

Florida Center for Reading Research

istation

What is istation?

istation is an internet-based supplemental and intervention, reading program. The program is intended to be used to help prevent emerging readers from lagging behind and to supplement the Core reading program for Kindergarten through third grade students including Special Education, General Education, English Language Learners (ELL), and struggling readers. The goal of *istation* is to teach students to read fluently and with comprehension. There are three main components to *istation program*: individualized internet-based instruction using Infinity (Individually focused interactive instructional technology), ongoing assessment and reports, and data-driven teacher print resources to accompany the internet-based program. The frequency and duration of lessons with this internet-based program differ according to the purpose of instruction. For supplemental instruction, the recommendation is three thirty minute sessions per week, and the recommendation for intensive intervention instruction is four to five forty-five minute sessions per week.

Students are immediately assessed when they log onto *istation*, which places them at the appropriate starting point in the program. A key feature of this program is its ability to track the progress and adjust the instruction as the students move through the cycles. *istation's* ongoing continuous assessment has the capacity to analyze patterns of errors, identify strengths and weaknesses, and adapt the individualized instructional path; because of this each student may progress through the program's cycles or tiers of instruction at different paces. Teachers are provided with Web-based reports for each student using *istation*. There are four types of reports: the Priority Report, the Progress Report, the Skills Report, and the Usage Report. The Priority Report generates a listing of students who are struggling and in need of teacher-directed intervention. This report identifies the area of weakness and provides a direct link to supplemental materials for teachers to use as intervention lessons. These lesson materials come with detailed lesson plans to assist teachers, paraprofessionals, or other professionals who may provide reading instruction to students. The Progress Report is organized by teaching cycle and provides an overview of all students' progress and time spent using *istation*. The Skills Report allows teachers to organize student information according to ability in phonemic awareness, phonics, fluency, vocabulary, comprehension, and book and print awareness. The Usage Report allows teachers to identify the amount of time each student is spending using *istation*.

istation includes a detailed scope and sequence that is divided into tiers of instruction called cycles. Each cycle addresses the five components of reading identified by the National Reading Panel (2000) as essential to effective instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Cycles also provide instruction in book and print awareness from concepts of print and basic punctuation rules to multiple uses of commas and quotation marks.



All teacher materials are available on the website. Teacher resources and student materials (i.e., lesson plans, flashcards, fluency passages, and copies of the

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decodable books) are organized by cycle on the website under teacher resources. This is also where reports are accessed. Information is well organized and easy to locate.

How is *istation* aligned with Reading First?

istation addresses the five important components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2000). The scope and sequence of skill instruction is systematic and explicit with multiple opportunities for students to observe models and then practice skills with corrective feedback. Songs and mnemonic devices are utilized throughout the program to assist in retention of new information. Phonological and phonemic awareness instruction begins with larger chunks of sound (sentences and alliteration) and moves to individual phonemes. Phonics instruction is synthetic with students receiving direct instruction in sound/symbol correspondences and then blending these combinations together to decode words (Armbruster, Lehr, & Osborne, 2001). Lesson plans, for teachers to use with students in need of extra support, provide detailed descriptions of information that should be presented to acquire mastery of difficult skills.

Research-based fluency strategies are utilized in *istation*. The internet-based program provides repeated readings and adult modeling of pausing and intonation. The additional teacher led lesson plans provide materials and practice opportunities with fluency building activities and passages designed to be read at instructional or independent reading levels. These materials are also used for teachers to track progress and provide corrective feedback (Kuhn & Stahl, 2003; Dowhower, 1987).

Vocabulary words and comprehension strategies are taught in each cycle of *istation* using the decodable and/or read aloud text as a basis for instruction. A large portion of the vocabulary words are high frequency reading words (e.g., they, here, my, for) or commonly used words (e.g., blanket, color words). However, the explicit instruction in affixes will support more extended vocabulary acquisition. Comprehension strategies such as monitoring comprehension, answering questions, recognizing story structure, summarizing, predicting, and drawing conclusions are addressed. Definitions of strategies are provided before a read aloud activity with text demonstrating the use of the newly introduced skill. The strategy is modeled for students and then students are provided the opportunity to answer questions on the same text using the new skill. The scaffolds in place at each cycle of *istation* are intended to help support student success.

Professional development is provided with single school and district implementation of *istation*. The specific training content is developed based on district needs as identified by *istation* and district personnel. The total number of hours of hands-on professional development and number of sessions varies according to need. The requests range from five to seven hours with as many as three sessions. The initial session includes: Getting Started, Using Student Data to Effect Instruction, and Managing Your *istation* Classroom. Subsequent sessions include: Data Consultation and Classroom Connections. In these sessions, participants learn how to use data to make informed decisions about classroom instruction. *istation* personnel provide additional support via telephone and email during the subscription period. The cost of the professional development is included in the subscription price. Districts have the option to arrange for more in-depth professional development if necessary.

Research Support for *istation*



During the 2003-2004 school year, nine kindergarten classrooms in the Chambersburg Area School District in Pennsylvania participated in a research project to examine the effectiveness of *istation*. This study was a collaboration between the Chambersburg Area School District and Shippensburg University. In the fall of 2003, baseline data were collected for 550 kindergarten students using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good & Kaminski, 2002). Students were assessed on the following measures: Letter Naming Fluency (LNF), Initial Sound Fluency (ISF), Phoneme Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF). Convenience sampling was used to select the experimental group (n= 180) and control group (n = 384). Students who were currently using *istation* program were assigned to the experimental group and those who were not using it were assigned to the control group. Benchmark assessments were administered three times a year to all students. Progress monitoring was used for students who needed to be monitored on a more regular basis.

Initially, only students from Title I schools participated in the experimental group, but as the year progressed students from non-Title I schools were also included based on low performance on DIBELS assessments. The experimental group was encouraged to use *istation* program at least three-five times per week for thirty minute sessions. The control group participated in their typical language arts curriculum and various teacher selected interventions. Results indicated the experimental group made significant improvements relative to the control group ($p < .05$) from the September to May measures of LNF, PSF, and NWF. Although these results are helpful as an initial evaluation of the efficacy of instruction provided by *istation*, since the students were not randomly assigned to the experimental or control group, the differences in performance between the groups at the end of the year cannot be unequivocally attributed to the use of the program.

During the 2003-2004 school year, the Fort Worth Independent School District was involved in a Texas Education Agency funded grant, TARGET, in which the implementation of *istation* was the primary activity of the grant (other activities funded by the grant included coaching visits, technology training, and additional technology-based supplemental reading programs). TARGET was implemented in 14 high poverty schools. 4,337 students and 231 teachers in grades kindergarten through second grade received one or more of the grant services. The impact of *istation* activities on student reading achievement was assessed using an experimental design that compared test scores of two matched, randomly assigned groups of students: (a) *istation* students and (b) students in alternative interventions. 1,722 students were identified through the Texas Primary Reading Inventory (TPRI) scores and teacher recommendation for *istation* intervention. Of these 1,722 students, a representative sub-sample of 862 students was selected for tracking implementation and assessing program impact. Students were matched within classroom on socioeconomic status, gender, ethnicity, English proficiency, and beginning of the year TPRI scores, and then randomly assigned to either the experimental or control group. Outcome measures included the TPRI, Stanford 10 (SAT 10) reading scores, and progress through pre-determined levels of reading abilities (tiers). In the fall semester, due to late starts, *istation* was not implemented at the recommended rate of 90 minutes per week. However, by the spring semester, the average use per student was 85 minutes per week (range= 63 to 112 minutes). Students in the control group engaged in alternative interventions for three, 30 minute sessions per week. Alternative interventions included Lexia, 100 Easy Lessons, Read Well, TPRI Intervention

activities, Voyager Passport, My Reading Coach, and SOAR to Success. The report did not identify who taught the intervention lessons.

Statistical analyses were used to compare the beginning and end of year TPRI and end of year SAT 10 reading scores of students in the experimental and control groups to determine if those in *istation* group made significantly greater gains than those in the alternative intervention group. Assessment of student reading achievement showed a positive impact on basic student reading skills for students who worked with *istation* program. In addition, the percentage of *istation* students who made year end gains on the TPRI measures was larger than Alternative Intervention students. The increased percentage of kindergarten students from *istation* group who met screening and comprehension criteria was 4% and 2%, respectively more than the Alternative intervention group. First grade students from *istation* group met screening criteria, comprehension criteria, and words read per minute at 2%, 4% and 3% respectively over the Alternative Intervention students. Second grade students from *istation* group improved similarly to the Alternative intervention group from beginning to end of year scores for percentage of students who met the comprehension criteria. However, *istation* students increased the percentage of students who met the words per minute criteria by 2% over the Alternative Interventions group. During the first year of implementation, no significant impact was observed on overall reading ability as measured by the SAT 10.

We conclude that there is at least a beginning level of research support for the use of *istation* as an internet-based curriculum to teach reading to children. In one study involving random assignment to treatment and control groups, the students receiving *istation* program improved more on basic reading skills than did students receiving alternative interventions in grades K-2. Further, the program provides explicit instruction in the important areas of reading growth, has a well organized scope and sequence, and also includes multiple opportunities for practice to mastery of each skill.

Strengths & Weaknesses

Strengths of *istation*:

- Engaging animation and game-like format.
- Multiple opportunities for modeling and student practice with each activity.
- Systematic and sequential presentation of skills based on student performance data.
- Internet-based design allows for immediate software updates and no CD-ROMs or school-based servers are used.
- Teacher reports assist in grouping and provide ready to use materials for intervention.

Weaknesses of *istation*:

- None were noted.

Which Florida districts have schools that implement *istation*?

Hillsborough	813-272-4050	Polk	863-534-0521
Lake Wales Charter Schools	863-679-6560	Seminole	407-320-0006
Monroe	305-293-1400	Volusia	386-734-7190
Pasco	813-794-2651		

For More Information

www.istation.com

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Important Note: FCRR Reports are prepared in response to requests from Florida school districts for review of specific reading programs. The reports are intended to be a source of information about programs that will help teachers, principals, and district personnel in their choice of materials that can be used by skilled teachers to provide effective instruction. Whether or not a program has been reviewed does **not** constitute endorsement or lack of endorsement by the FCRR.

For more information about FCRR go to: www.fcrr.org