Using computer-adaptive assessments of literacy to monitor the progress of English learner students

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This study examined how teachers and school staff administered computer-adaptive assessments of literacy to English learner students in grades 3–5 and how they used the assessments to monitor students' growth in literacy skills. It presents findings that may aid districts in implementing a computer-adaptive assessment of literacy skills for English learner students as well as for other students.

Why this study?

A top education priority in the United States is to address the needs of one of the fastest growing yet lowest performing student populations—English learner students (Capps et al., 2005). English learner students come from homes where a non-English language is spoken and need additional academic support to access the mainstream curriculum. These students account for about 10 percent of the preK–12 student population in the United States (Aud et al., 2013). Spanish-speaking students account for 80 percent of the English learner student population in the United States and, because they live disproportionately in poverty and attend schools with higher percentages of racial/ethnic minority students, students from low-income households, and students with low achievement, Spanish-speaking students are at greater risk of low achievement than other English learner students (Capps et al., 2005).

Over the past two decades several states have changed their language policy away from maintenance of home language and toward English immersion. Arizona, California, and Massachusetts now require students to develop sufficient English to perform grade-level work within one year (Gándara et al., 2010).

This mainstreaming of English learner students suggests that language learning services may need to be reconceptualized as an ongoing system of support, where students' skills are measured and the data are used to inform instruction (Slama, 2014).

Reliably measuring the literacy skills of English learner students can be challenging. Assessments typically address only grade-level proficiency, do not provide instructionally relevant information, and are not developmentally scaled to measure change over time (Francis et al., 2006). One solution is to administer a computer-adaptive assessment of literacy skills with enough items to measure growth. In a computer-adaptive assessment the selection, order, and number of items administered depend on a student's ability at the time of assessment. Students receive harder or easier items based on their performance, and the system stops administering items once it has enough information about the student's ability. Thus, adaptive assessments maximize precision of information while minimizing time spent gaining it (Mitchell, Truckenmiller, & Petscher, 2015). By targeting a student's performance level, adaptive assessments are particularly valuable for students whose performance is outside typical grade-level norms, such as English learner students.

Valid and reliable computer-adaptive assessments of literacy are becoming more widely available—see, for example, the Smarter Balanced assessment. However, there are many issues for district and school leaders and teachers to consider when implementing a computer-adaptive assessment of literacy. Common questions are whether it is online, what the costs are, how long it will take to administer, who will administer it and how they will be trained, how the data translate to instruction, and whether it can be used to monitor students' growth in oral language as well as reading. These questions are of interest nationally and in Florida.

What the study examined

This study was conducted during the 2014/15 school year in a large urban district in Florida that enrolled a large population of non-English-speaking students in grades 3–5. The district selected three schools representative of the demographics of the English learner student population in the district to take part in the study: School 1 was an elementary school that had a primarily Spanish-speaking student population and many recent immigrants, School 2 was a K–8 school that had a primarily Spanish-speaking student population and many migrant families, and School 3 was an elementary school that had a primarily Haitian-Creole student population. Some 117 English learner students in grades 3–5 with parental consent participated in the study. These students were at the two lowest levels of English proficiency based on the district's administration of the Comprehensive English Language Learning Assessment (Educational Testing Service, 2005). The students were classified as English levels 1 and 2 based on district-determined ranges of ability scores on the assessment for grades 3–5 (see table A1 in appendix A). By the end of the year 102 students remained at the same school, and the analysis is limited to those students.

The computer-adaptive assessment administered in the study was developed by the Florida Center for Reading Research (FCRR) at Florida State University and is called the FCRR Reading Assessment (box 1). It is based on research that shows the importance of measuring oral language as well as reading when predicting reading comprehension outcomes (for example, Foorman, Herrera, Petscher, Mitchell, & Truckenmiller, 2015; Foorman, Koon, Petscher, Mitchell, & Truckenmiller, 2015). The assessment was provided free to the district.

During 45-minute team meetings in September 2014, Regional Educational Laboratory (REL) Southeast staff trained 18 teachers and staff at the three schools to administer the FCRR Reading Assessment. School staff and teachers administered the assessment three times during the 2014/15 school year: period 1 was in

Box 1. About the Florida Center for Reading Research Reading Assessment

The Florida Center for Reading Research Reading Assessment (FCRR Reading Assessment) consists of a K–2 system and a 3–12 system administered at three periods—period 1 (fall), period 2 (winter), and period 3 (spring). It was developed under federal grants to Florida State University (Foorman, Petscher, & Schatschnei-der, 2015) and normed on Florida students.

Each system consists of a series of tasks for which students receive five items at grade level and then additional tasks that the system adapts up or down in grade level based on performance to reach a precise estimate of a student's ability.

The K–2 system consists of screening, comprehension, and diagnostic tasks that the teacher administers to students individually. Screening tasks take 10–15 minutes to administer, and if successful on them, students move on to the comprehension tasks and then testing stops. Students take the diagnostic tasks only if their performance on the screening tasks is predicted to be below the 40th percentile on a norm-referenced test at the end of the year. (All students in the study received the diagnostic tasks, and therefore total testing time for them was about 45 minutes.)

The number of screening tasks in the K–2 system varies by grade; the tasks are phonological awareness, letter sounds, word reading, spelling, vocabulary pairs, and following directions (see table A2 in appendix A). Oral language screening tasks span all three grade levels, but reading-related screening tasks differ in kindergarten versus grades 1 and 2 The K–2 system's diagnostic tasks are letter name knowledge, phoneme deletion, letter sound connections, word building, and multisyllabic word reading. Phoneme deletion is the only diagnostic task common across all three grade levels. And the K–2 system's two comprehension tasks are sentence comprehension and listening and reading comprehension, which are common across all three grade levels.

The 3–12 system consists of screening and comprehension tests that students complete online in a computer lab in one 45-minute class period. Its three screening tasks are word recognition, vocabulary knowledge, and syntactic knowledge (see table A3 in appendix A). Its only comprehension task is reading comprehension.

early October, period 2 was in January/February, and period 3 was in April/May. REL Southeast staff met with teachers and staff for 20- to 40-minute data chats (depending on the number of students whose data were discussed) within a week after each assessment period.

In October, 62 English level 1 learner students were tested at the kindergarten level of the K–2 system, and 55 English level 2 learner students were tested at the grade 2 level of the K–2 system (see table A4 in appendix A for the breakdown of English level 1 and 2 learner students by school and grade at the first assessment period). Students advanced to more challenging tasks when they reached the 50th percentile of the next grade's norms. Students moved to the 3–12 system when they reached the 50th percentile of the grade 3 norms.

The study addresses three research questions:
- How did teachers and school staff administer computer-adaptive assessments of literacy to English learner students in grades 3–5?
- Did the students make progress on the computer-adaptive assessments of literacy?
- How did teachers and school staff use the assessments to monitor students' growth in literacy skills?

What the study found

This section describes the findings of the study.

Teachers and school staff partnered with each other to complete the assessments within the required timeframe

Grade 3–5 teachers in the participating district and in Florida are generally accustomed to taking their students to computer labs for computer-adaptive assessments during a 45-minute class period, which is how the FCRR Reading Assessment 3–12 system is administered. But the K–2 system is administered one-on-one and takes approximately 45 minutes to administer for each student when screening, comprehension, and diagnostic tasks are included, as in this study. Florida K–2 teachers who need to administer all three types of tasks to the majority of the 20 students in their classroom—the maximum number dictated by the class size amendment to the state constitution—will often partner with another teacher in the grade to combine their classes so that one teacher can test while the other teaches. Because the assessment window in Florida is 30 instructional days, K–2 teachers typically have no trouble completing their assessments. The teachers in grades 3–5 participating in this study were not accustomed to testing students individually and thus asked for help from other school staff to complete the testing within the 30-day window.

The three participating schools varied in the number of English level 1 and 2 learner students in each classroom in grades 3–5 and thus in the number of hours and staff needed to administer the K–2 system (table 1). Except for the art teacher and kindergarten teacher, the additional staff were specialists or classroom teachers of the participating English 1evel 1 and 2 learner students in the study.

Schools 1 and 2 had relatively few English level 1 and 2 learners in each classroom. In School 1 the English language arts teachers themselves were able to administer the majority of the assessments, and the kindergarten teacher administered the rest. In School 2 the principal required that the resource teacher administer all the assessments. In School 3, in addition to the English language arts teachers, an English learner specialist, an art teacher, and a special education teacher were needed to administer the assessments because English learner students were concentrated in particular classrooms rather than spread across classrooms.

Students' literacy skills improved, but most students remained at the same level of the Florida Center for Reading Research Reading Assessment K–2 system

Of the 51 English level 1 students who started at the kindergarten level of the FCRR Reading Assessment K–2 system, 35 remained at that level at the end of the year (figure 1). Of the 51 English level 2 students

Table 1. Number of English level 1 and 2 learner students and number of hours and staff needed to administer the Florida Center for Reading Research Reading Assessment K–2 system, by school, 2014/15

School	Number of English level 1 or 2 learner students per classroom	Number of hours needed to administer the Florida Center for Reading Research Reading Assessment K–2 system per classroom	Staff needed to administer the Florida Center for Reading Research Reading Assessment K 2 system
1	2–10	1.5–7.5	English language arts teachers, kindergarten teacher
2	2–10	1.5–7.5	Resource teacher
3	10–12	7.5–9	English learner specialist, two home room English language arts teachers, one art teacher, one special education teacher

Source: Authors' analysis of observational data compiled by Regional Educational Laboratory Southeast staff in 2014/15.
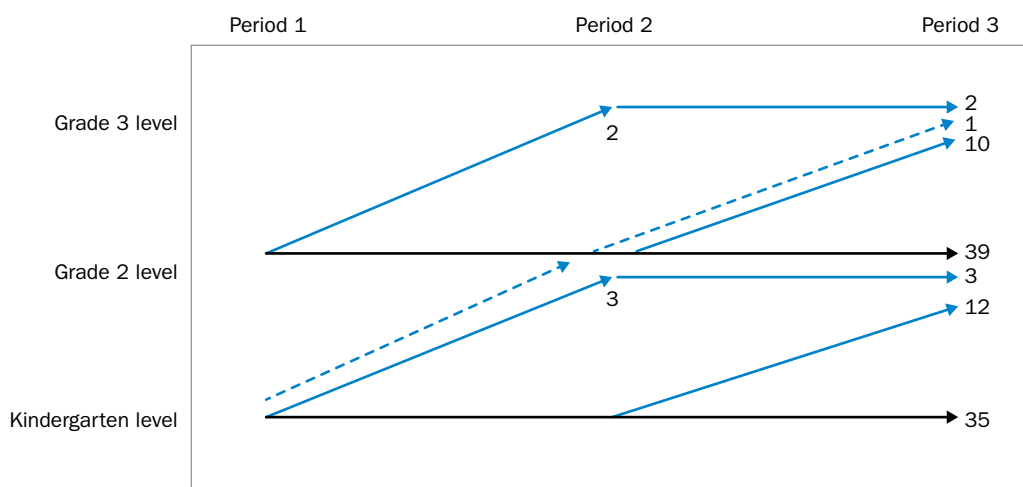
who started at the grade 2 level, 39 remained at that level at the end of the year. Between period 1 and period 2, three English level 1 learner students advanced from the kindergarten level to the grade 2 level and two English level 2 learner students advanced from the grade 2 level to the grade 3 level in the 3–12 system. Between periods 2 and 3, 12 English level 1 learner students advanced from the kindergarten level to the grade 2 level, and 10 English level 2 learner students advanced from the grade 2 level to the grade 3 level (in the 3–12 system). One English level 1 learner student advanced from the kindergarten level to the grade 2 level between periods 1 and 2 and from the grade 2 level to the grade 3 level (in the 3–12 system) between periods 2 and 3.

After each of the three assessment periods REL Southeast staff provided classroom teachers and other staff with FCRR Reading Assessment score reports and figures for each English level 1 and 2 learner student in their classroom, as well as a summary of all English level 1 and 2 learner students in each class (see figure A1 in appendix A for a sample score report).

English level 1 learner students who remained at the kindergarten level across all three periods. Four English level 1 learner students who started at the kindergarten level of the FCRR Reading Assessment advanced to the grade 2 level between periods 1 and 2, and 12 advanced between periods 2 and 3 (see figure 1). The discussion here considers only the averages for the 35 English level 1 learner students who remained at the kindergarten level across all three periods. Averages would be higher if students who advanced to the grade 2 or 3 level of the K–2 system were included.

English level 1 learner students improved, on average, across assessment periods in all FCRR Reading Assessment K–2 system tasks. The average ability score in phonological awareness increased 80 points (from 392 in period 1 to 472 in period 3; table 2). The average ability score in vocabulary pairs increased 96 points (from 329 in period 1 to 425 in period 3), to above the state-level kindergarten mean of 401 (figure 2). The average ability score in following directions increased 164 points, approaching the state-level kindergarten mean of 436 (figure 3). The average ability score in sentence comprehension increased 107 points.

Figure 1. The majority of English level 1 and 2 learner students remained at the same levels of the Florida Center for Reading Research Reading Assessment across all three assessment periods, 2014/15

Note: Black lines represent English level 1 and 2 learner students who remained at the same level of the Florida Center for Reading Research Reading Assessment across all three assessment periods, dark blue lines represent students who advanced to the next level, and the dashed blue line represents the student who advanced two levels.

Source: Authors' analysis of data from the Florida Center for Reading Research Reading Assessment K–2 and 3–12 systems in 2014/15.
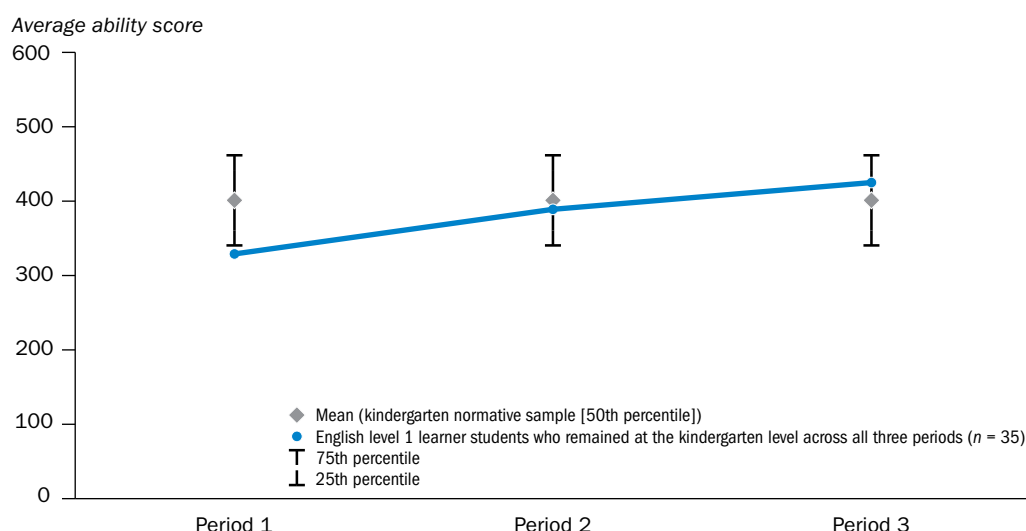
Table 2. Average ability score among students at the kindergarten level of the Florida Center for Reading Research Reading Assessment K–2 system across all three periods, 2014/15

Task	English level 1 learner students (n = 35)			Kindergarten normative sample at period 2		
	Period 1	Period 2	Period 3	25th percentile	50th percentile	75th percentile
Phonological awareness	392	434	472	449	501	560
Letter sounds	377	392	na	442	500	564
Word reading	na	na	603	310	421	536
Vocabulary pairs	329	389	425	350	401	453
Following directions	261	340	425	355	436	517
Sentence comprehension	382	440	489	453	503	565

na is not applicable because the task is not administered in the period indicated.

Source: Authors' analysis of data from Florida Center for Reading Research Reading Assessment K–2 system in 2014/15.

Figure 2. By period 3, English level 1 learner students who remained at the kindergarten level across all three periods scored above the state-level kindergarten mean in vocabulary pairs, 2014/15

Average ability score

Legend:
◆ Mean (kindergarten normative sample [50th percentile])
● English level 1 learner students who remained at the kindergarten level across all three periods (n = 35)
⊤ 75th percentile
⊥ 25th percentile

Note: The range of the y-axis corresponds to the range of scores of English level 1 learner students in the study.
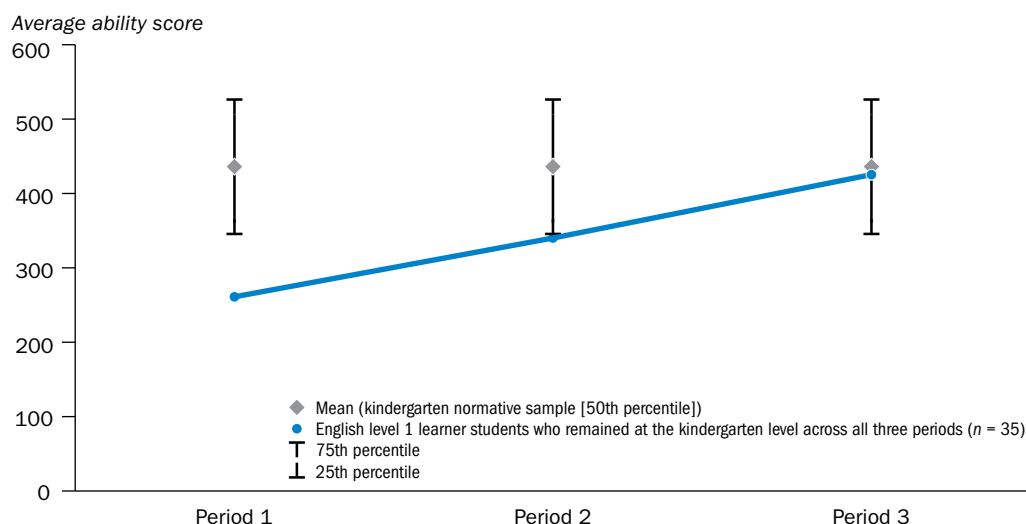
Source: Authors' analysis of data from the Florida Center for Reading Research Reading Assessment K–2 system in 2014/15.

The average ability score in letter sounds, which is administered only in periods 1 and 2, increased 15 points. The average ability score in word reading (603), which is administered only in period 3, exceeded the 75th percentile of the state-level kindergarten mean (536).

English level 2 learner students who remained at the grade 2 level in all three periods. The discussion here considers only the averages for the 39 English level 2 learner students who remained at the grade 2 level of the FCRR Reading Assessment at period 3.

English level 2 learner students made progress in all tasks across the year. The average ability score in word reading increased 25 points (from 566 in period 1 to 591 in period 3) and approached the state-level grade 2 mean by period 3 (table 3). The average ability score in vocabulary pairs increased 70 points to 560 in period 3, which was between the 25th and 50th percentile scores of the state-level grade 2 mean (figure 4).

Figure 3. By period 3, English level 1 learner students who remained at the kindergarten level across all three periods approached the state-level kindergarten mean in following directions, 2014/15

Average ability score

Note: The range of the *y*-axis corresponds to the range of scores of English level 1 learner students in the study.

Source: Authors' analysis of data from the Florida Center for Reading Research Reading Assessment K–12 system in 2014/15.

The average ability score in following directions increased 59 points. The average ability score in sentence comprehension increased 66 points; the mean improvement relative to the state-level kindergarten norms indicates that English level 2 learner students' skills in receptive syntax were developing. Twelve of the 39 English level 2 learner students scored at or above the 45th percentile in word reading in all three periods and were administered the spelling tasks; the average ability score in spelling increased 47 points by period 3 to above the grade 2 state-level mean.

English level 1 and 2 students who advanced to the grade 3 level. Of the 102 students who remained at the same school at the end of the year, 13 advanced to the Florida Center for Reading Research Reading Assessment 3–12 system. Eleven of the 13 students did not progress into this system until period 3. By period 3, 6 of the 13 performed at or above the state-level mean for grade 3 in word recognition, vocabulary knowledge, and syntactic knowledge, and 3 performed at or above the state-level mean in reading comprehension.

Table 3. Average ability scores among students at the grade 2 level of the Florida Center for Reading Research Reading Assessment K–2 system across all three periods, 2014/15
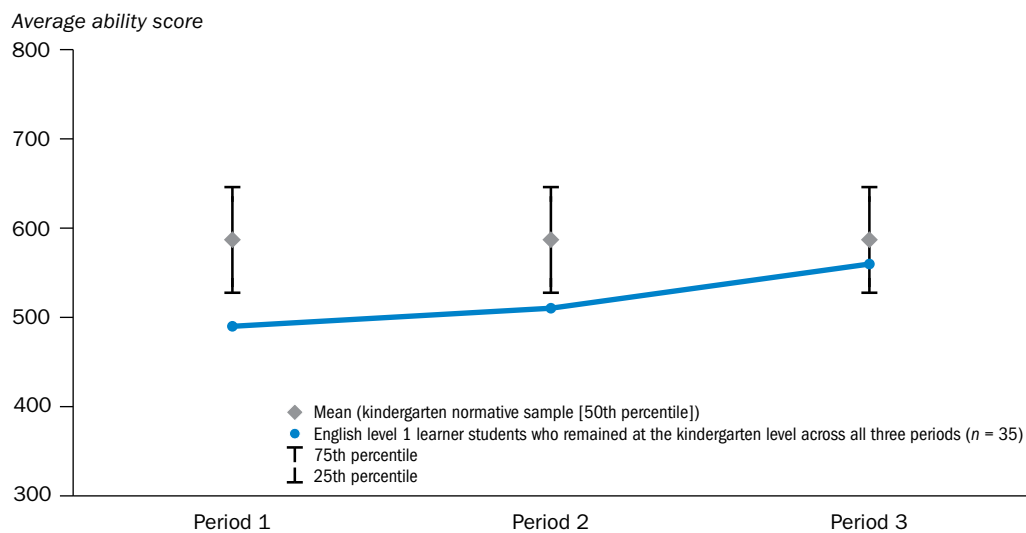
| Task | English level 2 learner students (*n* = 39) | | | Grade 2 normative sample at period 2 | | |
	Period 1	Period 2	Period 3	25th percentile	50th percentile	75th percentile
Word reading	566	588	591	544	602	660
Vocabulary pairs	490	510	560	535	587	638
Following directions	505	502	564	543	606	667
Sentence comprehension	536	572	602	453[a]	503[a]	565[a]
Spelling[b]	475	501	522	422	502	571

a. Because sentence comprehension is typically only a kindergarten task, scores refer to the kindergarten normative sample.

b. Twelve students scored at or above the 45th percentile in word reading and were administered the spelling tasks.

Source: Authors' analysis of data from the Florida Center for Reading Research Reading Assessment K–2 system in 2014/15.

Figure 4. By period 3 English level 2 learners improved but remained below the state-level grade 2 mean in vocabulary pairs, 2014/15

Average ability score

Mean (kindergarten normative sample [50th percentile])
English level 1 learner students who remained at the kindergarten level across all three periods (*n* = 35)
75th percentile
25th percentile

Note: The range of the *y*-axis corresponds to the range of scores of English level 2 learner students in the study.

Source: Authors' analysis of data from the Florida Center for Reading Research Reading Assessment K–12 system in 2014/15.

Teachers found the students' data useful for planning instruction and monitoring progress

During team meetings after the end of each assessment period, the 18 participating teachers and staff held 20- to 40-minute data chats in six small groups with REL Southeast staff. In general, teachers find assessment data useful when it affirms their observations of the students in their classroom and provides information that helps tailor instruction to the learning profiles of individual students (Tomlinson, 1999). For example, teachers and staff in all six groups mentioned that the strengths and weaknesses shown in the individual score reports and graphs were consistent with the skill patterns seen in the classroom and with students' oral language proficiency scores as measured by the Comprehensive English Language Learning Assessment. Teachers in two groups noted that low scores for some students on the following directions task were consistent with their observations of those students' inability to remember directions.

Teachers and staff discussed ways to intensify or adapt their instruction based on individual students' performance on the screening, comprehension, and diagnostic tasks in periods 1 and 2. For example, low performance on the vocabulary pairs task prompted discussions in four of the groups about how to enhance vocabulary instruction. One of the grade 5 teachers at School 3 implemented recommendations on teaching vocabulary from an Institute of Education Sciences practice guide (Baker et al., 2014) during her small-group intervention class with English level 1 and 2 learner students participating in the study. She found the practices so helpful that she shared them with her colleagues during the data chat after period 2.

In addition to using the data to plan instruction, teachers monitored students' progress by comparing their scores on each task from one assessment period to the next. Teachers looked at individual student score reports and graphs, as well as at reports and graphs aggregated by English level and by grade. The teachers discussed whether their instructional plans implemented after period 1 resulted in improved performance at period 2 and whether additional adjustments in instruction were needed prior to period 3.

At the data chat after period 3 in May, teachers and staff reflected on areas of student growth and updated their observations of strengths and needs. They shared the scores and charts with parents and noted their intent to share them with the receiving teachers who would be teaching the students in the fall.

Implications of the study

Findings from this study are limited by the small number of schools (three) and relatively small number of English level 1 and 2 learner students (102 across all three assessment periods). Nevertheless, the findings may inform decisions regarding how to assess English learner students, how to monitor their growth, and how to translate their data to instructional practice.

The major finding of this study is that teachers in grades 3–5 can partner with other staff to individually administer computer-adaptive assessments of literacy three times a year to individual English level 1 and 2 learner students. Training teachers and staff to administer the assessments was possible during team meetings; however, a 45- to 90-minute training during the preplanning period before the start of the school year may be more beneficial. The 30-day assessment window was sufficient to administer screening and diagnostic tasks to each student in one 45-minute session. Teachers used score reports and graphs to note students' strengths and weaknesses in oral language and reading and to differentiate instruction. They also used scores to monitor student progress, making instructional adjustments as needed, and to report progress to parents.

The findings about the utility of administering a valid and reliable literacy assessment and translating results to instruction led REL Southeast staff to note the following lessons learned that may aid districts in implementing a computer-adaptive assessment of literacy skills:
- Eliminate assessments that overlap in skills and delineate the purpose of each assessment selected.
- Select online computer-adaptive literacy assessments that have strong evidence of validity and reliability and that measure student growth.
- Consider selecting online computer-adaptive literacy assessments in K–2 that can be administered individually to students so that teachers can observe and respond to a student's misconceptions and learning differences.
- Build capacity at the district and school levels to support teachers' professional development around the administration of computer-adaptive assessments and the interpretation and use of results at the classroom, school, and district levels.
- Train teachers and support staff in a 45- to 90-minute session during the preplanning period before the school year starts (with the length of the session varying depending on teachers' experience administering computer-adaptive assessments).
- Discuss strategies to support teachers who are individually administering assessments to students and need instruction in foundational literacy skills, such as using support staff or combining students across classes within a grade during the assessment window.
- Conduct data chats during team meetings after each assessment period to discuss the translation of data to instructional planning.

Appendix A. Additional tables and figures

This appendix presents tables and figures on ability score ranges on the Comprehensive English Language Learning Assessment for English levels in grades 3–5, tasks in the Florida Center for Reading Research Reading Assessment K–2 and 3–5 systems, number of English level 1 and 2 learner students by school and grade at the beginning of the school year, a sample score report for an English level 1 learner student at period 1, and average ability scores on following direction and vocabulary pairs.

Table A1. Ability score ranges on the Comprehensive English Language Learning Assessment for English levels in grades 3–5, 2014/15

Grade	Level 1	Level 2	Level 3
3	1899 or lower	1900–2014	2015–2104
4	1974 or lower	1975–2073	2074–2147
5	2040 or lower	2041–2115	2116–2180

Source: Data obtained from a large urban district in Florida in 2014/15.

Table A2. Tasks in the Florida Center for Reading Research Reading Assessment K–2 system, by grade and assessment period, 2014/15

Task	Kindergarten			Grades 1 and 2			Task description
	Period 1 (early October)	Period 2 (January/ February)	Period 3 (April/ May)	Period 1 (early October)	Period 2 (January/ February)	Period 3 (April/ May)	
Screening							
Phonological awareness	✔	✔	✔				Students listen to a word that has been broken into parts and then blend them back together to reproduce the word.
Letter sounds	✔	✔					A letter is presented on the monitor in upper- and lower-case and students provide the sound it makes.
Word reading			✔	✔	✔	✔	Words of varying difficulty are presented on the monitor one at a time and students read them aloud.
Spelling[a]				✔	✔	✔	The computer provides a word and uses it in a sentence. Students respond by using the computer keyboard to spell the word.
Vocabulary pairs	✔	✔	✔	✔	✔	✔	Three words appear on the monitor and are pronounced by the computer. Students select the two words that go together best (for example, "dark, night, swim").
Following directions	✔	✔	✔	✔	✔	✔	Students listen and click and drag objects in response to the computer's directions (for example, "put the square in front of the chair and then put the circle behind the chair").

(continued)

Table A2. Tasks in the Florida Center for Reading Research Reading Assessment K–2 system, by grade and assessment period, 2014/15 *(continued)*

Task	Kindergarten			Grades 1 and 2			Task description
	Period 1 (early October)	Period 2 (January/ February)	Period 3 (April/ May)	Period 1 (early October)	Period 2 (January/ February)	Period 3 (April/ May)	
Comprehension							
Sentence comprehension[b]	✔	✔	✔	✔	✔	✔	Students select the one picture out of the four presented on the monitor that depicts the sentence given by the computer (for example, "click on the picture of the bird flying towards the nest").
Listening and reading comprehension	✔	✔	✔	✔	✔	✔	Students are placed into reading comprehension passages based on their word-reading performance. Each passage has five comprehension questions. Reading accuracy and fluency are also measured in the reading comprehension task.
Diagnostic							
Letter name knowledge	✔	✔	✔				Students name the letters of the alphabet.
Phoneme deletion	✔	✔	✔	✔	✔	✔	Students respond by deleting word parts and the initial letter of spoken words.
Letter sound connections	✔	✔	✔				Students identify the initial and final letters of spoken words and match them with one of three printed letters.
Word building[c]	✔	✔	✔				Students drag initial or final consonants, medial vowels, or blends to build words spoken by the computer.
Multisyllabic word reading				✔	✔	✔	Students read aloud multisyllabic words.

a. For this study, spelling was administered only to students scoring at or above the 45th percentile in word reading.

b. Not administered in grade 1.

c. Not administered in grade 2.

Source: Authors' compilation based on Foorman et al. (2015).

Table A3. Tasks in the Florida Center for Reading Research Reading Assessment 3–12 system, by assessment period, 2014/15

Tasks	Period 1 (early October)	Period 2 (January/February)	Period 3 (April/May)	Task description
Screening				
Word recognition	✔	✔	✔	Students select the word pronounced by the computer from three words displayed on the monitor.
Vocabulary knowledge	✔	✔	✔	Students read a sentence presented on the monitor that has a word missing and select the word that best completes the sentence from among three morphologically related words.
Syntactic knowledge	✔	✔	✔	Students listen to a sentence presented on the monitor and read by the computer that has a word missing and select the word with the correct verb tense, pronoun reference, or connective from among three options to complete the sentence.
Comprehension				
Reading comprehension	✔	✔	✔	Students are placed into up to three passages, each with seven to nine standards-based questions, based on their performance on the screening tasks.

Source: Authors' compilation based on Foorman et al. (2015).

Table A4. Number of English level 1 and 2 learner students in the study, by school and grade at the beginning of the school year, 2014/15

School and grade	English level 1 (*n* = 62)	English level 2 (*n* = 55)
School 1		
Grade 3	9	5
Grade 4	9	6
Grade 5	11	5
School 2		
Grade 3	3	10
Grade 4	5	6
Grade 5	5	3
School 3		
Grade 3	9	9
Grade 4	3	6
Grade 5	8	5

Source: Authors' analysis of data from the Florida Center for Reading Research Reading Assessment K–12 system in 2014/15.

Figure A1. Sample score report from the Florida Center for Reading Research Reading Assessment for an English level 1 learner student at period 1, 2014/15

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Florida Center for Reading Research Reading Assessment (FRA)
English Level 1 Assessment Period 1 Score Report

School Name:
Student Name:

BROAD SCREEN

TASK NAME	Student Ability Scores	25th Range	50th Range	75th Range
Phonological Blending	255	448-450	497-507	562-566
Letter Sounds	363	441-444	497-505	565-566
Word Reading		304-309	416-427	534-539
Vocabulary Pairs	266	348-350	398-403	451-454
Following Directions	355	353-357	432-440	515-519
Sentence Comprehension	320	451-454	497-510	562-566
Listening Comprehension*	0%	*	*	*

*There is no Ability Score for this task. Score reflects Accuracy %.

DIAGNOSTICS

SUBTEST NAME	Accuracy %
Letter Name and Sound Knowledge	100% Met Expectation
Phonological Deletion- Parts/Initial	0%
Letter Sound Connection- Initial	90% Met Expectation
Letter Sound Connection- Final	90% Met Expectation
Word Building- Initial Consonants	100% Met Expectation
Word Building- Final Consonants	100% Met Expectation
Word Building-Medial Vowels	60%
Word Building-Blends	

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Source: Authors' creation based on data from the Florida Center for Reading Research Reading Assessment K–12 system in 2014/15.

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