	91	88	84	81	75
209	98	98	97	95	94	92	90	86	83	77
210	98	99	98	96	95	93	91	87	84	79
211	98	99	98	96	95	94	92	89	86	81
212	98	99	98	97	96	94	93	90	87	83
213	98	99	99	97	96	95	94	91	89	84
214	99	99	99	97	97	96	94	92	90	86
215	99	99	99	98	97	96	95	93	91	87
216	99	99	99	98	98	97	96	94	92	88
217	99	99	99	98	98	97	96	94	93	90
218	99	99	99	98	98	97	96	95	93	90
219	99	99	99	99	98	98	97	95	94	91
220	99	99	99	99	99	98	97	96	95	92
221	99	99	99	99	99	98	98	96	95	93
222	99	99	99	99	99	98	98	97	96	94
223	99	99	99	99	99	98	98	97	96	94
224	99	99	99	99	99	99	98	97	97	95
225	99	99	99	99	99	99	98	98	97	95
226	99	99	99	99	99	99	99	98	97	96
227	99	99	99	99	99	99	99	98	98	96
228	99	99	99	99	99	99	99	98	98	97
229	99	99	99	99	99	99	99	99	98	97
230	99	99	99	99	99	99	99	99	98	97
231	99	99	99	99	99	99	99	99	98	98
232	99	99	99	99	99	99	99	99	99	98
233	99	99	99	99	99	99	99	99	99	98
234	99	99	99	99	99	99	99	99	99	98
235	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.2. Overall Reading Scores and Associated Percentile Rankings by Month
First Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
166	1	1	1	1	1	1	1	1	1	1
167	2	1	1	1	1	1	1	1	1	1
168	2	1	1	1	1	1	1	1	1	1
169	2	1	1	1	1	1	1	1	1	1
170	2	1	2	1	1	1	1	1	1	1
171	3	2	2	1	1	1	1	1	1	1
172	3	2	2	1	1	1	1	1	1	1
173	3	2	2	2	2	1	1	1	1	1
174	3	2	3	2	2	2	1	1	1	1
175	4	3	3	2	2	2	2	1	1	1
176	5	3	3	2	2	2	2	2	2	1
177	5	4	4	3	2	2	2	2	2	2
178	6	4	4	3	3	2	2	2	2	2
179	7	5	5	3	3	3	3	2	2	2
180	8	6	5	4	4	3	3	2	2	2
181	9	6	6	4	4	3	3	3	3	2
182	10	7	7	5	4	4	3	3	3	3
183	11	8	8	6	5	4	4	3	3	3
184	13	9	9	6	6	5	4	4	4	3
185	14	11	10	7	6	6	5	4	4	4
186	16	12	11	8	7	6	6	5	5	4
187	18	14	13	9	8	7	6	5	5	4
188	21	16	14	10	9	8	7	6	6	5
189	24	18	16	12	10	9	8	7	6	5
190	28	20	18	13	12	10	9	7	7	6
191	32	23	21	15	13	11	10	8	8	7
192	36	26	23	17	15	13	11	9	9	7
193	39	29	26	19	17	14	12	10	10	8
194	42	32	29	21	18	16	14	12	11	9
195	44	35	32	23	21	18	15	13	12	10
196	47	38	35	26	23	19	17	14	13	11
197	52	41	38	28	25	21	18	16	14	12
198	54	45	41	31	28	23	19	17	16	13
199	58	48	45	34	30	25	20	19	17	14
200	61	51	48	37	33	28	23	20	18	15
201	64	54	52	40	36	30	26	22	19	16
202	68	57	55	43	38	32	28	24	20	17
203	70	61	58	46	41	35	30	26	23	18
204	72	64	61	49	44	37	32	27	25	19
205	75	67	64	52	47	39	35	29	26	20
206	77	70	67	55	49	42	37	31	28	23
207	79	72	70	58	52	44	39	33	30	24
208	81	75	73	61	55	46	42	35	32	26
209	83	77	75	63	58	49	44	37	34	27
210	84	79	77	66	60	52	47	39	36	29
211	86	81	79	68	63	54	49	42	38	31

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.2.   First Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
212	87	83	81	71	65	57	52	44	40	33
213	88	84	83	73	68	59	54	46	43	35
214	89	86	85	75	70	61	57	49	45	37
215	90	87	86	77	72	64	59	51	47	39
216	91	88	87	79	74	66	61	54	50	42
217	92	90	88	81	76	68	64	56	52	44
218	93	91	90	82	78	71	66	59	55	47
219	94	92	91	84	80	73	68	61	57	49
220	95	93	91	85	81	75	71	63	60	52
221	95	94	92	86	83	77	73	66	62	54
222	96	94	93	88	84	78	75	68	64	57
223	96	95	94	89	85	80	77	70	67	59
224	97	96	94	90	87	82	78	73	69	62
225	97	96	95	91	88	83	80	75	71	64
226	97	97	96	92	89	85	82	76	73	66
227	98	97	96	93	90	86	83	78	75	69
228	98	97	96	93	91	87	85	80	77	71
229	98	98	97	94	92	89	86	82	79	73
230	98	98	97	95	92	90	87	83	80	75
231	99	98	98	95	93	91	88	85	82	77
232	99	99	98	96	94	92	89	86	84	79
233	99	99	98	96	95	92	90	87	85	81
234	99	99	98	97	95	93	91	89	86	82
235	99	99	99	97	96	94	92	90	88	84
236	99	99	99	97	96	95	93	91	89	85
237	99	99	99	98	97	95	94	92	90	87
238	99	99	99	98	97	96	94	93	91	88
239	99	99	99	98	97	96	95	93	92	89
240	99	99	99	99	98	97	96	94	93	90
241	99	99	99	99	98	97	96	95	93	91
242	99	99	99	99	98	97	97	95	94	92
243	99	99	99	99	98	98	97	96	95	93
244	99	99	99	99	99	98	97	96	95	94
245	99	99	99	99	99	98	98	97	96	94
246	99	99	99	99	99	98	98	97	96	95
247	99	99	99	99	99	99	98	97	97	96
248	99	99	99	99	99	99	98	98	97	96
249	99	99	99	99	99	99	99	98	97	97
250	99	99	99	99	99	99	99	98	98	97
251	99	99	99	99	99	99	99	99	98	97
252	99	99	99	99	99	99	99	99	98	98
253	99	99	99	99	99	99	99	99	98	98
254	99	99	99	99	99	99	99	99	99	98
255	99	99	99	99	99	99	99	99	99	98
256	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.3. Overall Reading Scores and Associated Percentile Rankings by Month
Second Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
183	1	2	1	1	1	1	1	1	1	1
184	2	2	2	1	1	1	1	1	1	1
185	2	2	2	2	2	1	1	1	1	1
186	2	3	2	2	2	2	2	2	2	1
187	3	3	2	2	2	2	2	2	2	1
188	3	3	3	2	2	2	2	2	2	2
189	3	4	3	3	3	2	2	2	2	2
190	4	4	4	3	3	2	2	2	2	2
191	4	5	4	3	3	3	3	2	3	2
192	6	5	4	4	3	3	3	3	3	2
193	6	6	5	4	4	3	3	3	3	3
194	7	6	6	5	4	4	4	3	3	3
195	9	7	6	5	5	4	4	4	4	3
196	10	8	7	6	5	5	4	4	4	3
197	11	8	8	6	6	5	5	4	4	4
198	12	9	8	7	6	5	5	5	5	4
199	13	10	9	7	7	6	6	5	5	4
200	15	11	10	8	7	6	6	5	5	4
201	16	12	11	9	8	7	6	6	6	5
202	17	13	12	9	8	7	7	6	6	5
203	19	14	13	10	9	8	7	7	7	5
204	21	15	14	11	10	8	8	7	7	6
205	23	16	15	12	11	9	9	8	8	6
206	25	18	17	13	12	10	9	8	8	7
207	26	19	18	13	12	10	10	9	9	7
208	28	21	19	14	13	11	10	10	9	8
209	30	23	21	16	14	12	11	10	10	8
210	32	25	22	17	16	13	12	11	11	9
211	34	27	24	18	17	14	13	12	11	9
212	37	29	26	19	18	15	14	13	12	10
213	39	31	28	21	19	16	15	14	13	11
214	41	33	30	22	21	17	16	15	14	12
215	43	36	32	24	22	18	18	16	15	12
216	45	39	34	26	24	19	19	17	16	13
217	47	41	36	28	26	21	20	18	17	14
218	50	43	38	30	28	23	22	19	18	15
219	52	45	40	32	30	25	24	21	19	17
220	55	47	43	34	32	27	25	23	21	18
221	58	49	45	36	34	29	27	25	23	19
222	60	51	47	39	37	31	29	26	25	21
223	62	53	50	41	39	34	32	28	27	23
224	64	55	52	44	41	36	34	30	29	25
225	66	58	55	46	44	38	36	33	31	26
226	68	61	57	49	47	41	39	35	34	28
227	71	63	60	52	49	43	41	37	36	31

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.3. Second Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
228	73	66	62	54	52	46	44	39	38	33
229	75	68	65	57	55	48	46	42	41	35
230	77	70	67	60	57	51	49	45	43	37
231	79	72	69	62	60	54	51	47	46	39
232	81	74	71	64	62	56	54	50	48	42
233	83	77	74	67	65	59	57	52	51	45
234	85	79	76	69	67	62	60	55	53	47
235	86	81	78	72	69	64	62	58	56	50
236	88	83	80	74	72	67	65	60	58	53
237	89	85	82	76	74	69	67	63	61	55
238	90	86	83	78	76	71	69	66	63	58
239	91	88	85	80	78	74	72	68	66	60
240	93	89	86	82	80	76	74	70	68	63
241	94	90	88	84	82	78	76	72	70	65
242	94	91	89	85	83	79	78	75	72	67
243	95	92	90	87	84	81	79	77	75	70
244	95	93	91	88	86	83	81	78	76	72
245	96	94	92	89	87	84	83	80	78	74
246	97	95	93	90	89	86	84	82	80	76
247	97	96	94	91	90	87	86	83	81	77
248	97	96	94	92	91	88	87	85	83	79
249	97	96	95	93	92	89	88	86	84	81
250	98	97	96	94	93	90	89	87	86	82
251	98	97	96	95	93	91	90	89	87	84
252	98	98	97	95	94	92	91	90	88	85
253	98	98	97	96	95	93	92	91	89	86
254	99	98	98	96	95	94	93	92	90	88
255	99	99	98	97	96	95	94	93	91	89
256	99	99	98	97	96	95	94	93	92	90
257	99	99	98	97	97	96	95	94	93	91
258	99	99	99	98	97	96	96	95	94	91
259	99	99	99	98	98	97	96	95	94	92
260	99	99	99	98	98	97	97	96	95	93
261	99	99	99	99	98	97	97	96	95	94
262	99	99	99	99	98	98	97	97	96	94
263	99	99	99	99	99	98	98	97	96	95
264	99	99	99	99	99	98	98	97	97	95
265	99	99	99	99	99	98	98	97	97	96
266	99	99	99	99	99	99	98	98	97	96
267	99	99	99	99	99	99	99	98	98	97
268	99	99	99	99	99	99	99	98	98	97
269	99	99	99	99	99	99	99	98	98	97
270	99	99	99	99	99	99	99	99	98	98
271	99	99	99	99	99	99	99	99	99	98
272	99	99	99	99	99	99	99	99	99	98
273	99	99	99	99	99	99	99	99	99	98
274	99	99	99	99	99	99	99	99	99	98
275	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.4. Overall Reading Scores and Associated Percentile Rankings by Month
Third Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
185	1	1	1	1	1	1	1	1	1	1
186	2	2	1	1	1	1	1	1	1	1
187	2	2	2	1	1	1	1	1	1	1
188	2	2	2	1	2	1	1	1	1	1
189	2	2	2	2	2	1	1	1	2	2
190	2	2	2	2	2	2	1	2	2	2
191	3	3	2	2	2	2	2	2	2	2
192	3	3	3	2	2	2	2	2	2	2
193	4	3	3	2	2	2	2	2	2	2
194	4	3	3	3	3	2	2	2	2	2
195	5	4	3	3	3	2	2	2	2	2
196	5	4	4	3	3	3	2	2	3	3
197	5	4	4	3	3	3	3	3	3	3
198	6	5	4	3	4	3	3	3	3	3
199	6	5	5	4	4	3	3	3	3	3
200	7	5	5	4	4	3	3	3	3	3
201	8	5	5	4	4	4	3	3	4	4
202	8	6	6	5	5	4	4	4	4	4
203	9	6	6	5	5	4	4	4	4	4
204	9	7	6	5	5	4	4	4	4	4
205	9	7	7	6	6	5	4	4	5	4
206	10	8	7	6	6	5	5	5	5	5
207	10	8	8	6	6	5	5	5	5	5
208	11	9	8	7	7	6	5	5	5	5
209	11	9	9	7	7	6	6	5	6	6
210	12	10	10	7	8	6	6	6	6	6
211	13	11	11	8	8	7	6	6	6	6
212	14	12	11	8	9	7	7	6	7	7
213	15	13	12	9	9	8	7	7	7	7
214	16	14	13	10	10	8	8	7	8	7
215	17	15	14	10	11	9	8	8	8	8
216	18	16	15	11	11	9	9	8	9	8
217	20	17	16	12	12	10	9	9	9	9
218	21	19	17	13	13	11	10	9	10	10
219	22	20	18	14	14	12	11	10	11	10
220	24	21	19	15	15	13	12	11	11	11
221	26	23	21	16	16	13	12	12	12	12
222	28	24	22	17	17	14	13	13	13	13
223	30	26	24	18	18	16	14	14	14	14
224	32	28	25	19	19	17	16	15	15	15
225	35	30	27	21	21	18	17	16	16	16
226	38	32	29	23	22	19	18	17	17	17
227	40	34	32	25	25	20	20	18	19	18
228	43	36	34	27	27	22	21	20	20	19
229	45	38	36	29	29	25	23	21	22	21

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.4. Third Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
230	48	41	39	31	32	27	24	23	23	22
231	50	43	41	34	34	29	26	24	25	24
232	53	46	44	36	36	31	29	26	27	25
233	55	49	46	38	39	34	32	28	29	27
234	58	52	49	41	41	36	35	30	31	29
235	62	55	52	44	44	38	37	33	33	31
236	64	58	55	46	46	41	40	35	35	33
237	66	60	58	49	49	44	42	37	37	36
238	69	63	60	52	52	46	44	40	40	38
239	71	65	63	54	54	49	46	42	42	40
240	73	68	65	57	57	51	48	44	45	43
241	75	70	67	60	59	54	50	47	47	45
242	77	72	70	62	62	56	53	49	50	47
243	79	75	72	64	64	59	55	52	52	50
244	80	77	74	67	66	61	58	54	55	52
245	82	79	76	69	69	63	60	57	57	55
246	85	80	78	71	71	66	63	59	59	57
247	86	82	80	73	73	68	65	62	62	59
248	88	83	81	75	75	70	67	64	64	62
249	89	85	83	77	77	72	69	66	66	64
250	90	86	84	79	78	74	71	68	68	66
251	91	88	86	81	80	76	74	70	70	68
252	92	89	87	82	82	77	75	72	72	70
253	93	90	88	84	83	79	77	74	74	72
254	94	90	89	85	85	81	79	76	76	74
255	95	91	90	86	86	82	80	78	77	75
256	95	92	91	88	87	84	82	79	79	77
257	96	93	92	89	88	85	83	81	81	78
258	97	93	93	90	89	86	85	82	82	80
259	97	94	94	91	90	87	86	83	83	81
260	97	95	95	92	91	88	87	84	85	82
261	97	95	95	92	92	89	88	86	86	84
262	98	95	96	93	93	90	89	87	87	85
263	98	96	96	94	93	91	90	88	88	86
264	98	96	97	94	94	92	91	89	89	87
265	98	97	97	95	94	92	92	90	90	88
266	98	97	97	95	95	93	92	90	91	89
267	98	97	98	96	95	93	93	91	91	90
268	99	98	98	96	96	94	94	92	92	90
269	99	98	98	97	96	95	94	92	93	91
270	99	98	98	97	97	95	95	93	93	92
271	99	98	99	97	97	96	95	94	94	92
272	99	99	99	98	97	96	96	94	94	93
273	99	99	99	98	98	96	96	95	95	94
274	99	99	99	98	98	97	97	95	95	94
275	99	99	99	98	98	97	97	96	96	95
276	99	99	99	98	98	97	97	96	96	95

Table A.4. Third Grade

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
277	99	99	99	99	99	98	97	96	96	96
278	99	99	99	99	99	98	98	97	97	96
279	99	99	99	99	99	98	98	97	97	96
280	99	99	99	99	99	98	98	97	97	97
281	99	99	99	99	99	98	98	98	98	97
282	99	99	99	99	99	99	99	98	98	97
283	99	99	99	99	99	99	99	98	98	98
284	99	99	99	99	99	99	99	98	98	98
285	99	99	99	99	99	99	99	98	98	98
286	99	99	99	99	99	99	99	99	99	98
287	99	99	99	99	99	99	99	99	99	98
288	99	99	99	99	99	99	99	99	99	98
289	99	99	99	99	99	99	99	99	99	99

Table A.5. ISIP Early Reading Norming Table for Kindergarten
Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
146	1	1	1	1	1	1	1	1	1	1
147	2	1	1	1	1	1	1	1	1	1
148	2	1	1	1	1	1	1	1	1	1
149	2	1	1	1	1	1	1	1	1	1
150	3	1	1	1	1	1	1	1	1	1
151	4	2	1	1	1	1	1	1	1	1
152	4	2	1	1	1	1	1	1	1	1
153	5	2	1	1	1	1	1	1	1	1
154	5	3	1	1	1	1	1	1	1	1
155	5	3	1	1	1	1	1	1	1	1
156	5	4	1	1	1	1	1	1	1	1
157	5	4	1	1	1	1	1	1	1	1
158	6	5	2	1	1	1	1	1	1	1
159	7	5	2	1	1	1	1	1	1	1
160	7	6	4	1	1	1	1	1	1	1
161	8	7	4	1	1	1	1	1	1	1
162	8	7	4	1	1	1	1	1	1	1
163	9	8	4	1	1	1	1	1	1	1
164	10	8	4	1	1	1	1	1	1	1
165	10	8	5	1	1	1	1	1	1	1
166	12	9	5	2	1	1	1	1	1	1
167	12	9	5	2	1	1	1	1	1	1
168	14	10	6	2	1	1	1	1	1	1
169	14	11	6	2	1	1	1	1	1	1
170	15	13	7	2	1	1	1	1	1	1
171	17	15	8	2	1	1	1	1	1	1
172	18	15	8	2	1	1	1	1	1	1
173	20	17	9	3	1	1	1	1	1	1
174	22	18	10	3	2	1	1	1	1	1
175	24	19	10	3	2	1	1	1	1	1
176	26	20	11	4	2	2	2	1	1	1
177	29	22	12	4	2	2	2	2	2	2
178	32	24	13	5	3	2	2	2	2	2
179	34	26	14	5	3	2	2	2	2	2
180	36	29	16	6	3	3	2	2	2	2
181	38	32	18	7	4	3	2	2	2	2
182	40	34	19	9	4	3	3	3	2	2
183	41	36	22	10	5	4	3	3	3	3
184	42	38	24	12	6	4	4	4	3	3
185	44	40	26	13	7	5	5	5	4	4
186	46	43	28	15	8	6	6	5	4	4
187	48	47	31	18	10	7	7	6	5	5
188	50	53	35	19	11	9	8	8	6	6
189	53	62	37	21	13	10	9	8	7	7
190	55	65	39	23	16	11	10	9	8	8
191	57	68	42	26	18	13	12	12	9	10

Table A.5. Kindergarten Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
192	60	70	44	29	20	16	15	13	11	11
193	61	71	46	33	22	18	17	15	13	12
194	64	72	49	37	24	20	18	16	14	13
195	65	74	51	40	27	22	20	18	15	15
196	67	76	53	41	31	25	22	20	18	17
197	69	78	56	44	36	28	24	23	20	19
198	72	81	59	47	40	30	27	26	22	21
199	73	83	62	51	42	34	31	29	25	24
200	73	85	65	55	45	38	35	33	28	27
201	75	86	67	58	49	42	38	36	31	30
202	77	88	69	61	52	45	41	41	34	33
203	79	89	71	65	55	49	46	43	39	37
204	79	90	74	67	59	52	49	47	41	40
205	80	90	76	69	62	56	52	50	45	42
206	80	91	77	71	66	59	56	54	48	47
207	81	92	79	73	69	63	60	58	52	51
208	82	93	81	76	71	66	64	61	56	54
209	83	93	81	78	73	69	67	64	59	57
210	84	94	82	79	76	71	69	66	61	59
211	85	94	83	81	78	73	71	69	64	62
212	87	95	85	82	80	75	74	72	67	65
213	88	95	86	84	82	78	76	75	70	69
214	89	96	87	85	83	80	79	77	73	70
215	90	96	88	86	85	81	80	79	75	73
216	91	97	88	87	87	83	82	81	77	75
217	92	97	90	88	88	85	84	83	79	77
218	93	97	90	90	89	86	86	84	81	79
219	93	97	91	91	90	87	87	85	83	81
220	94	98	92	92	91	88	88	87	84	82
221	94	98	92	93	92	89	89	88	85	84
222	95	99	93	94	93	90	90	90	87	86
223	96	99	94	95	94	91	91	91	89	87
224	96	99	94	96	94	92	92	92	90	89
225	96	99	95	96	95	93	93	93	91	90
226	97	99	95	97	96	94	94	94	92	91
227	97	99	95	97	96	95	94	94	93	92
228	98	99	96	97	96	95	95	95	93	92
229	98	99	96	97	97	96	95	95	94	93
230	98	99	96	98	97	96	96	96	95	94
231	98	99	97	98	97	97	96	96	95	95
232	98	99	97	98	98	97	97	97	96	95
233	99	99	97	99	98	97	97	97	96	95
234	99	99	98	99	98	98	97	97	96	96
235	99	99	98	99	98	98	97	98	97	96
236	99	99	98	99	98	98	98	98	97	97
237	99	99	98	99	99	98	98	98	97	97
238	99	99	99	99	99	98	98	98	98	97

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.5. Kindergarten Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
239	99	99	99	99	99	99	98	98	98	98
240	99	99	99	99	99	99	99	99	98	98
241	99	99	99	99	99	99	99	99	98	98
242	99	99	99	99	99	99	99	99	99	98
243	99	99	99	99	99	99	99	99	99	98
244	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.6. ISIP Early Reading Norming Table for Grade 1
Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
160	1	1	1	1	1	1	1	1	1	1
161	2	1	1	1	1	1	1	1	1	1
162	2	1	1	1	1	1	1	1	1	1
163	2	1	1	1	1	1	1	1	1	1
164	2	1	1	1	1	1	1	1	1	1
165	2	1	2	1	1	1	1	1	1	1
166	2	2	2	1	1	1	1	1	1	1
167	3	2	2	1	1	1	1	1	1	1
168	3	2	2	1	2	1	1	1	1	1
169	3	2	2	2	2	1	1	1	1	1
170	3	2	2	2	2	2	2	1	1	1
171	4	2	3	2	2	2	2	2	2	1
172	4	3	3	2	2	2	2	2	2	1
173	5	3	3	2	2	2	2	2	2	2
174	6	3	3	2	3	2	2	2	2	2
175	6	4	4	3	3	2	2	2	2	2
176	7	4	4	3	3	3	2	2	2	2
177	8	4	5	3	3	3	3	2	2	2
178	8	5	5	3	3	3	3	3	3	2
179	9	5	5	4	4	3	3	3	3	2
180	10	6	6	4	4	4	3	3	3	3
181	11	7	6	4	4	4	3	3	3	3
182	13	8	7	5	5	4	4	4	3	3
183	14	9	8	6	5	5	4	4	4	3
184	16	10	9	7	6	5	5	4	4	4
185	19	12	10	7	7	6	5	5	5	4
186	20	13	12	8	8	7	6	6	5	5
187	23	15	14	9	9	8	7	6	6	5
188	26	17	15	11	10	9	8	7	7	6
189	28	18	16	11	11	9	8	7	7	6
190	30	20	18	13	11	10	9	8	8	7
191	33	23	20	14	13	11	10	9	9	7
192	34	24	23	16	15	13	11	10	9	8
193	36	26	24	17	16	13	12	10	10	9
194	38	27	26	18	17	14	13	11	11	9
195	41	30	28	20	18	16	14	12	11	10
196	44	32	30	22	19	17	15	13	12	11
197	46	34	32	23	20	18	16	14	13	11
198	50	38	35	26	23	20	18	15	15	12
199	53	41	38	28	26	22	19	17	16	13
200	57	45	41	31	28	24	20	18	17	14
201	59	47	44	33	30	26	23	19	18	15
202	62	51	47	36	33	28	25	21	20	17
203	65	53	50	39	35	30	27	23	22	18
204	67	56	52	41	37	32	29	25	23	19
205	69	58	55	44	39	34	31	27	25	21

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.6. Grade 1 Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
206	72	61	59	48	42	37	34	29	27	22
207	74	64	62	51	46	40	36	32	29	24
208	75	66	64	53	49	42	39	33	31	26
209	77	68	66	55	51	44	40	35	32	27
210	78	70	68	58	53	46	42	37	34	29
211	79	72	71	60	56	49	45	39	36	31
212	81	74	73	63	59	52	48	42	38	33
213	82	76	76	66	62	54	50	44	41	35
214	83	78	77	68	64	56	52	46	43	36
215	85	79	79	70	66	58	54	48	45	38
216	86	81	81	72	69	61	57	51	47	41
217	87	82	82	75	71	63	60	53	50	43
218	88	84	84	76	73	65	62	55	52	45
219	89	85	85	78	75	67	63	57	54	47
220	90	86	86	79	76	69	66	59	56	49
221	91	87	88	81	78	71	68	61	58	52
222	92	89	89	83	81	74	71	64	61	54
223	92	90	90	85	83	76	73	67	64	57
224	93	91	91	86	84	78	75	69	66	60
225	94	92	92	88	85	80	77	71	68	62
226	94	93	93	89	87	81	78	73	70	64
227	95	94	94	90	88	83	80	75	72	66
228	96	95	94	91	89	84	81	76	74	68
229	96	96	95	92	90	86	83	78	75	70
230	97	96	95	93	91	87	84	80	77	72
231	97	97	96	93	91	88	85	82	79	74
232	97	97	96	94	92	89	86	83	80	76
233	98	98	97	95	93	90	87	84	82	77
234	98	98	97	95	93	91	88	85	83	79
235	98	98	97	96	94	92	89	87	84	81
236	99	98	98	96	95	92	90	88	86	82
237	99	99	98	97	95	93	91	89	87	84
238	99	99	98	97	96	94	92	90	88	85
239	99	99	98	97	96	95	93	91	89	86
240	99	99	99	98	97	95	94	92	90	88
241	99	99	99	98	97	96	94	92	91	88
242	99	99	99	98	97	96	95	93	92	89
243	99	99	99	98	98	96	95	94	92	90
244	99	99	99	98	98	97	96	94	93	91
245	99	99	99	99	98	97	96	95	93	92
246	99	99	99	99	98	97	96	95	94	92
247	99	99	99	99	98	97	97	95	94	93
248	99	99	99	99	99	98	97	96	95	93
249	99	99	99	99	99	98	97	96	95	94
250	99	99	99	99	99	98	97	96	95	94
251	99	99	99	99	99	98	98	97	96	94
252	99	99	99	99	99	98	98	97	96	95
253	99	99	99	99	99	98	98	97	96	95

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.6. Grade 1 Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
254	99	99	99	99	99	99	98	97	97	95
255	99	99	99	99	99	99	98	97	97	96
256	99	99	99	99	99	99	98	98	97	96
257	99	99	99	99	99	99	98	98	97	96
258	99	99	99	99	99	99	99	98	97	96
259	99	99	99	99	99	99	99	98	98	97
260	99	99	99	99	99	99	99	98	98	97
261	99	99	99	99	99	99	99	98	98	97
262	99	99	99	99	99	99	99	98	98	97
263	99	99	99	99	99	99	99	98	98	97
264	99	99	99	99	99	99	99	99	98	97
265	99	99	99	99	99	99	99	99	98	98
266	99	99	99	99	99	99	99	99	98	98
267	99	99	99	99	99	99	99	99	99	98
268	99	99	99	99	99	99	99	99	99	98
269	99	99	99	99	99	99	99	99	99	98
270	99	99	99	99	99	99	99	99	99	98
271	99	99	99	99	99	99	99	99	99	98
272	99	99	99	99	99	99	99	99	99	99

Table A.7. ISIP Early Reading Norming Table for Grade 2
Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
165	1	1	1	1	1	1	1	1	1	1
166	2	2	1	1	1	1	1	1	1	1
167	2	2	2	1	1	1	1	1	1	1
168	2	2	2	1	1	1	1	1	1	1
169	2	2	2	2	1	1	1	1	1	1
170	3	2	2	2	1	1	1	1	1	1
171	3	3	2	2	1	1	1	1	1	1
172	3	3	2	2	1	1	1	1	1	1
173	3	3	3	2	2	1	1	1	1	1
174	3	3	3	2	2	1	1	1	1	1
175	4	4	3	3	2	2	1	1	1	1
176	4	4	3	3	3	2	1	1	1	1
177	4	5	4	3	3	3	2	1	1	1
178	5	5	4	3	3	3	2	1	1	1
179	5	6	4	4	3	3	3	2	1	1
180	6	7	5	4	4	3	3	3	1	1
181	6	8	5	5	4	4	3	3	1	1
182	8	8	5	5	4	4	3	3	1	1
183	9	9	6	5	5	4	4	3	3	1
184	12	10	6	6	5	4	4	3	3	2
185	14	10	6	6	5	5	4	4	3	3
186	15	11	7	7	6	5	5	4	3	3
187	16	12	8	7	6	5	5	4	4	3
188	16	13	8	8	7	6	5	5	4	4
189	17	14	9	8	7	6	6	5	4	4
190	18	15	10	9	8	7	6	6	5	4
191	19	17	12	10	9	7	6	6	5	5
192	20	18	14	12	9	8	7	7	5	5
193	23	19	15	13	10	8	7	7	6	5
194	23	21	17	15	10	9	8	8	6	6
195	24	22	18	16	12	10	8	8	7	6
196	26	24	20	18	13	11	9	9	7	7
197	29	26	21	19	15	11	10	10	8	7
198	30	28	23	20	17	13	11	10	9	8
199	33	30	24	23	18	15	12	11	10	8
200	39	33	26	25	20	17	14	12	10	9
201	39	34	28	27	21	19	15	13	11	10
202	44	35	30	28	22	20	17	14	12	11
203	47	38	32	30	25	21	18	16	12	11
204	50	40	35	32	26	23	20	17	14	12
205	52	42	37	34	28	25	21	19	15	13
206	55	44	40	36	29	27	23	21	16	13
207	57	45	43	38	31	29	24	22	18	15
208	58	47	45	40	34	30	26	24	20	16
209	60	50	48	43	36	32	28	26	21	18

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.7. Grade 2 Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
210	62	52	50	45	40	34	30	28	23	20
211	64	54	52	47	42	36	32	30	24	21
212	65	57	55	50	44	40	35	33	26	23
213	66	60	57	52	46	42	37	34	28	24
214	67	63	59	56	48	44	40	35	30	26
215	68	65	62	58	50	46	42	38	32	28
216	70	67	64	60	52	47	43	40	35	30
217	73	70	66	63	54	49	45	42	37	32
218	75	72	68	65	57	51	46	44	40	35
219	78	74	70	67	59	53	47	45	41	37
220	79	77	72	69	61	56	49	46	42	40
221	80	78	74	71	63	58	51	47	44	41
222	81	79	75	73	65	60	54	49	46	43
223	82	81	77	75	67	62	56	51	48	44
224	84	84	78	77	69	63	58	53	49	45
225	84	85	80	79	71	66	59	55	50	46
226	86	86	82	80	72	67	61	57	51	47
227	88	87	84	82	74	70	63	59	53	48
228	90	88	86	83	76	71	65	60	56	49
229	90	90	88	85	78	73	67	62	57	50
230	91	91	89	87	80	74	68	64	59	52
231	92	92	90	88	81	76	70	66	60	54
232	92	93	91	89	83	77	72	68	62	56
233	93	94	92	91	84	79	74	69	64	57
234	94	95	93	92	86	80	75	71	65	59
235	95	95	93	93	87	82	76	73	67	61
236	95	96	94	93	88	84	78	75	69	62
237	96	96	95	94	89	85	79	77	70	64
238	96	97	95	95	90	87	81	78	72	66
239	97	97	96	96	91	88	83	80	74	67
240	97	97	96	96	92	89	84	81	75	69
241	97	98	96	97	93	90	85	82	76	70
242	97	98	97	97	94	91	87	84	78	72
243	98	98	97	97	94	92	88	85	79	73
244	98	98	97	98	95	92	89	86	81	75
245	99	98	98	98	96	93	90	87	83	77
246	99	98	98	98	96	94	90	89	84	78
247	99	99	98	99	97	95	91	89	86	80
248	99	99	98	99	97	95	92	90	87	81
249	99	99	99	99	97	96	93	91	88	82
250	99	99	99	99	98	96	93	92	88	84
251	99	99	99	99	98	97	94	93	89	85
252	99	99	99	99	98	97	94	93	90	86
253	99	99	99	99	99	97	95	94	91	87
254	99	99	99	99	99	98	96	94	92	88
255	99	99	99	99	99	98	96	95	93	89
256	99	99	99	99	99	98	96	95	93	90

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.7. Grade 2 Alphabetic Decoding Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
257	99	99	99	99	99	99	97	96	94	91
258	99	99	99	99	99	99	97	96	94	92
259	99	99	99	99	99	99	97	97	95	92
260	99	99	99	99	99	99	97	97	96	93
261	99	99	99	99	99	99	98	98	96	94
262	99	99	99	99	99	99	98	98	97	94
263	99	99	99	99	99	99	98	98	97	95
264	99	99	99	99	99	99	98	98	97	95
265	99	99	99	99	99	99	98	98	98	96
266	99	99	99	99	99	99	98	99	98	96
267	99	99	99	99	99	99	99	99	98	96
268	99	99	99	99	99	99	99	99	98	97
269	99	99	99	99	99	99	99	99	99	97
270	99	99	99	99	99	99	99	99	99	97
271	99	99	99	99	99	99	99	99	99	97
272	99	99	99	99	99	99	99	99	99	98
273	99	99	99	99	99	99	99	99	99	98
274	99	99	99	99	99	99	99	99	99	98
275	99	99	99	99	99	99	99	99	99	98
276	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.8. ISIP Early Reading Norming Table for Grade 1
Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
158	1	1	1	1	1	1	1	1	1	1
159	2	1	1	1	1	1	1	1	1	1
160	2	1	1	1	1	1	1	1	1	1
161	2	1	1	1	1	1	1	1	1	1
162	3	2	1	1	1	1	1	1	1	1
163	3	2	1	1	1	1	1	1	1	1
164	3	2	1	1	1	1	1	1	1	1
165	3	2	2	1	1	1	1	1	1	1
166	3	2	2	2	1	1	1	1	1	1
167	4	3	2	2	1	1	1	1	1	1
168	4	3	2	2	2	2	1	1	1	1
169	5	4	2	3	2	2	1	1	1	1
170	6	4	3	3	2	2	2	1	1	1
171	6	5	4	3	3	2	2	2	1	1
172	7	6	4	4	3	3	2	2	2	1
173	8	6	5	4	3	3	2	2	2	2
174	9	7	5	5	4	3	3	2	2	2
175	10	8	6	5	4	4	3	2	2	2
176	11	9	7	6	5	4	3	3	2	2
177	12	9	8	6	5	4	3	3	3	2
178	14	10	8	7	6	5	4	3	3	2
179	16	12	9	8	6	6	4	4	3	3
180	19	14	10	9	7	7	5	4	4	3
181	23	17	12	11	9	8	6	5	4	4
182	25	18	14	13	10	9	7	6	5	4
183	27	19	17	14	12	10	8	6	6	4
184	28	20	19	15	13	11	9	7	6	5
185	31	23	21	17	14	12	10	8	7	5
186	34	26	23	19	16	13	11	8	7	6
187	37	28	26	20	17	14	12	9	8	6
188	40	30	28	22	18	15	12	10	8	7
189	42	32	30	23	20	16	14	11	9	7
190	45	35	32	25	21	18	15	12	10	8
191	47	38	34	27	23	19	16	13	11	8
192	49	40	37	30	26	21	17	14	12	9
193	51	42	40	32	27	22	18	15	13	10
194	53	45	42	33	29	24	19	16	13	10
195	55	47	44	35	30	25	20	17	14	11
196	57	49	46	37	32	26	22	18	15	12
197	59	52	48	40	35	29	25	20	17	13
198	61	53	51	42	37	31	26	21	18	14
199	63	56	53	45	39	33	28	23	19	15
200	65	58	55	47	41	35	30	25	21	16
201	67	60	57	49	43	36	31	26	21	17
202	68	62	58	51	45	39	33	28	23	18
203	70	64	60	54	48	42	35	30	25	19

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.8. Grade 1 Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
204	72	66	63	57	52	45	39	33	28	21
205	73	69	67	60	54	47	41	35	30	23
206	74	70	68	61	56	49	43	37	32	25
207	75	71	70	63	59	52	46	39	34	28
208	78	73	72	66	61	54	49	42	37	30
209	79	74	74	68	64	56	52	44	39	32
210	80	76	75	69	65	58	53	46	41	34
211	81	77	76	71	68	60	56	48	44	36
212	82	78	78	73	70	62	58	51	46	38
213	82	79	80	73	71	63	60	52	48	39
214	83	80	81	75	72	65	61	54	49	41
215	84	81	81	76	73	66	62	55	51	42
216	85	81	82	77	74	67	64	56	53	44
217	85	82	83	78	76	69	66	58	55	46
218	86	83	84	79	77	70	67	60	56	48
219	87	84	85	80	78	72	68	62	58	50
220	88	86	86	81	79	73	70	64	60	52
221	89	87	86	83	80	75	72	66	62	54
222	90	87	87	83	81	76	73	67	63	56
223	90	88	88	84	82	77	74	69	65	58
224	91	89	88	85	83	78	75	70	67	59
225	91	89	89	85	83	79	76	71	68	60
226	92	90	89	86	84	80	77	72	69	62
227	92	90	90	87	85	81	78	73	70	63
228	93	91	90	87	86	82	79	75	72	65
229	93	92	91	88	87	83	80	76	73	67
230	94	92	92	89	87	84	82	78	75	68
231	94	93	92	90	88	85	82	79	76	70
232	95	93	93	90	89	86	83	80	77	71
233	95	94	93	91	89	87	84	81	78	73
234	95	95	93	92	90	88	85	83	80	75
235	96	95	94	92	91	89	87	84	82	77
236	96	95	95	93	92	90	88	86	83	78
237	96	96	95	93	92	90	89	86	84	80
238	97	96	95	94	93	91	90	88	85	82
239	97	97	96	95	94	92	91	89	87	83
240	97	97	96	95	94	93	91	90	88	84
241	98	98	97	96	95	94	92	91	89	86
242	98	98	97	96	95	94	93	92	90	87
243	98	98	97	97	96	95	93	92	91	88
244	98	98	98	97	96	95	94	93	91	89
245	99	99	98	97	97	96	95	94	92	90
246	99	99	98	98	97	96	95	94	93	91
247	99	99	98	98	97	96	96	95	94	92
248	99	99	98	98	97	97	96	95	94	92
249	99	99	99	98	98	97	96	96	95	93
250	99	99	99	98	98	97	97	96	95	94

972.643.3440 • fax: 972.643.3441 • www.istation.com

107

Table A.8. Grade 1 Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
251	99	99	99	99	98	98	97	97	96	95
252	99	99	99	99	98	98	97	97	96	95
253	99	99	99	99	99	98	98	97	97	95
254	99	99	99	99	99	98	98	97	97	96
255	99	99	99	99	99	98	98	98	97	96
256	99	99	99	99	99	99	98	98	97	97
257	99	99	99	99	99	99	98	98	98	97
258	99	99	99	99	99	99	99	98	98	97
259	99	99	99	99	99	99	99	98	98	97
260	99	99	99	99	99	99	99	98	98	97
261	99	99	99	99	99	99	99	99	98	98
262	99	99	99	99	99	99	99	99	98	98
263	99	99	99	99	99	99	99	99	99	98
264	99	99	99	99	99	99	99	99	99	98
265	99	99	99	99	99	99	99	99	99	98
266	99	99	99	99	99	99	99	99	99	98
267	99	99	99	99	99	99	99	99	99	98
268	99	99	99	99	99	99	99	99	99	98
269	99	99	99	99	99	99	99	99	99	98
270	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.9. ISIP Early Reading Norming Table for Grade 2
Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
176	1	1	1	1	1	1	1	1	1	1
177	2	1	1	1	1	1	1	1	1	1
178	2	1	1	1	1	1	1	1	1	1
179	2	1	1	1	1	1	1	1	1	1
180	2	1	1	1	1	1	1	1	1	1
181	3	2	1	1	1	1	1	1	1	1
182	3	2	1	2	1	1	1	1	1	1
183	3	2	2	2	2	2	2	1	1	1
184	3	2	2	2	2	2	2	1	1	1
185	4	2	2	2	2	2	2	2	2	1
186	4	3	3	2	2	2	2	2	2	1
187	5	3	3	3	2	2	2	2	2	2
188	5	3	3	3	3	2	2	2	2	2
189	6	4	3	3	3	3	2	2	2	2
190	7	4	4	3	3	3	3	3	2	2
191	8	5	4	4	3	3	3	3	3	2
192	9	5	4	4	4	3	3	3	3	2
193	10	6	5	5	4	4	3	3	3	2
194	11	6	6	5	4	4	4	3	3	3
195	12	7	6	5	5	4	4	4	4	3
196	13	8	6	6	5	5	4	4	4	3
197	14	8	7	6	6	5	5	4	4	3
198	15	9	7	7	6	5	5	5	4	4
199	16	10	8	7	7	6	5	5	5	4
200	17	11	9	8	7	6	6	5	5	4
201	18	12	9	9	7	7	6	6	5	4
202	19	13	10	9	8	7	7	6	6	5
203	22	14	11	10	9	8	7	7	6	5
204	24	15	12	12	10	9	8	8	7	6
205	26	17	13	13	11	10	9	9	8	7
206	27	18	15	13	12	11	10	9	9	7
207	29	19	16	15	14	12	11	10	10	8
208	32	21	17	16	15	13	12	11	11	9
209	33	22	19	17	16	14	13	12	12	10
210	34	23	21	18	17	15	14	13	13	10
211	35	24	23	19	19	16	15	14	14	11
212	36	25	24	21	21	17	16	15	15	12
213	37	26	27	23	22	18	17	16	16	13
214	39	28	29	24	23	19	18	17	17	14
215	41	29	30	25	24	20	19	18	18	15
216	43	30	31	26	26	21	21	19	19	16
217	44	32	32	28	27	23	23	21	21	17
218	46	33	34	29	29	24	24	22	22	18
219	49	36	36	31	30	26	26	23	23	19
220	52	38	37	33	32	28	27	25	25	21

Table A.9. Grade 2 Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
221	54	40	39	35	34	30	29	27	26	22
222	55	41	41	36	35	31	30	28	28	23
223	57	43	42	38	37	33	32	30	30	25
224	59	44	44	39	38	34	34	31	31	26
225	60	45	46	40	39	35	35	33	32	27
226	62	47	48	42	41	37	36	34	33	29
227	63	48	49	44	43	39	38	36	35	30
228	64	50	50	45	45	40	39	37	37	32
229	66	53	52	48	47	43	42	39	39	34
230	69	56	53	50	50	45	45	42	41	36
231	71	57	56	53	52	48	47	44	44	38
232	72	59	58	54	54	49	49	46	45	39
233	74	61	60	56	55	51	50	48	47	42
234	77	65	62	59	58	54	53	50	49	44
235	79	67	63	62	61	57	56	54	52	47
236	80	69	65	64	64	60	59	56	55	50
237	81	71	68	66	65	61	61	58	57	52
238	84	74	71	69	68	64	63	61	60	54
239	86	77	72	72	70	67	66	64	62	57
240	88	79	74	74	72	70	68	66	65	60
241	90	82	77	76	74	72	70	69	67	62
242	91	84	79	78	76	74	72	71	69	65
243	91	85	80	80	78	76	74	72	71	67
244	92	87	82	82	80	77	76	74	73	68
245	93	88	83	83	82	79	78	76	75	71
246	94	89	85	85	83	81	80	78	77	73
247	95	91	87	86	84	82	81	80	78	74
248	95	92	88	87	85	84	82	81	80	76
249	96	92	89	88	86	85	84	82	81	77
250	96	93	90	89	88	86	85	84	83	79
251	97	94	91	91	89	88	87	85	84	81
252	97	94	92	91	90	88	88	86	86	82
253	97	95	93	92	91	89	89	87	87	84
254	98	96	93	93	92	90	90	88	88	85
255	98	96	94	94	93	91	91	89	89	86
256	98	96	95	94	93	92	91	90	89	87
257	98	97	95	95	94	92	92	91	90	88
258	98	97	96	95	94	93	93	91	91	88
259	99	97	96	96	95	93	93	92	91	89
260	99	98	97	96	95	94	94	92	92	89
261	99	98	97	96	95	94	94	93	92	90
262	99	98	97	96	96	95	94	93	93	90
263	99	98	97	97	96	95	95	94	93	91
264	99	98	97	97	96	95	95	94	93	91
265	99	98	98	97	96	96	95	94	94	92
266	99	98	98	97	97	96	95	94	94	92
267	99	98	98	97	97	96	96	95	94	92

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.9. Grade 2 Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
268	99	99	98	97	97	96	96	95	94	92
269	99	99	98	98	97	96	96	95	95	93
270	99	99	98	98	97	96	96	95	95	93
271	99	99	98	98	97	97	96	96	95	93
272	99	99	99	98	98	97	97	96	95	94
273	99	99	99	98	98	97	97	96	96	94
274	99	99	99	98	98	97	97	96	96	94
275	99	99	99	98	98	97	97	96	96	94
276	99	99	99	99	98	97	97	97	96	95
277	99	99	99	99	98	98	97	97	96	95
278	99	99	99	99	98	98	98	97	96	95
279	99	99	99	99	98	98	98	97	97	95
280	99	99	99	99	99	98	98	97	97	96
281	99	99	99	99	99	98	98	97	97	96
282	99	99	99	99	99	98	98	98	97	96
283	99	99	99	99	99	98	98	98	97	96
284	99	99	99	99	99	98	98	98	98	97
285	99	99	99	99	99	99	98	98	98	97
286	99	99	99	99	99	99	99	98	98	97
287	99	99	99	99	99	99	99	98	98	97
288	99	99	99	99	99	99	99	98	98	97
289	99	99	99	99	99	99	99	99	98	98
290	99	99	99	99	99	99	99	99	98	98
291	99	99	99	99	99	99	99	99	98	98
292	99	99	99	99	99	99	99	99	99	98
293	99	99	99	99	99	99	99	99	99	98
294	99	99	99	99	99	99	99	99	99	98
295	99	99	99	99	99	99	99	99	99	98
296	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.10. ISIP Early Reading Norming Table for Grade 3
Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
185	1	1	1	1	1	1	1	1	1	1
186	2	1	1	1	1	1	1	1	1	1
187	2	2	2	1	1	1	1	1	1	1
188	2	2	2	2	1	1	1	1	1	1
189	2	2	2	2	2	1	1	1	1	1
190	3	3	2	2	2	1	2	1	1	1
191	3	3	2	3	2	2	2	2	1	1
192	3	3	3	3	2	2	2	2	2	1
193	4	3	3	3	2	2	2	2	2	1
194	4	4	3	3	2	2	2	2	2	2
195	4	4	3	3	2	3	2	2	2	2
196	5	4	3	3	3	3	2	2	2	2
197	5	5	4	4	3	3	3	2	2	2
198	6	5	4	4	3	3	3	3	2	2
199	6	6	4	4	3	4	3	3	3	2
200	7	6	4	5	4	4	3	3	3	3
201	7	7	5	5	4	4	3	3	3	3
202	7	7	5	6	4	5	4	3	3	3
203	8	8	5	6	5	5	4	4	3	3
204	9	9	6	6	5	5	4	4	3	4
205	9	9	7	7	6	6	5	5	4	4
206	10	9	7	8	6	6	5	5	4	5
207	11	10	8	8	6	7	6	6	5	5
208	11	11	9	9	7	7	6	6	5	6
209	12	12	10	9	8	8	7	7	6	6
210	13	13	10	10	8	8	7	7	6	7
211	14	14	11	10	9	9	8	8	7	7
212	15	14	12	11	10	9	9	9	7	8
213	15	15	13	12	10	10	10	9	8	8
214	16	15	14	12	11	11	10	9	9	9
215	17	16	14	13	12	12	11	10	9	9
216	18	17	15	14	13	12	11	11	10	10
217	19	18	17	15	13	13	12	12	11	11
218	21	19	17	16	14	14	13	12	11	12
219	23	22	18	17	15	15	14	13	12	13
220	25	25	19	18	16	16	15	14	13	14
221	26	26	20	19	17	17	16	15	14	15
222	28	28	22	20	18	18	17	16	15	16
223	29	29	23	21	19	19	18	17	16	17
224	30	30	25	22	20	20	19	18	17	18
225	31	31	25	24	22	21	21	19	18	18
226	33	33	26	25	23	22	21	20	19	19
227	34	34	28	28	24	24	22	21	20	20
228	36	35	30	29	25	26	24	22	21	21
229	39	37	31	31	27	28	25	24	22	23

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.10. Grade 3 Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
230	42	39	34	33	30	29	27	26	23	25
231	44	43	37	35	32	31	29	28	25	26
232	47	46	40	38	33	33	31	29	27	27
233	50	49	41	41	35	36	32	30	29	29
234	54	53	43	43	40	39	34	33	30	31
235	57	56	47	46	41	41	36	36	31	34
236	58	58	50	50	43	44	40	38	35	36
237	61	60	54	53	45	47	42	40	40	38
238	64	63	57	56	48	50	44	43	41	40
239	68	67	60	59	51	53	47	46	43	43
240	71	70	62	61	54	56	50	49	44	46
241	74	73	64	63	57	58	53	52	47	49
242	75	75	68	66	59	60	56	54	50	51
243	76	76	69	68	61	63	58	56	52	53
244	80	79	71	70	63	66	60	59	54	55
245	83	81	73	72	66	68	63	61	56	58
246	85	83	75	74	68	69	65	63	59	60
247	86	85	77	76	70	71	67	65	61	62
248	87	86	79	78	72	73	69	67	64	63
249	88	87	80	79	73	75	71	69	66	65
250	89	88	81	81	76	77	73	71	67	68
251	90	89	82	83	78	78	75	73	69	70
252	91	90	84	84	80	80	77	75	71	71
253	91	90	85	85	81	81	78	76	74	73
254	92	91	86	86	83	82	80	78	75	75
255	93	92	87	87	84	83	81	79	77	76
256	93	92	89	88	85	84	83	81	78	77
257	94	93	90	89	87	85	84	82	80	79
258	94	94	90	90	87	86	85	83	81	80
259	95	94	91	90	88	87	86	84	82	80
260	95	95	92	91	89	87	87	84	83	81
261	95	95	92	91	90	88	88	85	84	82
262	96	96	93	92	90	88	88	86	85	83
263	96	96	93	92	91	89	89	86	86	84
264	96	96	94	92	91	89	89	87	86	84
265	96	96	94	92	92	89	90	88	87	85
266	96	96	94	93	92	90	90	88	87	85
267	96	96	94	93	92	90	91	88	88	86
268	96	96	95	93	92	91	91	89	88	86
269	97	97	95	94	93	91	91	89	89	86
270	97	97	95	94	93	91	92	90	89	87
271	97	97	96	94	93	92	92	90	90	87
272	97	97	96	95	94	92	92	90	90	88
273	97	97	96	95	94	92	93	91	90	88
274	98	98	96	95	94	93	93	91	91	89
275	98	98	96	95	95	93	93	92	91	89
276	98	98	97	96	95	93	94	92	91	90

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.10. Grade 3 Reading Comprehension Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
277	98	98	97	96	95	94	94	92	92	90
278	98	98	97	96	95	94	94	92	92	90
279	98	98	97	96	96	94	94	93	92	91
280	98	98	98	97	96	95	95	93	93	91
281	99	99	98	97	96	95	95	93	93	91
282	99	99	98	97	96	95	95	94	93	92
283	99	99	98	97	96	95	95	94	94	92
284	99	99	98	97	97	96	96	94	94	92
285	99	99	98	98	97	96	96	95	94	93
286	99	99	98	98	97	96	96	95	94	93
287	99	99	98	98	97	97	96	95	94	93
288	99	99	98	98	97	97	96	95	95	94
289	99	99	99	98	98	97	97	96	95	94
290	99	99	99	98	98	97	97	96	95	94
291	99	99	99	99	98	97	97	96	95	95
292	99	99	99	99	98	98	97	96	96	95
293	99	99	99	99	98	98	97	97	96	95
294	99	99	99	99	98	98	97	97	96	96
295	99	99	99	99	98	98	98	97	96	96
296	99	99	99	99	99	98	98	97	97	96
297	99	99	99	99	99	98	98	97	97	96
298	99	99	99	99	99	98	98	98	97	96
299	99	99	99	99	99	98	98	98	97	97
300	99	99	99	99	99	99	98	98	97	97
301	99	99	99	99	99	99	98	98	97	97
302	99	99	99	99	99	99	99	98	98	97
303	99	99	99	99	99	99	99	98	98	97
304	99	99	99	99	99	99	99	98	98	97
305	99	99	99	99	99	99	99	98	98	98
306	99	99	99	99	99	99	99	98	98	98
307	99	99	99	99	99	99	99	99	98	98
308	99	99	99	99	99	99	99	99	98	98
309	99	99	99	99	99	99	99	99	99	98
310	99	99	99	99	99	99	99	99	99	98
311	99	99	99	99	99	99	99	99	99	98
312	99	99	99	99	99	99	99	99	99	99

Table A.11. ISIP Early Reading Norming Table for Kindergarten
Letter Knowledge Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
126	1	1	1	1	1	1	1	1	1	1
127	2	1	1	1	1	1	1	1	1	1
128	2	1	1	1	1	1	1	1	1	1
129	2	2	1	1	1	1	1	1	1	1
130	2	2	1	1	1	1	1	1	1	1
131	2	2	1	1	1	1	1	1	1	1
132	2	2	1	1	1	1	1	1	1	1
133	2	2	1	1	1	1	1	1	1	1
134	3	2	2	1	1	1	1	1	1	1
135	3	2	2	1	1	1	1	1	1	1
136	3	2	2	1	1	1	1	1	1	1
137	3	2	2	1	1	1	1	1	1	1
138	3	2	2	1	1	1	1	1	1	1
139	3	3	2	2	2	1	1	1	1	1
140	4	3	2	2	2	2	1	2	2	1
141	4	3	2	2	2	2	2	2	2	2
142	4	3	2	2	2	2	2	2	2	2
143	4	3	3	2	2	2	2	2	2	2
144	5	4	3	2	2	2	2	2	2	2
145	5	4	3	2	2	2	2	2	2	2
146	6	4	3	3	2	2	2	2	2	2
147	6	5	4	3	2	2	2	2	2	2
148	7	5	4	3	3	3	2	2	3	3
149	8	6	4	3	3	3	2	3	3	3
150	8	6	5	4	3	3	3	3	3	3
151	10	7	5	4	3	3	3	3	3	3
152	11	8	6	4	4	4	3	3	3	3
153	12	9	6	5	4	4	3	4	4	4
154	13	9	7	5	4	4	4	4	4	4
155	14	10	7	5	5	5	4	4	4	4
156	15	11	8	6	5	5	4	4	4	4
157	16	12	9	6	6	5	5	5	5	5
158	17	13	10	7	6	6	5	5	5	5
159	19	14	10	8	7	6	5	5	5	5
160	20	15	11	8	7	7	6	6	6	6
161	22	16	12	9	8	7	6	6	6	6
162	23	17	13	10	8	8	7	6	7	7
163	25	18	15	10	9	8	7	7	7	7
164	27	19	16	11	10	9	8	7	7	8
165	29	20	17	12	11	10	8	8	8	8
166	31	22	19	13	11	11	9	9	9	9
167	33	24	21	14	12	12	10	9	9	9
168	35	26	22	16	13	13	11	10	10	10
169	37	28	24	17	15	14	11	11	11	11
170	40	30	26	18	16	15	12	12	12	12

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.11. Kindergarten Letter Knowledge Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
171	41	32	28	19	17	16	13	13	13	13
172	44	34	30	21	19	17	15	14	14	13
173	46	36	32	23	20	19	16	15	15	14
174	49	38	34	25	22	20	17	16	16	15
175	52	41	36	27	24	22	19	17	17	16
176	54	43	39	29	26	24	20	18	18	18
177	57	46	41	31	28	26	22	19	19	19
178	59	49	43	33	30	28	24	20	20	20
179	62	52	46	36	32	30	26	23	23	22
180	65	54	49	38	35	32	28	25	25	23
181	67	57	52	41	37	35	30	27	27	25
182	70	60	55	44	40	38	32	29	29	27
183	72	63	57	47	43	40	35	32	31	29
184	75	66	60	50	46	43	38	34	33	31
185	77	68	63	53	49	46	40	37	36	33
186	78	71	66	56	52	49	43	39	38	36
187	80	73	68	59	55	52	46	42	41	38
188	82	75	71	62	57	55	49	45	43	40
189	84	78	73	64	60	58	52	47	46	43
190	85	80	75	67	63	61	55	50	49	45
191	87	82	77	70	66	63	57	53	52	48
192	88	84	79	72	69	66	60	56	55	51
193	89	86	81	74	71	69	63	59	57	53
194	91	87	83	77	74	71	66	62	60	56
195	91	89	85	79	76	74	69	65	63	59
196	93	90	86	81	79	77	71	68	66	62
197	93	91	88	83	81	79	74	70	69	64
198	94	92	89	84	82	81	76	72	71	67
199	95	93	90	86	84	82	78	74	73	69
200	95	93	91	87	85	84	80	76	75	71
201	96	94	91	88	86	85	81	78	76	73
202	96	95	92	89	88	87	83	80	78	75
203	96	95	93	90	89	88	84	81	80	76
204	97	96	94	91	90	89	86	83	81	78
205	97	96	94	92	91	90	87	84	83	80
206	98	97	95	93	92	91	88	86	85	81
207	98	97	95	94	93	92	89	87	86	83
208	98	97	96	94	93	93	90	88	87	84
209	98	98	96	95	94	94	92	90	89	86
210	99	98	97	95	95	94	92	91	90	87
211	99	98	97	96	95	95	93	92	91	88
212	99	98	98	97	96	96	94	93	92	90
213	99	99	98	97	96	96	95	93	93	91
214	99	99	98	97	97	97	96	94	93	92
215	99	99	98	98	97	97	96	95	94	93
216	99	99	99	98	98	97	97	95	95	93
217	99	99	99	98	98	98	97	96	95	94

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.11. Kindergarten Letter Knowledge Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
218	99	99	99	99	98	98	97	96	96	95
219	99	99	99	99	98	98	98	97	96	96
220	99	99	99	99	99	99	98	97	97	96
221	99	99	99	99	99	99	98	98	97	97
222	99	99	99	99	99	99	99	98	98	97
223	99	99	99	99	99	99	99	98	98	97
224	99	99	99	99	99	99	99	98	98	98
225	99	99	99	99	99	99	99	99	98	98
226	99	99	99	99	99	99	99	99	99	98
227	99	99	99	99	99	99	99	99	99	98

Table A.12. ISIP Early Reading Norming Table for Grade 1
Letter Knowledge Scores

228	99	99	99	99	99	99	99	99	99	99
Score	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**
155	1	1	1	1	1	1	1	1	1	1
156	2	1	2	2	2	2	2	2	2	2
157	2	1	2	2	2	2	2	3	3	3
158	2	2	2	2	2	2	2	3	3	3
159	2	2	2	2	2	2	3	3	3	3
160	2	2	2	2	3	3	3	3	3	3
161	2	2	2	2	3	3	3	3	3	4
162	2	2	2	2	3	3	3	3	3	4
163	2	2	3	3	3	3	3	4	3	4
164	3	3	3	3	3	3	3	4	4	4
165	3	3	3	3	3	4	4	4	4	4
166	3	3	3	3	4	4	4	4	4	5
167	3	3	3	3	4	4	4	4	5	5
168	4	3	4	4	4	4	4	5	5	5
169	4	4	4	4	5	5	5	5	5	5
170	5	4	4	4	5	5	5	5	5	6
171	5	5	5	5	6	5	5	6	6	6
172	6	5	5	5	6	6	6	6	6	6
173	6	6	6	6	6	6	6	6	7	7
174	7	6	6	6	7	7	7	7	7	7
175	7	7	7	7	7	7	7	7	8	8
176	8	8	7	7	8	8	8	8	8	8
177	9	9	8	8	9	8	8	8	9	8
178	10	10	9	9	10	9	9	9	10	9
179	11	11	10	9	10	10	10	9	10	9
180	12	12	11	10	12	11	10	10	11	10
181	13	13	12	11	13	11	11	11	12	11
182	15	15	14	13	14	13	12	11	13	12
183	17	17	15	14	15	14	13	12	14	12
184	18	18	17	15	16	15	14	13	15	13
185	20	20	18	17	18	16	16	14	16	14
186	22	22	20	18	19	18	17	15	17	15
187	24	25	22	20	21	19	18	17	18	16
188	26	28	24	22	23	21	20	18	19	17
189	29	30	26	24	25	23	21	20	21	18
190	31	33	29	26	27	25	23	21	22	20
191	34	36	31	29	29	27	25	23	24	21
192	38	38	34	31	31	29	27	25	26	23
193	39	39	37	34	34	31	30	27	28	24
194	42	44	39	37	36	34	32	29	30	26
195	45	47	42	39	39	37	34	32	32	28
196	48	49	44	42	42	39	37	34	34	30
197	51	52	46	44	45	42	40	37	37	33
198	54	54	49	47	47	45	42	40	40	36

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.12. Grade 1 Letter Knowledge Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
199	56	56	51	49	50	48	45	43	42	40
200	58	59	53	52	53	51	47	46	45	38
201	60	62	56	54	55	53	50	48	48	41
202	63	64	58	56	57	55	52	51	50	44
203	65	67	61	59	60	58	54	53	53	46
204	67	69	63	61	62	60	57	55	55	48
205	69	71	65	63	65	62	59	57	57	51
206	72	73	67	66	67	64	61	60	60	53
207	74	75	69	68	69	67	64	62	62	55
208	76	77	72	70	71	69	66	64	64	57
209	77	79	74	72	73	71	68	67	66	59
210	79	81	76	75	76	73	71	69	68	61
211	81	82	77	77	77	75	73	71	70	63
212	82	84	79	79	79	77	75	73	72	65
213	84	86	81	80	81	79	77	75	74	68
214	85	87	83	82	83	81	79	77	76	70
215	87	88	84	84	84	83	81	79	78	72
216	87	89	85	85	86	85	83	81	80	74
217	89	90	87	87	87	86	84	83	82	76
218	90	91	88	88	88	87	86	84	83	78
219	91	92	89	89	90	89	87	86	85	80
220	92	93	90	90	91	90	88	87	86	82
221	93	93	91	91	92	91	90	89	87	83
222	93	94	92	92	93	92	91	90	88	85
223	94	94	93	93	94	93	92	91	89	86
224	95	95	94	94	95	94	93	92	91	87
225	95	96	94	95	95	95	94	93	91	89
226	96	96	96	95	96	95	94	94	93	90
227	96	97	96	96	96	96	95	94	94	91
228	96	97	97	97	97	96	96	95	94	92
229	96	97	97	97	97	97	96	96	95	93
230	97	98	97	97	98	97	97	96	96	94
231	97	98	97	98	98	98	98	97	96	95
232	98	98	98	98	98	98	98	97	97	95
233	98	98	98	98	99	98	98	98	97	96
234	98	99	98	98	99	98	98	98	98	96
235	98	99	99	99	99	99	99	98	98	97
236	99	99	99	99	99	99	99	98	98	97
237	99	99	99	99	99	99	99	99	99	98
238	99	99	99	99	99	99	99	99	99	98
239	99	99	99	99	99	99	99	99	99	98
240	99	99	99	99	99	99	99	99	99	98
241	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.13. ISIP Early Reading Norming Table for Kindergarten Phonemic Awareness Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
134	1	2	2	1	1	1	1	1	1	1
135	2	2	2	1	1	1	1	1	1	1
136	2	2	2	1	1	1	1	1	1	1
137	2	2	2	2	1	1	1	1	1	1
138	2	2	2	2	2	1	1	1	1	1
139	2	2	2	2	2	2	1	1	1	1
140	2	3	3	2	2	2	1	1	1	1
141	2	3	3	2	2	2	2	2	1	2
142	3	3	3	2	2	2	2	2	2	2
143	3	3	3	3	3	2	2	2	2	2
144	3	4	4	3	3	2	2	2	2	2
145	4	4	4	3	3	3	2	2	2	2
146	4	4	4	3	3	3	2	2	2	2
147	5	5	5	4	4	3	3	2	3	3
148	5	5	5	4	4	3	3	3	3	3
149	5	6	6	4	4	4	3	3	3	3
150	6	6	6	5	4	4	3	3	3	3
151	7	7	7	5	5	4	3	3	3	3
152	7	7	7	6	5	5	4	4	4	4
153	8	8	8	6	6	5	4	4	4	4
154	9	9	8	6	6	5	4	4	4	4
155	10	9	9	7	6	6	5	4	4	4
156	11	10	10	7	7	6	5	5	5	5
157	12	11	10	8	7	7	5	5	5	5
158	13	12	11	9	8	7	6	5	5	5
159	14	13	12	9	9	8	6	6	6	6
160	15	13	13	10	9	8	7	6	6	6
161	16	15	14	11	10	9	7	7	7	6
162	18	16	15	12	11	10	8	7	7	7
163	20	17	16	13	12	10	9	8	8	7
164	21	18	17	14	13	11	9	9	8	8
165	23	20	19	15	14	12	10	9	9	8
166	24	22	20	16	15	13	11	10	10	9
167	26	23	22	17	16	14	12	11	10	10
168	28	25	24	19	17	15	13	11	11	10
169	31	27	26	20	18	16	14	12	12	11
170	33	29	28	22	19	17	15	13	13	12
171	35	32	30	23	21	18	16	14	14	13
172	37	34	32	25	22	19	17	15	15	14
173	40	37	34	26	24	21	18	16	16	15
174	43	39	37	28	26	23	19	17	17	16
175	45	42	39	30	28	25	21	19	19	17
176	49	45	42	33	30	26	23	20	20	19
177	52	48	44	35	32	28	25	22	22	20
178	55	51	47	37	34	30	27	24	23	22

Table A.13. Kindergarten Phonemic Awareness Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
179	58	54	49	39	36	32	29	25	25	23
180	61	56	52	41	38	34	31	27	27	25
181	64	59	54	44	40	37	33	29	29	27
182	66	62	57	46	43	39	35	31	31	29
183	69	65	60	49	45	42	38	34	33	31
184	71	68	62	51	48	44	40	36	36	33
185	74	70	65	54	50	47	43	38	38	35
186	76	73	67	56	53	49	45	41	41	38
187	77	75	70	59	55	52	48	44	44	40
188	79	77	72	62	58	55	51	46	47	43
189	81	79	74	64	61	58	54	49	49	46
190	83	81	76	67	63	60	57	52	52	49
191	84	83	78	69	66	63	60	55	56	52
192	86	84	80	72	69	66	63	58	59	55
193	87	86	82	74	71	69	66	61	62	58
194	89	87	84	76	74	71	69	64	65	61
195	91	89	85	78	76	74	71	67	68	65
196	92	90	87	80	79	77	74	70	71	68
197	93	91	88	82	81	79	77	73	74	71
198	94	92	90	84	83	81	79	76	77	74
199	95	93	91	86	85	84	81	78	80	77
200	95	94	92	88	87	86	84	81	82	79
201	96	95	93	89	88	88	86	83	84	82
202	96	96	94	90	90	89	88	85	86	84
203	97	96	95	92	91	91	89	87	88	86
204	97	97	96	93	92	92	91	89	90	88
205	98	97	96	94	93	93	92	91	92	90
206	98	98	97	95	95	94	93	92	93	91
207	98	98	97	95	95	95	95	93	94	92
208	99	98	98	96	96	96	95	94	95	94
209	99	99	98	97	97	97	96	95	96	94
210	99	99	98	97	97	97	97	96	96	95
211	99	99	99	97	98	98	97	97	97	96
212	99	99	99	98	98	98	98	97	97	97
213	99	99	99	98	98	98	98	98	98	97
214	99	99	99	98	98	98	98	98	98	98
215	99	99	99	99	99	99	99	98	98	98
216	99	99	99	99	99	99	99	98	99	98
217	99	99	99	99	99	99	99	99	99	98
218	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.14. ISIP Early Reading Norming Table for Grade 1
Phonemic Awareness Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
134	1	2	2	1	1	1	1	1	1	1
135	2	2	2	1	1	1	1	1	1	1
136	2	2	2	1	1	1	1	1	1	1
137	2	2	2	2	1	1	1	1	1	1
138	2	2	2	2	2	1	1	1	1	1
139	2	2	2	2	2	2	1	1	1	1
140	2	3	3	2	2	2	1	1	1	1
141	2	3	3	2	2	2	2	2	1	2
142	3	3	3	2	2	2	2	2	2	2
143	3	3	3	3	3	2	2	2	2	2
144	3	4	4	3	3	2	2	2	2	2
145	4	4	4	3	3	3	2	2	2	2
146	4	4	4	3	3	3	2	2	2	2
147	5	5	5	4	4	3	3	2	3	3
148	5	5	5	4	4	3	3	3	3	3
149	5	6	6	4	4	4	3	3	3	3
150	6	6	6	5	4	4	3	3	3	3
151	7	7	7	5	5	4	3	3	3	3
152	7	7	7	6	5	5	4	4	4	4
153	8	8	8	6	6	5	4	4	4	4
154	9	9	8	6	6	5	4	4	4	4
155	10	9	9	7	6	6	5	4	4	4
156	11	10	10	7	7	6	5	5	5	5
157	12	11	10	8	7	7	5	5	5	5
158	13	12	11	9	8	7	6	5	5	5
159	14	13	12	9	9	8	6	6	6	6
160	15	13	13	10	9	8	7	6	6	6
161	16	15	14	11	10	9	7	7	7	6
162	18	16	15	12	11	10	8	7	7	7
163	20	17	16	13	12	10	9	8	8	7
164	21	18	17	14	13	11	9	9	8	8
165	23	20	19	15	14	12	10	9	9	8
166	24	22	20	16	15	13	11	10	10	9
167	26	23	22	17	16	14	12	11	10	10
168	28	25	24	19	17	15	13	11	11	10
169	31	27	26	20	18	16	14	12	12	11
170	33	29	28	22	19	17	15	13	13	12
171	35	32	30	23	21	18	16	14	14	13
172	37	34	32	25	22	19	17	15	15	14
173	40	37	34	26	24	21	18	16	16	15
174	43	39	37	28	26	23	19	17	17	16
175	45	42	39	30	28	25	21	19	19	17
176	49	45	42	33	30	26	23	20	20	19
177	52	48	44	35	32	28	25	22	22	20
178	55	51	47	37	34	30	27	24	23	22
179	58	54	49	39	36	32	29	25	25	23

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.14. Grade 1 Phonemic Awareness Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
180	61	56	52	41	38	34	31	27	27	25
181	64	59	54	44	40	37	33	29	29	27
182	66	62	57	46	43	39	35	31	31	29
183	69	65	60	49	45	42	38	34	33	31
184	71	68	62	51	48	44	40	36	36	33
185	74	70	65	54	50	47	43	38	38	35
186	76	73	67	56	53	49	45	41	41	38
187	77	75	70	59	55	52	48	44	44	40
188	79	77	72	62	58	55	51	46	47	43
189	81	79	74	64	61	58	54	49	49	46
190	83	81	76	67	63	60	57	52	52	49
191	84	83	78	69	66	63	60	55	56	52
192	86	84	80	72	69	66	63	58	59	55
193	87	86	82	74	71	69	66	61	62	58
194	89	87	84	76	74	71	69	64	65	61
195	91	89	85	78	76	74	71	67	68	65
196	92	90	87	80	79	77	74	70	71	68
197	93	91	88	82	81	79	77	73	74	71
198	94	92	90	84	83	81	79	76	77	74
199	95	93	91	86	85	84	81	78	80	77
200	95	94	92	88	87	86	84	81	82	79
201	96	95	93	89	88	88	86	83	84	82
202	96	96	94	90	90	89	88	85	86	84
203	97	96	95	92	91	91	89	87	88	86
204	97	97	96	93	92	92	91	89	90	88
205	98	97	96	94	93	93	92	91	92	90
206	98	98	97	95	95	94	93	92	93	91
207	98	98	97	95	95	95	95	93	94	92
208	99	98	98	96	96	96	95	94	95	94
209	99	99	98	97	97	97	96	95	96	94
210	99	99	98	97	97	97	97	96	96	95
211	99	99	99	97	98	98	97	97	97	96
212	99	99	99	98	98	98	98	97	97	97
213	99	99	99	98	98	98	98	98	98	97
214	99	99	99	98	98	98	98	98	98	98
215	99	99	99	99	99	99	99	98	98	98
216	99	99	99	99	99	99	99	98	99	98
217	99	99	99	99	99	99	99	99	99	98
218	99	99	99	99	99	99	99	99	99	99

Table A.15. ISIP Early Reading Norming Table for Grade 1
Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
163	1	1	1	1	1	1	1	1	1	1
164	2	2	1	1	1	1	1	1	1	1
165	3	2	1	1	1	1	1	1	1	1
166	4	3	1	1	1	1	1	1	1	1
167	5	4	1	1	1	1	1	1	1	1
168	6	4	1	1	1	1	1	1	1	1
169	6	5	2	2	1	2	1	1	1	1
170	7	6	6	4	3	3	2	2	2	2
171	8	6	6	4	3	3	3	2	2	2
172	8	7	6	4	4	3	3	2	2	2
173	8	7	6	4	4	3	3	2	2	2
174	8	7	7	5	4	3	3	2	2	2
175	8	7	7	5	4	3	3	3	2	2
176	8	7	7	5	4	4	3	3	2	2
177	8	7	7	5	4	4	3	3	3	2
178	8	7	7	5	4	4	3	3	3	2
179	9	7	7	5	4	4	3	3	3	2
180	9	7	7	5	4	4	3	3	3	2
181	9	7	7	5	4	4	3	3	3	2
182	10	8	8	5	4	4	3	3	3	2
183	13	10	9	6	5	4	4	3	3	3
184	14	11	9	7	5	5	4	4	3	3
185	15	12	10	7	6	5	4	4	4	3
186	15	12	11	8	6	6	5	4	4	3
187	16	12	12	8	7	6	5	4	4	3
188	16	12	12	8	7	6	5	5	4	4
189	17	13	13	9	7	6	6	5	4	4
190	20	15	14	10	8	7	6	5	5	4
191	23	17	15	11	8	8	7	6	5	4
192	27	20	17	13	10	9	8	6	6	5
193	31	23	21	15	12	10	9	8	7	6
194	33	26	24	17	14	12	10	9	8	7
195	33	27	26	18	15	13	11	9	8	7
196	35	29	28	19	16	13	12	10	9	7
197	40	33	30	21	17	14	12	11	9	8
198	43	37	32	24	19	16	13	12	10	9
199	51	44	37	28	22	19	15	13	12	10
200	52	46	40	31	24	21	17	15	13	11
201	54	48	43	32	25	22	18	15	14	11
202	60	54	46	35	28	24	20	17	15	12
203	61	55	50	37	31	26	22	18	17	14
204	63	59	53	41	33	28	24	19	18	14
205	67	62	56	44	36	30	26	21	19	16
206	69	64	60	48	39	33	29	24	22	17
207	72	67	62	50	42	36	31	25	23	18

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.15. Grade 1 Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
208	74	71	64	52	44	37	33	27	25	19
209	75	73	68	56	48	41	36	29	27	21
210	77	75	70	58	51	43	38	31	29	23
211	80	78	73	62	54	46	41	34	31	25
212	81	80	75	65	56	49	43	36	32	27
213	82	81	77	67	58	52	45	38	35	29
214	83	84	80	70	62	55	48	41	38	31
215	84	85	81	72	64	57	50	43	39	33
216	85	86	82	74	66	59	52	46	41	35
217	86	86	84	76	69	62	55	48	44	37
218	86	87	85	77	70	64	57	50	46	39
219	88	89	86	80	73	67	60	54	49	43
220	89	90	87	81	75	68	62	56	52	45
221	89	91	88	82	77	71	65	59	54	48
222	90	91	89	84	79	72	66	61	56	50
223	91	92	90	85	80	75	69	63	58	53
224	92	93	91	87	82	77	72	67	62	56
225	92	93	92	88	84	79	74	69	65	59
226	93	94	94	90	87	82	78	72	68	62
227	93	95	94	91	88	83	80	74	71	65
228	94	95	95	91	89	84	81	75	72	66
229	94	96	95	92	90	86	83	78	75	69
230	95	96	96	93	91	87	85	80	77	71
231	95	97	97	94	92	89	87	82	79	74
232	96	97	97	95	94	90	88	84	82	76
233	96	98	97	95	94	91	89	85	83	78
234	96	98	97	96	94	91	90	86	84	79
235	97	98	98	96	95	92	90	87	85	80
236	97	98	98	96	95	93	91	88	86	81
237	97	98	98	97	96	93	92	89	87	83
238	98	99	98	97	96	94	93	91	89	85
239	98	99	98	97	96	94	93	91	89	85
240	98	99	99	97	97	95	94	92	90	87
241	98	99	99	98	97	95	94	93	91	88
242	98	99	99	98	97	96	95	94	92	89
243	98	99	99	98	98	96	96	94	93	91
244	99	99	99	99	98	97	96	95	94	91
245	99	99	99	99	98	97	97	96	94	93
246	99	99	99	99	98	98	97	96	95	93
247	99	99	99	99	99	98	97	97	95	94
248	99	99	99	99	99	98	97	97	96	94
249	99	99	99	99	99	98	98	97	97	95
250	99	99	99	99	99	99	98	98	97	96
251	99	99	99	99	99	99	98	98	97	96
252	99	99	99	99	99	99	99	98	98	97
253	99	99	99	99	99	99	99	98	98	97
254	99	99	99	99	99	99	99	99	98	97

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.15. Grade 1 Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
255	99	99	99	99	99	99	99	99	98	98
256	99	99	99	99	99	99	99	99	99	98
257	99	99	99	99	99	99	99	99	99	98
258	99	99	99	99	99	99	99	99	99	98

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.16. ISIP Early Reading Norming Table for Grade 2
Spelling Scores

259	99	99	99	99	99	99	99	99	99	99
Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
175	1	1	1	1	1	1	1	1	1	1
176	2	1	1	1	1	1	1	1	1	1
177	2	1	1	1	1	1	1	1	1	1
178	2	1	1	1	1	1	1	1	1	1
179	2	1	1	1	1	1	1	1	1	1
180	2	1	1	1	1	1	1	1	1	1
181	2	1	1	1	1	1	1	1	1	1
182	2	1	1	1	1	1	1	1	1	1
183	2	2	2	1	1	1	1	1	1	1
184	2	2	2	2	1	1	1	1	1	1
185	3	2	2	2	1	2	1	1	1	1
186	3	2	2	2	2	2	1	1	1	1
187	3	2	2	2	2	2	1	2	2	1
188	3	2	2	2	2	2	2	2	2	1
189	3	2	3	2	2	2	2	2	2	1
190	3	3	3	2	2	2	2	2	2	2
191	4	3	3	2	2	2	2	2	2	2
192	4	4	4	3	3	3	2	2	2	2
193	6	4	4	3	3	3	3	3	2	2
194	6	5	5	4	3	3	3	3	3	2
195	8	5	5	4	4	3	3	3	3	3
196	8	6	6	4	4	4	4	3	3	3
197	9	7	6	5	4	4	4	3	3	3
198	11	7	7	5	5	4	4	4	4	3
199	12	9	7	6	5	5	5	4	4	3
200	15	9	8	7	6	5	5	5	4	4
201	15	10	9	7	6	6	5	5	5	4
202	16	11	10	8	7	6	6	5	5	4
203	19	12	11	8	8	7	6	6	6	4
204	19	13	12	9	8	7	7	6	6	5
205	21	14	13	10	9	8	7	6	6	5
206	23	15	16	11	10	9	9	7	7	6
207	24	17	17	12	12	10	9	8	8	6
208	26	18	18	13	12	10	10	8	8	7
209	29	20	19	14	13	11	11	9	9	7
210	30	22	21	15	14	12	12	10	10	8
211	33	24	23	16	16	13	12	11	10	9
212	36	26	24	17	17	14	13	11	11	9
213	38	27	26	19	18	15	14	13	12	10
214	39	30	29	21	19	17	16	14	13	11
215	42	31	31	23	22	18	17	15	14	12
216	44	33	32	24	23	19	18	16	15	13
217	46	35	34	27	25	21	19	17	17	14
218	48	37	36	28	26	23	21	19	18	15

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.16. Grade 2 Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
219	50	41	39	32	29	25	23	21	19	17
220	55	44	42	34	31	27	25	22	21	18
221	57	46	44	36	34	30	27	24	23	19
222	59	47	46	38	35	31	29	26	24	21
223	60	51	49	41	38	34	31	28	26	23
224	63	55	52	45	41	37	34	31	29	25
225	66	57	55	48	44	39	36	33	31	28
226	68	60	59	50	47	42	39	35	33	29
227	70	62	61	53	50	44	42	37	36	32
228	72	63	62	54	51	45	43	39	37	33
229	73	65	66	57	55	48	46	41	39	35
230	74	68	69	60	58	51	49	44	43	38
231	77	70	71	63	60	54	52	46	46	39
232	78	73	74	66	64	57	55	50	49	43
233	81	75	76	68	66	59	57	52	51	45
234	82	76	77	69	67	60	58	53	52	46
235	83	77	78	71	69	62	60	54	53	48
236	84	78	80	72	71	64	62	57	55	50
237	85	81	82	75	73	67	65	60	58	53
238	87	82	83	77	75	70	68	63	61	56
239	88	83	84	78	76	70	68	64	62	57
240	89	84	85	80	78	72	71	66	64	59
241	90	86	87	81	79	74	72	68	66	61
242	91	87	88	83	81	76	75	70	69	64
243	92	89	89	85	83	79	77	74	72	67
244	93	91	90	87	85	81	79	75	73	69
245	94	92	91	89	86	83	80	78	75	71
246	95	93	92	90	88	84	82	79	77	73
247	95	93	93	90	88	85	83	80	78	74
248	96	94	93	91	89	86	84	82	80	76
249	96	95	94	92	91	88	87	84	82	79
250	97	95	95	93	92	89	88	86	84	81
251	97	96	96	94	92	90	89	87	85	82
252	97	96	96	94	93	91	90	88	86	83
253	98	97	97	95	94	92	91	89	87	84
254	98	97	97	95	95	92	91	90	88	85
255	98	97	97	96	95	93	92	91	89	86
256	98	98	98	96	96	94	93	91	90	88
257	98	98	98	97	96	95	94	92	91	89
258	99	98	98	97	96	95	94	93	92	89
259	99	98	98	97	97	95	95	94	92	90
260	99	99	99	98	97	96	95	94	93	91
261	99	99	99	98	98	96	96	95	94	92
262	99	99	99	98	98	97	96	96	95	93
263	99	99	99	99	98	97	97	96	95	94
264	99	99	99	99	99	98	97	97	96	95
265	99	99	99	99	99	98	98	97	97	95

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.16. Grade 2 Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
266	99	99	99	99	99	98	98	98	97	96
267	99	99	99	99	99	99	98	98	97	96
268	99	99	99	99	99	99	99	98	98	97
269	99	99	99	99	99	99	99	99	98	97
270	99	99	99	99	99	99	99	99	99	98
271	99	99	99	99	99	99	99	99	99	98
272	99	99	99	99	99	99	99	99	99	98
273	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.17. ISIP Early Reading Norming Table for Grade 3
Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
186	1	1	1	1	1	1	1	1	1	1
187	2	1	1	1	1	1	1	1	1	1
188	2	1	1	1	1	1	1	1	1	1
189	2	1	2	1	1	1	1	1	1	1
190	2	2	2	1	2	1	2	1	1	2
191	2	2	2	2	2	1	2	2	2	2
192	3	2	2	2	2	2	2	2	2	2
193	3	2	3	2	2	2	2	2	2	2
194	4	3	3	2	2	2	2	2	2	2
195	4	3	3	2	2	2	2	2	2	2
196	4	3	3	3	3	2	2	2	2	2
197	5	3	4	3	3	2	3	2	3	2
198	5	4	4	3	3	3	3	3	3	3
199	6	4	4	3	3	3	3	3	3	3
200	6	4	4	4	4	3	3	3	3	3
201	6	5	5	4	4	3	4	3	3	3
202	7	5	5	4	4	4	4	3	4	3
203	7	5	6	4	5	4	4	4	4	4
204	8	6	6	5	5	4	4	4	4	4
205	9	6	7	5	5	4	5	4	5	4
206	9	7	8	5	6	5	6	5	5	5
207	10	8	9	6	7	5	6	5	6	5
208	11	8	9	6	7	6	6	5	6	5
209	12	8	10	7	8	6	7	6	6	5
210	12	9	11	7	8	6	7	6	7	6
211	14	10	11	8	9	7	8	6	7	6
212	15	11	12	9	9	7	8	7	7	7
213	15	11	13	9	10	8	9	7	8	7
214	16	12	14	10	11	9	10	8	9	8
215	17	13	15	11	12	9	11	9	9	8
216	18	14	16	12	12	10	11	9	10	9
217	20	15	17	13	14	11	12	10	11	10
218	21	17	18	14	14	12	13	11	11	10
219	23	19	19	16	16	13	14	12	12	11
220	25	21	22	17	17	15	15	13	13	12
221	26	22	23	18	18	16	16	15	15	13
222	28	23	24	19	19	17	17	15	15	14
223	31	25	26	22	21	18	19	17	17	15
224	34	27	28	24	23	20	20	18	18	17
225	36	29	30	26	24	22	22	19	19	18
226	38	31	32	27	26	23	23	21	21	19
227	40	34	34	30	28	26	25	23	23	21
228	42	38	36	31	30	27	27	24	24	22
229	43	40	38	32	32	28	29	25	26	23
230	46	41	41	35	34	30	31	27	27	25

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.17. Grade 3 Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
231	48	42	44	37	37	32	33	29	29	26
232	51	43	47	39	39	34	36	31	32	28
233	53	45	49	41	42	37	37	33	34	30
234	54	46	50	42	43	37	38	33	34	31
235	56	47	51	44	44	39	39	35	36	32
236	57	49	54	46	46	40	42	37	37	34
237	60	52	57	49	49	44	45	39	39	36
238	63	55	60	52	52	46	47	42	42	39
239	63	56	60	52	52	47	48	42	43	39
240	66	58	63	55	55	49	50	45	45	41
241	68	60	65	57	56	51	52	46	47	43
242	70	63	67	59	59	54	54	49	49	45
243	73	67	70	63	62	57	58	53	53	49
244	76	70	72	65	64	59	60	55	55	51
245	78	73	74	67	66	62	61	57	56	53
246	80	74	76	69	68	63	64	59	59	55
247	81	75	77	70	70	64	65	60	60	56
248	82	77	78	72	72	67	67	62	62	58
249	85	80	81	76	75	70	71	66	66	63
250	87	81	83	78	77	72	73	68	68	65
251	87	83	84	79	78	74	75	70	70	66
252	88	84	86	80	80	76	77	72	72	69
253	89	85	87	82	81	77	78	73	73	70
254	90	86	87	82	82	78	79	74	74	71
255	91	88	89	84	84	79	80	76	76	73
256	92	88	90	85	85	81	82	77	78	75
257	93	89	91	87	86	83	83	79	79	76
258	93	90	91	88	87	83	84	80	80	77
259	94	91	92	89	88	85	85	82	82	79
260	94	92	93	90	89	86	86	83	83	80
261	95	92	94	91	90	87	87	84	84	82
262	96	94	94	92	91	89	89	86	85	83
263	97	94	95	93	92	90	90	87	87	85
264	97	95	96	94	93	91	91	89	89	87
265	98	95	96	95	94	92	92	90	90	88
266	98	96	97	96	95	93	93	91	91	89
267	98	97	97	96	95	94	94	92	92	90
268	99	97	98	97	96	95	94	93	92	91
269	99	98	98	97	96	95	95	94	93	92
270	99	98	98	98	97	96	96	95	95	94
271	99	98	99	98	98	97	97	95	95	94
272	99	98	99	98	98	97	97	96	96	95
273	99	99	99	98	98	97	98	96	96	96
274	99	99	99	99	99	98	98	97	97	96
275	99	99	99	99	99	98	98	97	98	97
276	99	99	99	99	99	99	99	98	98	97
277	99	99	99	99	99	99	99	98	98	98

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.17. Grade 3 Spelling Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
278	99	99	99	99	99	99	99	98	98	98
279	99	99	99	99	99	99	99	98	98	98
280	99	99	99	99	99	99	99	98	99	98
281	99	99	99	99	99	99	99	99	99	98
282	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

132

Table A.18. ISIP Early Reading Norming Table for Grade 1
Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
0						42	40	38	36	30
1						46	43	41	39	33
2						49	46	44	41	35
3						51	48	46	43	37
4						53	50	48	45	39
5						55	52	50	47	40
6						56	53	51	48	42
7						57	54	52	49	43
8						58	55	53	51	44
9						59	57	55	52	45
10						60	57	56	53	46
11						61	58	56	54	47
12						62	59	57	55	48
13						64	61	59	57	50
14						64	61	60	57	50
15						65	62	60	57	51
16						66	63	61	58	51
17						67	65	63	60	53
18						68	65	64	61	54
19						68	65	64	61	54
20						69	67	65	62	55
21						71	68	67	64	57
22						71	69	68	65	58
23						72	69	68	66	59
24						73	70	69	66	59
25						74	71	70	68	61
26						74	72	71	69	62
27						75	72	72	69	62
28						76	73	73	70	63
29						77	75	74	72	64
30						77	75	75	72	65
31						78	76	75	73	66
32						78	77	76	74	67
33						80	78	77	75	68
34						80	78	78	76	69
35						80	78	78	76	70
36						81	80	79	77	70
37						82	81	80	78	71
38						83	81	81	79	73
39						83	81	81	79	73
40						83	82	82	80	74
41						84	83	83	81	74
42						85	84	84	82	76
43						85	84	84	82	76
44						85	85	84	82	77
45						86	85	85	83	77

Copyright ©2011 istation - All rights reserved   972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.18. Grade 1 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
46						87	86	86	84	78
47						87	86	86	85	79
48						87	87	87	85	79
49						88	87	87	85	80
50						89	88	88	86	81
51						89	88	88	87	81
52						89	88	89	87	82
53						89	89	89	87	82
54						90	90	90	88	83
55						91	90	90	89	84
56						91	90	91	89	84
57						91	91	91	89	85
58						91	91	91	90	85
59						92	92	92	90	86
60						92	92	92	91	87
61						92	92	92	91	87
62						93	93	93	91	87
63						93	93	93	92	88
64						93	93	94	92	89
65						94	94	94	92	89
66						94	94	94	93	89
67						94	94	94	93	90
68						94	94	95	93	90
69						95	95	95	94	90
70						95	95	95	94	91
71						95	95	95	94	91
72						95	95	95	94	92
73						95	96	96	94	92
74						96	96	96	95	92
75						96	96	96	95	93
76						96	96	96	95	93
77						96	96	96	95	93
78						96	97	97	96	93
79						96	97	97	96	94
80						97	97	97	96	94
81						97	97	97	96	94
82						97	97	97	96	94
83						97	97	97	96	95
84						97	97	97	97	95
85						97	97	98	97	95
86						97	98	98	97	95
87						98	98	98	97	96
88						98	98	98	97	96
89						98	98	98	97	96
90						98	98	98	98	96
91						98	98	98	98	96
92						98	98	98	98	97

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.18. Grade 1 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
93						98	98	98	98	97
94						98	98	98	98	97
95						98	98	98	98	97
96						98	98	98	98	97
97						99	99	99	98	97
98						99	99	99	98	97
99						99	99	99	98	98
100						99	99	99	98	98
101						99	99	99	99	98
102						99	99	99	99	98
103						99	99	99	99	98
104						99	99	99	99	98
105						99	99	99	99	98
106						99	99	99	99	98
107						99	99	99	99	98

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.19. ISIP Early Reading Norming Table for Grade 2
Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
0	43	31	23	19	17	18	17	15	15	12
1	46	34	25	22	19	20	19	17	16	13
2	49	36	27	23	21	21	20	18	17	15
3	51	38	29	25	22	23	22	19	19	16
4	53	39	30	26	24	24	23	20	20	16
5	55	41	32	27	25	25	24	21	21	17
6	56	42	33	28	26	26	25	22	21	18
7	58	43	34	29	26	27	25	23	22	19
8	59	44	35	30	28	28	26	24	23	19
9	61	46	36	31	29	29	27	25	24	20
10	62	47	37	32	29	29	28	25	24	21
11	62	47	37	32	30	30	28	25	25	21
12	63	48	39	33	31	31	29	26	26	22
13	64	50	40	34	32	32	31	27	26	23
14	65	51	40	35	32	32	31	28	27	23
15	65	51	41	35	33	33	31	28	27	23
16	66	52	42	36	34	34	32	29	28	24
17	68	54	43	38	35	35	34	30	29	25
18	69	55	44	38	36	36	34	31	30	25
19	69	55	44	39	36	36	35	31	30	26
20	70	56	45	40	37	37	35	31	31	26
21	71	57	46	41	38	38	37	33	32	27
22	72	58	47	41	39	39	37	34	33	28
23	73	59	48	42	40	39	38	34	33	28
24	73	59	49	43	41	41	39	34	34	29
25	75	61	50	44	42	42	40	35	35	30
26	76	62	51	45	43	43	41	36	36	31
27	76	63	52	46	43	43	41	37	36	31
28	77	63	53	47	44	44	42	38	37	32
29	78	65	54	48	46	45	44	39	38	33
30	79	66	55	49	47	46	45	40	39	34
31	80	67	56	49	47	47	45	40	39	34
32	80	67	57	51	48	48	46	41	40	35
33	81	68	58	52	50	49	48	43	42	36
34	82	70	59	53	51	50	49	44	43	37
35	83	70	60	54	51	51	49	44	43	38
36	83	71	61	55	52	52	50	45	44	38
37	83	71	62	56	54	53	52	46	46	40
38	85	73	63	57	55	54	53	47	47	41
39	85	74	64	58	55	55	53	48	47	41
40	86	74	65	59	56	56	54	49	48	42
41	86	75	66	60	57	57	56	50	49	44
42	87	76	67	61	59	58	57	51	51	45
43	87	77	68	62	59	59	57	52	51	45
44	87	78	69	63	60	59	58	53	52	46

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.19. Grade 2 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
45	88	78	70	64	61	61	59	54	53	47
46	88	79	70	65	63	62	61	55	55	49
47	89	80	71	66	63	63	61	56	55	49
48	89	80	72	66	64	63	62	56	56	50
49	90	81	73	67	65	64	63	57	57	51
50	90	82	74	69	66	66	65	59	59	52
51	91	82	75	69	67	66	65	60	59	53
52	91	83	75	70	67	67	66	60	60	54
53	91	84	76	71	68	68	67	61	61	54
54	92	84	77	72	70	69	68	62	62	56
55	92	85	78	73	71	70	69	63	63	57
56	93	85	79	74	71	71	70	64	64	58
57	93	86	79	74	72	71	70	64	65	58
58	93	86	80	75	73	72	71	66	66	60
59	94	87	80	76	74	73	72	67	67	61
60	94	87	81	77	74	74	73	68	68	62
61	94	88	82	77	75	75	74	68	68	62
62	94	88	83	78	76	75	74	69	69	63
63	95	89	83	79	77	76	75	70	71	64
64	95	89	84	80	78	77	76	71	72	65
65	95	90	85	81	78	78	77	71	72	66
66	95	90	85	82	79	79	77	72	73	67
67	95	90	86	82	80	79	78	73	74	68
68	96	91	86	83	81	80	79	74	75	69
69	96	91	87	84	81	81	80	75	76	70
70	96	92	87	84	82	81	80	75	76	70
71	96	92	88	85	82	82	81	76	77	71
72	96	92	88	85	83	82	82	77	78	72
73	97	93	89	86	84	83	83	78	78	73
74	97	93	89	87	84	84	83	78	79	74
75	97	93	90	87	85	84	84	79	80	74
76	97	93	90	88	85	85	84	80	81	75
77	97	94	90	88	86	85	85	80	81	76
78	97	94	91	89	86	86	85	81	82	77
79	98	94	91	89	87	87	86	81	82	78
80	98	94	92	90	88	87	87	82	83	78
81	98	95	92	90	88	88	87	83	84	79
82	98	95	93	91	89	88	88	83	84	80
83	98	95	93	91	89	89	88	84	85	80
84	98	95	93	91	89	89	89	85	85	81
85	98	95	93	92	90	90	89	85	86	82
86	98	96	94	92	90	90	89	85	86	82
87	98	96	94	93	90	90	90	86	87	83
88	98	96	94	93	91	91	90	87	87	84
89	99	96	95	93	91	91	91	87	88	84
90	99	96	95	93	92	91	91	87	88	85
91	99	96	95	94	92	92	91	88	89	85

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.19. Grade 2 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
92	99	97	95	94	92	92	92	89	89	86
93	99	97	96	94	93	93	92	89	89	86
94	99	97	96	94	93	93	92	89	90	87
95	99	97	96	95	93	93	93	90	90	87
96	99	97	96	95	94	93	93	90	91	88
97	99	97	96	95	94	94	93	90	91	88
98	99	97	97	96	94	94	94	91	91	88
99	99	98	97	96	94	94	94	91	92	89
100	99	98	97	96	95	95	94	92	92	89
101	99	98	97	96	95	95	94	92	92	90
102	99	98	97	96	95	95	95	92	93	90
103	99	98	97	97	95	95	95	93	93	91
104	99	98	98	97	96	96	95	93	93	91
105	99	98	98	97	96	96	95	93	93	91
106	99	98	98	97	96	96	96	93	94	91
107	99	98	98	97	96	96	96	94	94	92
108	99	98	98	97	96	96	96	94	94	92
109	99	99	98	98	96	96	96	94	94	92
110	99	99	98	98	97	97	96	94	95	93
111	99	99	98	98	97	97	96	95	95	93
112	99	99	98	98	97	97	97	95	95	93
113	99	99	98	98	97	97	97	95	95	94
114	99	99	99	98	97	97	97	95	96	94
115	99	99	99	98	97	97	97	96	96	94
116	99	99	99	98	97	97	97	96	96	94
117	99	99	99	98	97	98	97	96	96	95
118	99	99	99	98	97	98	97	96	96	95
119	99	99	99	99	98	98	98	96	96	95
120	99	99	99	99	98	98	98	96	96	95
121	99	99	99	99	98	98	98	97	97	95
122	99	99	99	99	98	98	98	97	97	96
123	99	99	99	99	98	98	98	97	97	96
124	99	99	99	99	98	98	98	97	97	96
125	99	99	99	99	98	98	98	97	97	96
126	99	99	99	99	98	98	98	97	97	96
127	99	99	99	99	98	99	98	97	97	96
128	99	99	99	99	98	99	98	98	98	97
129	99	99	99	99	98	99	99	98	98	97
130	99	99	99	99	99	99	99	98	98	97
131	99	99	99	99	99	99	99	98	98	97
132	99	99	99	99	99	99	99	98	98	97

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.20. ISIP Early Reading Norming Table for Grade 3
Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
0	18	11	13	11	11	9	10	9	10	9
1	20	12	14	12	12	11	11	10	11	10
2	21	13	15	13	13	11	12	11	11	11
3	22	14	16	14	14	12	13	11	12	12
4	23	15	17	14	14	13	14	12	13	12
5	24	15	17	15	15	13	14	13	13	13
6	25	16	18	16	16	14	15	13	14	13
7	26	16	18	16	16	14	15	14	15	14
8	27	17	19	17	17	15	16	14	15	14
9	28	18	20	17	17	15	17	15	16	15
10	29	18	20	18	18	16	17	15	16	15
11	30	18	21	18	18	16	18	16	16	16
12	30	19	21	19	19	17	18	16	17	16
13	31	20	22	20	19	17	19	17	18	17
14	32	20	22	20	20	18	19	17	18	17
15	32	20	23	20	20	18	20	17	18	17
16	33	21	23	21	21	19	20	18	19	18
17	34	22	24	22	22	19	21	19	19	18
18	35	22	25	23	22	20	21	19	20	19
19	36	22	25	23	22	20	22	19	20	19
20	36	23	25	23	23	20	22	20	21	20
21	37	24	26	24	24	21	23	21	21	20
22	38	25	27	25	24	22	24	21	22	21
23	39	25	28	26	25	22	24	22	22	21
24	39	25	28	26	25	23	25	22	23	22
25	40	26	29	27	26	24	26	23	23	22
26	42	28	30	28	27	24	26	23	24	23
27	43	28	31	29	27	25	27	24	24	23
28	43	28	31	29	28	25	27	24	25	24
29	44	29	32	30	29	26	29	25	26	25
30	46	30	33	31	30	27	29	26	27	25
31	46	31	34	32	30	28	30	27	27	26
32	47	31	34	33	31	29	31	27	28	26
33	48	32	35	34	33	30	32	28	29	27
34	50	34	37	35	34	31	33	29	30	28
35	51	34	37	36	34	31	33	30	30	29
36	51	35	38	36	35	32	34	30	31	29
37	52	35	38	37	36	33	35	32	32	30
38	54	37	40	39	37	34	36	32	33	31
39	55	38	41	39	38	35	37	33	33	32
40	55	38	42	40	39	36	37	34	34	32
41	55	39	42	41	40	37	39	35	35	33
42	56	40	43	42	41	38	40	36	36	34
43	58	42	45	43	42	39	41	37	37	35
44	58	42	46	44	43	40	41	37	38	36

Table A.20. Grade 3 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
45	59	43	46	45	44	41	42	38	39	36
46	60	44	47	46	45	42	44	39	40	38
47	61	45	48	47	46	43	44	40	40	38
48	62	46	50	48	47	43	45	41	41	39
49	62	47	50	49	48	45	46	42	42	40
50	64	48	51	50	49	46	48	43	44	41
51	64	49	52	51	50	47	49	44	44	42
52	65	50	53	52	50	47	49	45	45	43
53	65	51	54	53	52	49	50	46	46	44
54	67	52	55	54	54	50	52	47	47	45
55	68	53	56	55	54	51	53	48	48	46
56	69	54	57	55	55	52	54	49	49	46
57	70	56	58	56	56	53	54	50	50	47
58	70	56	59	58	57	54	56	51	51	48
59	72	58	60	59	58	56	57	52	52	49
60	73	59	61	59	59	56	58	53	53	50
61	73	60	62	60	60	57	59	54	54	51
62	74	60	63	61	61	58	60	55	55	52
63	75	61	64	62	62	60	61	56	56	53
64	77	63	65	63	63	61	62	57	57	54
65	77	63	66	64	64	61	63	58	57	55
66	77	64	66	64	65	62	64	59	58	56
67	78	65	67	66	66	63	65	60	59	57
68	80	68	69	67	67	65	66	61	60	58
69	80	68	69	67	67	65	67	62	61	59
70	81	69	70	68	68	67	68	63	62	60
71	81	69	70	69	69	67	69	64	63	60
72	82	70	72	70	71	69	70	65	64	61
73	83	71	73	71	71	70	70	66	65	62
74	84	72	73	71	72	70	71	67	66	63
75	84	72	74	72	73	71	72	68	66	64
76	84	73	74	72	73	72	73	69	68	65
77	85	74	75	73	74	73	73	69	68	66
78	85	75	76	74	75	74	74	70	69	67
79	86	76	77	74	76	75	75	71	70	67
80	86	76	77	75	76	75	76	72	71	68
81	87	77	78	76	77	76	77	73	72	69
82	87	77	78	77	78	77	78	74	73	70
83	87	78	79	77	79	78	78	74	73	71
84	88	79	80	78	79	78	79	75	74	72
85	89	80	80	78	80	79	80	76	75	72
86	89	80	81	79	81	80	80	76	75	73
87	90	81	82	80	81	80	81	77	76	74
88	90	82	82	80	82	81	81	78	77	75
89	90	82	83	81	82	81	82	78	77	75
90	92	83	83	81	83	82	83	79	78	76
91	92	84	84	82	83	83	83	79	79	77

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.20. Grade 3 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
92	92	84	84	82	84	83	84	80	79	78
93	92	84	85	83	85	84	84	81	80	78
94	92	85	86	84	85	85	85	81	81	79
95	93	86	86	84	85	85	85	82	81	80
96	94	87	87	85	86	85	86	82	82	80
97	94	87	87	85	86	86	86	83	82	81
98	94	87	87	85	87	86	87	83	83	82
99	94	88	88	86	87	87	87	84	83	82
100	95	88	88	86	88	87	88	84	84	83
101	95	89	89	87	88	88	88	85	84	83
102	95	89	89	87	89	88	88	85	85	84
103	95	89	90	88	89	89	89	86	85	84
104	96	90	90	88	90	89	89	86	86	85
105	96	90	90	88	90	90	90	87	86	85
106	96	91	91	89	90	90	90	87	87	86
107	96	91	91	89	90	90	91	88	87	86
108	97	92	91	89	91	91	91	88	88	87
109	97	92	92	90	91	91	91	88	88	87
110	97	92	92	90	91	91	92	89	88	88
111	97	92	92	90	92	92	92	89	89	88
112	97	92	92	91	92	92	92	89	89	88
113	97	93	92	91	92	92	93	90	89	89
114	97	93	93	92	93	93	93	90	90	89
115	97	93	93	92	93	93	93	91	90	89
116	97	93	93	92	93	93	93	91	90	90
117	98	94	94	92	94	93	94	91	90	90
118	98	94	94	93	94	94	94	91	91	91
119	98	94	94	93	94	94	94	92	91	91
120	98	94	94	93	94	94	95	92	92	91
121	98	95	95	93	95	94	95	92	92	92
122	98	95	95	94	95	95	95	93	92	92
123	98	95	95	94	95	95	95	93	92	92
124	99	95	95	94	95	95	96	93	93	92
125	99	96	96	94	95	95	96	93	93	93
126	99	96	96	95	96	95	96	94	93	93
127	99	96	96	95	96	96	96	94	93	93
128	99	96	96	95	96	96	96	94	94	93
129	99	97	96	95	96	96	96	94	94	94
130	99	97	96	96	96	96	97	94	94	94
131	99	97	97	96	97	96	97	95	94	94
132	99	97	97	96	97	96	97	95	94	94
133	99	97	97	96	97	97	97	95	95	94
134	99	97	97	96	97	97	97	95	95	95
135	99	97	97	97	97	97	97	95	95	95
136	99	98	97	97	97	97	97	96	95	95
137	99	98	798	97	97	97	97	96	96	95
138	99	98	98	97	98	97	98	96	96	95

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.20. Grade 3 Text Fluency Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
139	99	98	98	97	98	97	98	96	96	96
140	99	98	98	97	98	98	98	96	96	96
141	99	98	98	97	98	98	98	97	96	96
142	99	98	98	97	98	98	98	97	96	96
143	99	98	98	97	98	98	98	97	96	96
144	99	98	98	98	98	98	98	97	96	96
145	99	98	98	98	98	98	98	97	97	97
146	99	99	98	98	98	98	98	97	97	97
147	99	99	98	98	98	98	98	97	97	97
148	99	99	99	98	98	98	99	97	97	97
149	99	99	99	98	99	98	99	97	97	97
150	99	99	99	98	99	98	99	98	97	97

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.21. ISIP Early Reading Norming Table for Kindergarten
Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
138	1	1	1	1	1	1	1	1	1	1
139	2	1	1	1	1	1	1	1	1	1
140	2	1	1	1	1	1	1	1	1	1
141	2	1	1	1	1	1	1	1	1	1
142	2	1	1	1	1	1	1	1	1	1
143	2	1	1	1	1	1	1	1	1	1
144	2	2	2	1	1	1	1	1	1	1
145	2	2	2	2	1	1	1	1	1	1
146	2	2	2	2	2	1	1	1	1	1
147	2	2	2	2	2	2	1	1	1	1
148	2	2	2	2	2	2	1	1	1	1
149	2	2	2	2	2	2	1	1	1	1
150	2	2	2	2	2	2	1	1	1	1
151	2	2	2	2	2	2	1	1	1	1
152	2	2	2	2	2	2	2	1	1	1
153	2	2	3	2	2	2	2	2	1	1
154	2	2	3	2	2	2	2	2	1	1
155	2	2	3	2	2	2	2	2	1	1
156	3	2	3	3	2	2	2	2	1	1
157	3	3	3	3	3	2	2	2	2	1
158	3	3	3	3	3	2	2	2	2	1
159	3	3	4	3	3	3	2	2	2	1
160	3	3	4	3	3	3	2	2	2	2
161	4	3	4	3	3	3	3	2	2	2
162	4	4	5	4	4	3	3	2	2	2
163	4	4	5	4	4	3	3	3	2	2
164	4	4	5	4	4	3	3	3	2	2
165	4	4	6	4	5	4	3	3	3	2
166	5	5	6	5	5	4	4	3	3	2
167	5	5	7	5	5	4	4	3	3	2
168	5	5	8	6	6	5	5	4	4	3
169	6	6	9	6	7	5	5	4	4	3
170	7	7	10	7	8	6	6	5	4	3
171	8	8	11	8	9	7	7	5	5	4
172	10	11	12	9	9	8	7	6	5	4
173	11	11	13	10	10	9	8	7	6	5
174	12	12	14	11	11	9	9	7	7	5
175	13	13	15	13	13	11	10	8	7	6
176	16	17	17	15	14	12	11	9	8	7
177	20	19	18	17	15	14	12	10	9	7
178	23	23	19	18	16	15	13	12	10	8
179	25	25	22	19	17	17	14	13	11	9
180	27	27	24	21	18	18	16	14	12	10
181	28	28	26	23	19	19	17	15	13	11
182	31	30	27	25	22	19	18	16	14	11
183	33	32	29	26	24	21	18	17	15	12

Table A.21. Kindergarten Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
184	34	34	30	27	25	23	19	18	15	13
185	36	35	31	29	26	24	21	18	16	14
186	40	37	34	31	28	25	22	20	18	15
187	41	39	36	33	30	27	24	21	19	16
188	43	42	38	35	31	29	25	23	20	17
189	44	45	41	37	34	31	27	24	22	19
190	47	48	44	39	36	33	30	26	24	20
191	51	51	47	43	39	36	32	29	26	22
192	55	55	51	46	43	39	35	31	29	25
193	59	59	55	49	46	42	38	34	31	27
194	63	62	59	53	50	45	41	37	34	30
195	67	66	63	57	53	48	45	40	37	32
196	71	70	66	60	57	52	48	43	40	35
197	75	74	71	65	61	56	52	47	44	39
198	78	78	75	69	65	60	56	51	48	42
199	82	82	79	73	69	63	60	54	51	46
200	84	84	81	75	71	66	62	57	54	48
201	85	85	82	76	73	68	64	59	56	50
202	86	86	84	78	74	69	66	60	57	52
203	87	87	85	79	76	71	68	62	59	54
204	88	88	86	81	77	73	69	64	61	56
205	89	89	87	82	79	74	71	66	63	57
206	90	90	88	83	80	76	73	68	65	59
207	91	91	89	85	82	77	74	69	67	61
208	91	92	90	86	83	79	76	71	68	63
209	92	93	91	87	84	80	77	73	70	65
210	92	93	92	88	86	82	79	74	72	67
211	93	94	93	89	87	83	80	76	74	69
212	94	95	94	90	88	84	82	78	76	71
213	95	95	94	91	89	85	83	79	77	73
214	95	96	95	92	90	86	84	81	79	75
215	96	96	95	93	91	88	86	82	80	76
216	96	97	96	93	92	89	87	84	82	78
217	96	97	96	94	92	90	88	85	83	80
218	96	97	97	94	93	91	89	86	85	81
219	97	98	97	95	94	91	90	87	86	83
220	97	98	97	96	94	92	91	88	87	84
221	97	98	98	96	95	93	92	89	88	85
222	97	99	98	97	95	94	92	90	89	86
223	97	99	98	97	96	94	93	91	90	88
224	98	99	98	97	96	95	94	92	91	89
225	98	99	99	98	97	96	94	93	92	90
226	98	99	99	98	97	96	95	94	93	91
227	99	99	99	98	97	97	96	94	93	92
228	99	99	99	98	98	97	96	95	94	93
229	99	99	99	99	98	97	96	95	95	93
230	99	99	99	99	98	98	97	96	95	94

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.21. Kindergarten Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
231	99	99	99	99	98	98	97	96	96	95
232	99	99	99	99	99	98	97	97	96	95
233	99	99	99	99	99	98	98	97	96	96
234	99	99	99	99	99	99	98	97	97	96
235	99	99	99	99	99	99	98	98	97	97
236	99	99	99	99	99	99	98	98	97	97
237	99	99	99	99	99	99	99	98	98	97
238	99	99	99	99	99	99	99	98	98	98
239	99	99	99	99	99	99	99	99	98	98
240	99	99	99	99	99	99	99	99	98	98
241	99	99	99	99	99	99	99	99	99	98
242	99	99	99	99	99	99	99	99	99	98
243	99	99	99	99	99	99	99	99	99	99

Table A.22. ISIP Early Reading Norming Table for Grade 1
Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
169	1	1	1	1	1	1	1	1	1	1
170	2	2	2	2	2	2	2	2	1	1
171	2	2	2	2	2	2	2	2	1	1
172	3	2	4	3	3	3	2	2	2	1
173	3	3	4	3	3	3	3	2	2	2
174	3	3	4	4	4	3	3	3	3	2
175	4	3	5	4	4	4	3	3	3	2
176	5	4	6	5	4	4	4	3	3	3
177	6	5	6	5	5	4	4	4	4	3
178	7	6	7	6	5	5	4	4	4	3
179	8	7	8	7	6	6	5	4	4	4
180	8	7	8	7	7	6	5	5	5	4
181	9	8	9	8	7	7	6	5	5	4
182	10	9	10	9	8	7	6	6	5	5
183	12	10	10	9	9	8	7	6	6	5
184	12	11	11	10	9	8	7	7	6	5
185	13	12	12	11	10	9	8	7	7	6
186	14	13	13	12	11	9	8	8	7	6
187	15	14	14	12	11	10	9	8	8	7
188	17	15	15	14	12	11	10	9	8	7
189	18	17	17	15	14	12	11	10	9	8
190	19	19	18	16	15	13	12	10	10	8
191	22	20	19	17	16	14	13	11	11	9
192	25	23	22	19	18	16	14	13	12	10
193	28	25	25	21	19	17	16	14	13	11
194	31	28	27	23	22	19	17	15	14	12
195	33	30	29	26	24	21	19	17	16	14
196	37	33	32	28	26	23	21	19	17	15
197	39	36	36	31	29	25	23	20	19	17
198	44	39	39	34	31	27	25	23	21	18
199	48	43	42	37	34	30	28	25	23	19
200	51	46	45	39	36	32	29	26	25	21
201	53	48	46	40	38	33	31	27	26	22
202	54	49	48	42	39	34	32	29	27	23
203	56	51	50	44	41	36	33	30	28	24
204	58	53	52	46	43	38	35	31	30	25
205	60	55	54	47	45	39	36	33	31	27
206	62	57	56	49	47	41	38	35	33	28
207	64	59	58	51	48	43	40	36	34	30
208	66	61	60	53	51	45	42	38	36	31
209	68	63	62	55	53	47	44	39	38	33
210	70	65	64	57	55	49	46	42	39	35
211	72	67	66	60	57	51	48	44	42	37
212	73	69	68	62	59	53	50	46	44	39
213	75	72	70	64	61	55	52	48	46	41

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.22. Grade 1 Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
214	77	73	72	66	63	57	54	50	48	43
215	79	76	74	68	65	59	57	52	50	45
216	81	77	76	70	67	61	59	54	52	47
217	83	79	77	72	69	64	61	56	54	49
218	84	81	79	74	71	66	63	58	56	51
219	86	83	81	75	73	68	65	60	58	53
220	87	84	82	77	74	70	67	62	60	55
221	89	86	83	79	76	72	69	65	62	57
222	90	87	85	81	78	73	71	67	64	59
223	91	89	86	82	79	75	73	69	66	62
224	92	90	87	84	81	77	74	71	68	64
225	93	91	88	85	82	79	76	73	70	66
226	94	92	89	86	84	81	78	75	72	68
227	94	93	90	88	85	82	80	76	74	70
228	95	94	91	89	86	84	81	78	76	72
229	96	95	92	90	87	85	83	80	77	74
230	96	96	93	91	88	86	84	81	79	75
231	97	96	93	92	89	88	85	83	80	77
232	97	97	94	93	90	89	86	84	82	79
233	98	97	95	93	91	90	87	85	83	80
234	98	98	95	94	92	91	88	87	84	82
235	98	98	96	95	93	92	89	88	85	83
236	98	98	96	95	93	92	90	89	87	84
237	99	98	97	96	94	93	91	90	88	85
238	99	99	97	96	95	94	92	91	89	87
239	99	99	97	97	95	94	93	91	90	88
240	99	99	98	97	96	95	93	92	90	89
241	99	99	98	97	96	95	94	93	91	90
242	99	99	98	98	97	96	94	94	92	90
243	99	99	98	98	97	96	95	94	93	91
244	99	99	99	98	97	97	96	95	93	92
245	99	99	99	98	97	97	96	95	94	93
246	99	99	99	99	98	97	96	96	95	93
247	99	99	99	99	98	98	97	96	95	94
248	99	99	99	99	98	98	97	97	96	94
249	99	99	99	99	98	98	97	97	96	95
250	99	99	99	99	99	98	98	97	96	95
251	99	99	99	99	99	98	98	97	97	96
252	99	99	99	99	99	99	98	98	97	96
253	99	99	99	99	99	99	98	98	97	97
254	99	99	99	99	99	99	99	98	98	97
255	99	99	99	99	99	99	99	98	98	97
256	99	99	99	99	99	99	99	98	98	97
257	99	99	99	99	99	99	99	99	98	98
258	99	99	99	99	99	99	99	99	98	98
259	99	99	99	99	99	99	99	99	99	98
260	99	99	99	99	99	99	99	99	99	98

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.22. Grade 1 Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
261	99	99	99	99	99	99	99	99	99	98
262	99	99	99	99	99	99	99	99	99	98
263	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.23. ISIP Early Reading Norming Table for Grade 2
Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
179	1	1	1	1	1	1	1	1	1	1
180	2	2	2	2	1	1	1	1	1	1
181	2	2	2	2	2	2	2	1	1	1
182	2	2	3	2	2	2	2	2	1	1
183	3	2	3	3	2	2	2	2	2	1
184	3	3	3	3	3	2	2	2	2	2
185	4	3	4	3	3	2	2	2	2	2
186	4	3	4	3	3	3	2	2	2	2
187	5	4	4	4	3	3	3	2	2	2
188	5	4	5	4	4	3	3	3	3	2
189	5	5	5	4	4	3	3	3	3	2
190	6	5	5	5	4	4	3	3	3	3
191	7	6	6	5	5	4	4	3	3	3
192	7	6	6	5	5	4	4	4	4	3
193	8	7	7	6	5	4	4	4	4	3
194	9	7	7	6	6	5	4	4	4	3
195	10	8	8	7	6	5	5	4	4	4
196	11	8	8	7	6	5	5	5	5	4
197	12	9	9	8	7	6	5	5	5	4
198	13	9	10	8	7	6	6	5	5	4
199	13	10	10	8	8	6	6	6	5	4
200	15	11	11	9	8	7	6	6	6	5
201	17	12	13	10	9	8	7	7	7	5
202	18	14	14	12	11	9	8	8	7	6
203	19	15	16	13	12	10	9	8	8	7
204	22	17	18	14	13	11	10	9	9	7
205	25	19	19	16	14	12	11	10	10	8
206	28	21	21	17	16	13	12	11	11	9
207	30	23	23	19	17	14	13	12	12	10
208	32	25	25	21	19	16	15	14	13	11
209	35	27	27	22	20	17	16	15	14	12
210	36	28	28	24	22	18	17	16	15	13
211	39	30	31	25	23	19	18	17	16	14
212	41	33	32	27	25	21	19	18	17	14
213	43	35	34	29	27	23	21	19	18	15
214	44	36	36	30	28	24	23	21	19	16
215	46	38	37	32	30	26	24	22	21	17
216	49	41	39	34	32	27	25	23	22	18
217	51	42	42	36	34	29	27	25	24	19
218	53	45	44	37	36	31	29	26	25	21
219	55	47	46	39	38	33	31	28	27	23
220	57	49	48	42	39	35	33	30	28	24
221	61	52	50	44	42	37	35	32	30	26
222	63	54	52	47	44	39	37	34	32	28
223	65	57	55	49	46	41	39	36	34	30

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.23. Grade 2 Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
224	68	60	58	52	49	44	42	38	37	32
225	71	63	60	54	51	46	44	40	38	34
226	73	65	62	56	54	48	46	42	40	35
227	75	68	64	59	56	51	48	45	42	38
228	78	70	66	61	58	53	50	47	44	39
229	80	72	68	63	60	55	52	49	46	42
230	81	75	70	65	62	57	54	51	48	44
231	84	77	72	67	64	59	57	53	50	46
232	85	79	74	69	66	61	59	55	52	48
233	86	81	76	71	68	64	61	57	54	49
234	88	82	77	73	70	66	63	59	56	52
235	89	84	79	75	72	68	65	61	58	53
236	90	85	81	77	74	70	67	64	60	55
237	91	87	82	79	76	71	69	66	62	58
238	92	88	83	80	77	73	70	67	64	59
239	93	90	85	82	79	75	72	69	66	62
240	93	91	86	83	80	77	74	71	68	64
241	95	92	87	84	81	78	75	73	70	65
242	95	93	88	86	83	80	77	74	71	67
243	95	93	89	87	84	81	78	76	73	69
244	96	94	90	88	85	82	80	77	75	71
245	96	95	91	89	86	84	81	79	76	72
246	97	95	92	90	87	85	82	80	78	74
247	97	96	93	91	89	86	84	82	79	75
248	97	96	94	92	89	87	85	83	80	77
249	98	97	95	92	90	88	86	84	82	78
250	98	97	95	93	91	89	87	85	83	79
251	98	97	96	93	92	90	88	86	84	81
252	98	97	96	94	93	90	89	87	85	82
253	98	98	96	94	93	91	90	88	86	83
254	98	98	97	95	94	92	91	88	87	84
255	99	98	97	95	94	92	91	89	88	84
256	99	98	97	96	95	93	92	90	88	85
257	99	98	98	96	95	93	92	91	89	86
258	99	99	98	96	95	94	93	91	90	87
259	99	99	98	97	96	94	93	92	90	87
260	99	99	98	97	96	95	94	92	91	88
261	99	99	98	97	96	95	94	93	92	89
262	99	99	99	97	97	95	95	93	92	90
263	99	99	99	98	97	96	95	94	93	90
264	99	99	99	98	97	96	96	94	93	91
265	99	99	99	98	98	96	96	95	94	92
266	99	99	99	98	98	97	96	95	94	92
267	99	99	99	98	98	97	97	95	95	93
268	99	99	99	99	98	97	97	96	95	93
269	99	99	99	99	98	97	97	96	95	94
270	99	99	99	99	99	98	97	96	96	94

972.643.3440 • fax: 972.643.3441 • www.istation.com

Table A.23. Grade 2 Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
271	99	99	99	99	99	98	98	97	96	94
272	99	99	99	99	99	98	98	97	96	95
273	99	99	99	99	99	98	98	97	96	95
274	99	99	99	99	99	98	98	97	97	95
275	99	99	99	99	99	98	98	97	97	96
276	99	99	99	99	99	99	98	98	97	96
277	99	99	99	99	99	99	98	98	97	96
278	99	99	99	99	99	99	99	98	98	96
279	99	99	99	99	99	99	99	98	98	97
280	99	99	99	99	99	99	99	98	98	97
281	99	99	99	99	99	99	99	98	98	97
282	99	99	99	99	99	99	99	98	98	97
283	99	99	99	99	99	99	99	99	98	98
284	99	99	99	99	99	99	99	99	98	98
285	99	99	99	99	99	99	99	99	99	98
286	99	99	99	99	99	99	99	99	99	98
287	99	99	99	99	99	99	99	99	99	98
288	99	99	99	99	99	99	99	99	99	98
289	99	99	99	99	99	99	99	99	99	98
290	99	99	99	99	99	99	99	99	99	99

Table A.24. ISIP Early Reading Norming Table for Grade 3
Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
181	1	1	1	1	1	1	1	1	1	1
182	2	1	1	1	1	1	1	1	1	1
183	2	1	2	1	1	1	1	1	1	1
184	2	2	2	2	2	1	1	1	2	1
185	2	2	2	2	2	1	2	2	2	1
186	2	2	2	2	2	2	2	2	2	2
187	2	2	2	2	2	2	2	2	2	2
188	3	2	2	2	2	2	2	2	2	2
189	3	2	3	2	2	2	2	2	2	2
190	3	2	3	2	2	2	2	2	2	2
191	3	3	3	3	3	2	2	2	2	2
192	4	3	3	3	3	2	2	2	2	2
193	4	3	4	3	3	2	3	3	3	2
194	4	3	4	3	3	3	3	3	3	2
195	5	3	4	3	3	3	3	3	3	3
196	5	4	4	3	3	3	3	3	3	3
197	5	4	4	4	4	3	3	3	3	3
198	5	4	5	4	4	3	3	3	3	3
199	5	4	5	4	4	3	3	3	3	3
200	6	4	5	4	4	4	4	4	4	3
201	7	5	6	5	5	4	4	4	4	4
202	8	6	7	5	5	4	5	4	4	4
203	8	6	7	6	6	5	5	5	5	4
204	10	7	8	7	6	5	6	5	5	5
205	11	8	9	7	7	6	6	6	6	5
206	12	10	9	8	7	6	6	6	6	6
207	12	10	10	9	8	7	7	6	7	6
208	13	11	11	9	9	7	8	7	7	7
209	15	12	12	10	9	8	8	7	8	7
210	15	13	13	11	10	9	9	8	8	7
211	17	15	14	11	11	9	10	8	9	8
212	18	16	15	12	12	10	10	9	9	8
213	19	18	16	13	13	11	11	10	10	9
214	20	19	17	14	14	11	12	10	10	9
215	22	20	18	15	14	12	12	11	11	10
216	24	21	19	16	15	13	13	11	12	10
217	26	22	21	17	16	14	14	12	12	11
218	27	23	22	18	17	15	15	13	13	12
219	29	24	24	19	18	16	16	14	14	13
220	31	25	25	21	19	17	17	15	15	13
221	33	26	27	22	22	18	18	16	16	14
222	35	27	29	24	23	19	19	17	17	15
223	37	28	31	26	25	21	21	18	18	16
224	40	31	33	28	27	23	23	19	19	17
225	42	33	35	29	28	24	24	21	21	18

Table A.24. Grade 3 Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
226	44	35	37	31	30	26	26	22	22	19
227	47	40	39	33	32	28	28	24	24	21
228	49	42	41	35	34	29	29	25	25	22
229	50	44	43	37	36	31	31	27	26	24
230	53	47	45	39	37	33	33	29	28	25
231	56	49	48	41	39	35	35	30	29	26
232	58	51	50	43	41	37	37	32	31	28
233	60	52	52	45	43	38	38	34	33	29
234	62	55	54	48	46	40	40	35	35	31
235	64	57	56	49	48	42	42	37	36	32
236	66	59	59	52	50	44	44	39	38	34
237	69	62	61	54	52	46	46	41	39	36
238	71	64	62	56	54	48	48	42	41	38
239	73	67	65	58	56	50	50	45	44	39
240	75	69	67	60	58	52	52	47	45	41
241	76	70	68	62	60	54	54	48	47	43
242	78	72	70	64	61	56	56	50	49	45
243	80	74	72	66	63	58	58	52	51	46
244	81	76	73	67	65	60	59	54	52	48
245	82	77	74	69	67	61	61	56	54	50
246	83	78	76	71	68	63	63	57	56	51
247	85	79	78	72	70	65	64	59	58	53
248	86	81	79	74	72	66	66	61	59	55
249	87	82	80	75	73	68	68	62	61	56
250	88	83	82	76	75	69	69	64	62	58
251	88	83	83	78	76	71	71	65	64	60
252	89	84	84	79	77	72	72	67	65	61
253	89	86	85	80	78	73	73	68	67	62
254	90	86	86	81	79	74	74	69	68	64
255	91	87	87	82	80	75	75	70	69	65
256	91	88	88	83	81	77	77	72	70	66
257	92	88	88	84	82	78	78	73	71	67
258	92	89	89	84	83	79	79	74	72	68
259	93	90	90	85	84	80	80	75	74	69
260	93	90	91	86	85	81	81	76	75	71
261	94	91	91	87	86	81	82	77	76	72
262	94	92	92	88	87	82	83	78	77	73
263	95	92	93	89	88	83	84	79	78	74
264	95	93	93	89	88	84	85	80	79	75
265	96	93	94	90	89	85	86	81	80	76
266	96	94	94	91	90	86	86	82	81	77
267	97	95	95	91	90	87	87	83	82	78
268	97	95	95	92	91	87	88	84	83	80
269	98	96	96	93	92	88	89	85	84	80
270	98	96	96	93	92	89	89	86	85	81
271	98	96	96	93	93	89	90	86	86	82
272	98	97	97	94	93	90	90	87	86	83

Table A.24. Grade 3 Vocabulary Scores

Score	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
273	98	98	97	94	94	91	91	88	87	84
274	98	98	97	95	94	91	91	88	88	84
275	99	98	97	95	94	92	92	89	88	85
276	99	98	98	95	95	92	92	90	89	86
277	99	98	98	96	95	93	93	90	90	87
278	99	98	98	96	96	93	93	91	90	87
279	99	98	98	96	96	93	94	91	91	88
280	99	99	98	97	96	94	94	92	91	89
281	99	99	98	97	96	94	94	92	92	89
282	99	99	98	97	97	94	95	93	92	90
283	99	99	99	97	97	95	95	93	92	90
284	99	99	99	97	97	95	95	93	93	91
285	99	99	99	98	97	95	96	94	93	91
286	99	99	99	98	97	96	96	94	93	92
287	99	99	99	98	98	96	96	94	94	92
288	99	99	99	98	98	96	96	95	94	93
289	99	99	99	98	98	97	97	95	94	93
290	99	99	99	98	98	97	97	95	95	93
291	99	99	99	99	98	97	97	96	95	94
292	99	99	99	99	98	97	97	96	95	94
293	99	99	99	99	98	97	97	96	96	95
294	99	99	99	99	99	98	98	97	96	95
295	99	99	99	99	99	98	98	97	96	95
296	99	99	99	99	99	98	98	97	97	96
297	99	99	99	99	99	98	98	97	97	96
298	99	99	99	99	99	98	98	97	97	96
299	99	99	99	99	99	98	99	98	98	97
300	99	99	99	99	99	99	99	98	98	97
301	99	99	99	99	99	99	99	98	98	97
302	99	99	99	99	99	99	99	98	98	97
303	99	99	99	99	99	99	99	98	98	98
304	99	99	99	99	99	99	99	99	99	98
305	99	99	99	99	99	99	99	99	99	98
306	99	99	99	99	99	99	99	99	99	98
307	99	99	99	99	99	99	99	99	99	98
308	99	99	99	99	99	99	99	99	99	98
309	99	99	99	99	99	99	99	99	99	99

972.643.3440 • fax: 972.643.3441 • www.istation.com