

Florida Center for Reading Research

LeapTrack Assessment & Instruction System

What is the LeapTrack System?

LeapTrack Assessment & Instruction System is a supplemental computer based program designed for kindergarten through fifth grade students. *LeapTrack* uses formative assessment to guide student practice in developing the skills found on classroom-based tests, standardized achievement tests, or statewide assessments, such as Florida's FCAT. It uses a three- step process to provide individualized, differentiated instruction for every student using the system: Assess, Report and Prescribe. The scope and sequence is organized in five domains: reading, language arts, vocabulary, math, science and social studies. The focus of this report will be the kindergarten through third grade reading and vocabulary components of the program.

LeapTrack system can be implemented in a typical classroom (for example, during center time), in the school library, or in a school lab-type setting. *LeapTrack* kits are available in grade-level configurations providing teachers with the materials necessary to assess and instruct the broad range of learning needs in each classroom. Included in the kits are the LeapTrack Management Software, 12 LeapPad (K-1) or the Quantum Pad (2-5) student units with headphones, 24 student cartridges, the LeapPort Cartridge Station, Assessment Books, Teacher's Guides for the classroom and system, Instructional Skill Cards, and Interactive Books. The LeapPads/Quantum Pads are multisensory units that operate with a wand that "reads" the assessment, book, or skill card corresponding to the student cartridge. The *LeapTrack* Application software can be used on a PC or a MAC Computer and can also be installed in a Local Area or Wide Area network. After the software is downloaded onto one classroom computer the LeapPort Cartridge Station is plugged into the USB port on the computer allowing the teacher to load up to 12 student cartridges at one time. Students then plug their personal cartridges into their LeapPad or the Quantum Pad units, allowing twelve children to work simultaneously and independently at a learning center, or their own desks. Assessment results are reported and stored in approximately two seconds on the classroom computer generating an individualized Learning Path for each student. The Learning Path prescribes the audio-assisted skill cards and/or interactive books that directly address areas of greatest need of each student. The skill cards can be completed in approximately 20 to 25 minutes. The books vary in length according to complexity.

The Assessment portion of the program is demonstrated with four types of criterion-referenced, formative assessments: (1) Critical Skills Survey Assessments for Kindergarten through Fifth grade, one for the beginning, middle and end of the school year (these provide information about each student's mastery of key skills such as the Florida Sunshine State Standards), (2) Early Literacy Assessments (for PC version only) begin with print awareness and letter names, and progress systematically to graphophonemic knowledge, (3) Vocabulary Diagnostics, available for grades 1-5, helps determine reading readiness and the ability to read advanced texts, and (4) State Practice Tests are available for Florida and Texas to help students prepare for state-mandated exams.



The Reports in *LeapTrack* are generated within seconds and can be printed to share with parents and administrators. Teachers can choose from any of the four categories of report types to receive survey and state standard results: individual student reports, class reports, school reports and reports for the district. Next, a Prescribed Learning Path is computed, based on a student's assessment performance. The prescribed Learning Path provides activities to help students develop key skills and move toward mastery of state standards using the skill cards and the interactive books.

How is the LeapTrack system aligned with Reading First?

LeapTrack is not a comprehensive reading program, thus the instructional component is not explicit in teaching all five components of reading defined by Reading First. For example, although fluency skills are not explicitly taught or assessed in the program, the modeling that occurs while the student is engaged with the books using the Quanteum Pad/LeapPad platforms and headphones, reinforces fluency. The program does reach its goal of assessing and providing practice with the Sunshine State Standards for Florida. Alphabetical order is the only grade level expectation that is not covered in the kindergarten through third grade reading strand of the Florida Sunshine State Standards.

LeapTrack provides assessment for phonemic awareness but the prescribed skill cards and books provided practice with phonics skills, not phonemic awareness. However, a phonemic awareness series comprised of six interactive books has been developed and is now available for *LeapTrack*. Accompanying this phonemic awareness series is a teacher friendly guide with explicit information explaining the importance, stages, best practice, definitions, and informal assessments of phonemic awareness. The lessons, incorporating the interactive books, are to be introduced by the teacher in small groups before allowing students to work independently. The lesson plan activities combined with the interactive books provide systematic instruction and opportunities for students to practice phonemic awareness.

In terms of phonics, the program is not systematic in that the emphasis is on vowels and blends leaving a gap concerning individual consonant sound instruction. The cards offer practice with short vowels, blends, long vowels, digraphs, diphthongs, r-controlled vowels, and l-controlled vowels. There are 27 skill cards and 26 interactive books that are prescribed for follow-up practice. The interactive books have the "say it" "sound it" "spell it" capability if the student touches the wand to the corresponding command. Although there are technical problems in many of the books in the 2.0 version (moving the wand slightly to the left will sometimes correct the mistake, but this may cause confusion for early readers), *LeapTrack* 3.0 will download corrections onto all existing programs, correcting the mistakes, at no cost to the consumer. Another aspect of the phonics component of *LeapTrack* that is helpful for early readers is the use of yellow highlights to indicate letter teams that make a single sound (e.g., ai, ch) or irregular words (e.g., the, was) throughout the stories. These yellow highlights alert the reader that the letter team makes one sound or that the word is an irregular word. When the wand touches the yellow highlights the audible text will read the word parts or the word.

Vocabulary assessments are provided beginning at the first grade level. The follow-up skill cards provide instruction and practice activities using word learning strategies such as: synonyms and antonyms, roots and affixes, context clues, word origins, idioms, and figurative meanings. In the interactive texts, definitions of highlighted vocabulary words can be heard by touching the word twice with the wand.

Practice activities that align with state standards are specifically addressed on the comprehension skill cards. Immediate feedback is provided as students engage in interactive opportunities for applying comprehension skills in meaningful text. These comprehension skills include summarizing, predicting, and clarifying. Literal and inferential comprehension is addressed at all grade levels. Extended meaning, literary response and literary analysis are addressed where academically and developmentally appropriate. Although there is only one card for each skill per level, students receive prescriptions for below, on and above grade level instruction and practice to insure both success and challenge for all students.

Either a full day or half day of professional development is available for teachers, administrators and reading specialists. The workshops include hands-on activities that are designed to increase teacher confidence in using both the assessment and the instructional content of the program. Two visits are provided after the initial training. The goals of these visits are: unpacking and setting up materials, using the curriculum, implementing strategies at learning centers, and coaching to include coordination with a school's comprehensive reform goals and objectives. Ongoing training sessions are also available depending on calendar and district need. An interim workshop is recommended for product and curriculum review and classroom management progress after the first three months of implementation. During year 2 of implementation, a review session is offered for new or returning staff. Fidelity of delivery is provided with a teacher telephone mentoring service that provides ongoing contact to promote successful use of the program.

Research Support for LeapTrack

LeapTrack Assessment & Instruction system, developed by LeapFrog SchoolHouse, was first released in August 2002. *LeapTrack* is based on research that illustrates that the use of formative assessment to guide instruction produces significant learning gains.

In June 2002 LeapFrog SchoolHouse hired MGT of America, Inc. to conduct a study to confirm that the alignment of the LeapTrack curriculum with the Florida Sunshine State Standards (SSS) and Grade Level Expectations (GLE) was accurate. In addition, LeapFrog SchoolHouse asked MGT to look for additional GLE's that could be aligned to *LeapTrack* questions. MGT reviewed a total of 303 Reading questions on the beginning, middle and end of year critical skills assessments for Kindergarten through Third grade. MGT also made recommendations for 162 additional critical skills assessment questions for Reading. MGT reviewed the FCAT Practice Tests for Third grade Reading that are contained in LeapTrack and found that of the 36 assessment questions 97% accurately aligned with the standards. MGT suggested 18 additional questions, which is in discussion for future development.

In the spring of 2002, LeapFrog SchoolHouse conducted a validity study in Florida to evaluate the performance of students using the *LeapTrack* end-of-year assessments in relation to their performance on the reading portion of the Florida Comprehensive Assessment Test (FCAT). Four third grade classrooms in Osceola County participated in this study. Approximately 12% of the student population qualified for Title I funding. A total of 91 students completed both the *LeapTrack* end-of-year reading assessment and the reading portion of the FCAT. Performance means

for both the *LeapTrack* end-of-year assessment and the FCAT were compared and overall, students' performance on both tests was consistent. Results revealed a substantial correlation between the two tests of .69 ($p < .01$). This relationship

compares favorably with the correlation obtained between oral reading fluency and performance on the FCAT, which is approximately .70 (Buck & Torgesen, 2003).

In sum, LeapFrog SchoolHouse used formative research procedures to develop the instructional content and design of *LeapTrack*. Currently, LeapFrog SchoolHouse is conducting a validity study in four states. An efficacy study, conducted by a third party, is also underway in three states. This research will increase our knowledge about the instructional efficacy of *LeapTrack*. The LeapTrack reading assessment appears to be reasonably well aligned with the skills required for performance on the reading section of the FCAT.

Strengths & Weaknesses

Strengths of *LeapTrack*:

- The overall program design allows for engaging individualized practice activities for students to complete while the teacher works with small groups of children.
- FCAT Practice Tests follow the format of the actual FCAT, allowing students to become familiar with the type of questions they will encounter on the state test.
- The Interactive books, skill cards, and colorful illustrations are engaging.
- Extra LeapPad/Quantum Pads may be purchased allowing a greater number of students to work independently and simultaneously. Some schools also allow students to check out the multi-sensory pads to take home, encouraging parent involvement.

Weaknesses of *LeapTrack*:

- Although the materials are boxed separately they are not clearly labeled and must be organized by the teacher, which can be time consuming and cumbersome. The company is aware of the issue and is developing support materials and improved labeling to assist teachers with this aspect.
- Technical glitches in the interactive books could be confusing to young readers' understanding of sounds and letters. However, *LeapTrack* will download the new 3.0 version onto all existing programs, correcting the technical problems, at no charge.
- Effective scaffolding is not consistently used throughout the program. Instead, the student is prompted to move on or the correct answer is provided.

Which Florida districts have schools that implement LeapTrack?

Alachua	352-955-7527	Osceola	407-870-4008
Broward	954-765-6271	Polk	863-534-0521
Leon	850-487-7147	Seminole	863-534-0521
Madison	850-973-5022	St. Johns	904-819-7502
Orange	407-317-3202		

For More Information

<http://www.leapfrogschoolhouse.com/Products/LeapTrack.asp>

References

Buck, J. & Torgesen, J.K. (2003). The relationship between performance on a measure of oral reading fluency and performance on the Florida Comprehensive Assessment Test. Technical Report #1, Florida Center for Reading Research, Tallahassee, FL



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