ISEL- 2
Illinois Snapshots of Early Literacy

Grade 2

TECHNICAL MANUAL

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INTRODUCTION

What are the purposes of the ISEL-2?

The purposes of the ISEL-2 are threefold. They are: (1) to provide assessment information for classroom instructional planning; (2) to identify students in need of an early reading intervention program; and (3) to provide pre- and post assessment data to assess progress.

What is the Illinois Snapshots of Early Literacy for Grade 2 (ISEL-2)?

The ISEL-2 is a multifaceted second grade classroom-based reading performance inventory developed in English. Administered to students individually and in groups within the classroom setting, the ISEL-2 is based on scientific reading research and sound classroom practice. Included in the ISEL-2 are snapshots on:
- Spelling
- Word Recognition
- Fluency
- Extended Response – Written Comprehension
- Passage Comprehension (Oral Reading Accuracy and Comprehension)
- Vocabulary

These ISEL-2 snapshots provide screening, diagnostic and observational information useful to teachers as they plan and develop classroom-based reading instruction. The ISEL-2 is linked to the overall goals of the Illinois Reading Initiative and reflects the National Standards for Reading and the Illinois Learning Standards. Accordingly for schools and school districts, the ISEL-2 can guide the development of curriculum as well as the evolvement of effective models for reading intervention. The two forms of ISEL 2 (Form A and Form B) allow it to be used flexibly for progress monitoring

Which Snapshots should be used for screening?

The ISEL-2 Form A has three snapshots which are recommended for fall screening (see Table 1). Each is highly reliable and valid. Combined administration time for Word Recognition and Fluency is less than 5 minutes per child, and the group administered Spelling can be given to the whole class in 10 to 15 minutes.

Recommended for fall screening:
     Snapshot A: Spelling; Snapshot B: Word Recognition; Snapshot C: Fluency.

When should the ISEL-2 be given?

The ISEL-2 provides fall 50th percentile scores (target) for ISEL-2 Form A, and end of second grade spring 50th percentile scores (target) for ISEL-2 Form B. Fall norms were calculated on testing from the beginning of the school year up to October 15th. Having two forms gives teachers the option to assess the progress of their students at other points during the school year by administering selected Snapshots from Form A to individuals or a class.

Table 1. ISEL-2 Administration

FORM A: FALL ISEL-2 Snapshots	# of items	Beginning of 2nd grade	FORM B: SPRING ISEL-2 Snapshots:	# of items	End of 2nd Grade
A. Spelling	10	√ *	Spelling	10	√
B. Word Recognition	22	√ * Screening	Word Recognition	22	√
C. Fluency	_wcpm	√ * Screening	Fluency	_wcpm	√
D. Extended Response	28	√	Extended Response	36	√
E. Passage Comprehension- Oral Accuracy	_%	√	Passage Comprehension- Oral Accuracy	_%	√
Comprehension	12	√	Comprehension	12	√
F. Vocabulary	14	√	Vocabulary	14	√

Beginning of Second Grade: Form A snapshots are appropriate for most children at the beginning of second grade. However, after giving the students Spelling, Word Recognition, and Fluency Snapshots, peruse the scores to see if any students fall at or below the 20th percentile scores on all three snapshots, or on Word Recognition and Fluency. For those students, the ISEL-K/1 (Form A or B) may be more appropriate for screening and diagnostic purposes.

End of Second Grade: Form B is appropriate for most children at the end of second grade.

Should the ISEL-2 be administered to every second grade student?

The ISEL-2 offers teachers information about each student that otherwise might require several hours or weeks of classroom observation. Ideally, therefore, to monitor progress it is recommended that all students in the class be assessed. The snapshots are designed to be administered at the beginning of the year as a pre-test and at the end of the year as a post-test. Time and other considerations may limit ISEL-2 assessment to students whose expected progress is questionable or uncertain. The first three snapshots (A-C) give excellent screening information and are recommended for all students. Snapshot E: Passage Comprehension gives teachers observational tools for assessing grade level accuracy and passage comprehension. Snapshot F: Vocabulary allows the teacher to screen the student's vocabulary knowledge in comparison to other students in the class.

How does the ISEL-2 differ from other early literacy assessments?

Most standardized reading tests fail to provide qualitative information pertinent for instructional planning. The ISEL-2 is designed to inventory the significant aspects of reading in second grade. Although teachers develop, modify and/or adapt informal assessment instruments to provide a clearer understanding of their students' needs, often these measures focus on a single element of reading development such as spelling (phonics and English spelling patterns) or oral reading accuracy, to the neglect of other important dimensions. The variety of snapshots included in the ISEL-2 provides not only an overview of the child's competencies, but also a battery of "snapshots" from which a teacher might choose for qualitative information about reading performance. Educators have developed similar assessments to be used in classrooms; nonetheless, the time required to administer the measures frequently exceeds the time available to the classroom teacher. Classroom teachers can administer the ISEL-2 within a reasonable time period, and they can obtain information about what the student knows about reading and how he or she approaches reading and reading-related tasks. Some of the snapshots can be administered to a group of children (Spelling and Extended Response) while others must be administered individually (Word Recognition, Fluency, Oral Reading Accuracy and Passage Comprehension, and Vocabulary).

Who can administer the ISEL-2?

The classroom teacher, reading specialist and other support staff can administer the ISEL- 2.

DESCRIPTION OF ISEL-2 MATERIALS

What is the format of the ISEL-2 materials?

Master copies of all materials are available on the Illinois State Board of Education (ISBE) website. There will be an ISEL-2 Form A for fall administration and an ISEL-2 Form B for spring administration. Each form will include a Student Administration Booklet and a Scoresheet Packet. The Scoresheet Summary Cover page may appear separately, so that target and watch scores can be updated easily. The components are described here:

- Student Administration Booklets for both Form A and Form B can be printed in black ink on heavy white paper and spiral bound or stapled. The stories should be bound with print pages facing each other so that the student doesn't turn pages when reading. Student Administration Booklet pages contain large, clear print and/or pictures free of background clutter. Pages are numbered and labeled with the name of the "snapshot."
- Scoresheet Packets for Form A and Form B may be printed in black ink on plain copy paper. The Scoresheet Packet should be copied for each student; the last 5 pages are used for the group assessments (Snapshot A: Spelling and Snapshot D: Extended Response). The Scoresheet Summary Page for both forms includes the 50th Percentile Score and the 20th Percentile Score for each Snapshot.
- A Teacher's Guide for ISEL-2 is available to be downloaded at the ISBE website. The Teacher's Guide provides the Rationale, Description, Administration Procedures, Scoring

Procedures, Examples and Instructional Implications for each ISEL-2 Snapshot. The Appendix includes Alignment of Illinois Language Arts Learning Standards and Benchmarks to Illinois Snapshots of Early Literacy Grade 2 as well as Teacher Resources.

- A Technical Manual for ISEL-2 is available from the ISBE Website and on the website of National College of Education of National-Louis University Reading Center. This manual provides information about the development and standardization, reliability and validity of ISEL-2.

Where can the ISEL-2 materials be obtained?

The ISEL-2 Administration Booklets, Scoresheet Packets with the Scoresheet Summary page, Teacher's Guide for Administering the ISEL-2 and the Technical Manual can be found on the Illinois State Board of Education (ISBE) website: http://www.isbe.state.il.us/, or on the website of National College of Education of National-Louis University Reading Center:

ISEL-2 DEVELOPMENT AND STANDARDIZATION

ISEL-2 Development

The ISEL-2 was designed to be easily administered by teachers in the classroom to yield a literacy assessment within a relatively brief time period (about 10-30 minutes for group administered snapshots and 1-5 minutes for each individual snapshot). Our goal was to develop and field-test the snapshots in the 2000-2001 school year. In the spring of 2001, Spelling, Word Recognition, Passage Comprehension, Fluency, and Extended Response Snapshots were field tested in twenty-two Chicago and Suburban districts by thirty-five reading specialists and teachers. Using the results of the field tests and teacher feedback, we clarified instructions and revised or eliminated items resulting in 5 ISEL-2 Snapshots (Spelling, Word Recognition, Fluency, Extended Response, and Passage Reading) for each of two forms: Form A appropriate for second graders in the fall, and Form B appropriate for students in the spring of second grade. The development of each snapshot and the refinements made are described in the third section of this manual. In 2002-2003, the ISEL-2 Snapshot F: Vocabulary was added and field-tested, and norming data on all Snapshots was collected in 2003-2004.

ISEL-2 Standardization Samples

The standardization sample was selected from across the State of Illinois so as to be representative of the State in terms of region, income, and ethnicity representing regions determined by ISBE. Proportional samples of children were obtained from each of these regions to yield a sample that was diverse in terms of urban, suburban, and rural representation. The six educational regions include: (1) the Chicago and nearby suburban area, including two new schools, (2) north middle and northwestern Illinois, (3) west central Illinois, (4) east central Illinois, (5) southwestern Illinois, and (6) southern Illinois**.**

As Table 2 shows, the standardization sample closely approximates the State of Illinois demographically in terms of race/ ethnicity.

Table 2. The 2002-2003-standardization sample for the ISEL-2 in terms of Race/Ethnicity and Free Lunch Demographic Percentages.

Group	White	Black	Hispanic	Asian	Native American	Free Lunch
ISEL-2 2002 Norming Schools	72.0	10.3	13.3	4.2	0.1	25.3
2002 State Totals	59.3	20.8	16.2	3.5	0.2	37.5
2001 State Totals	60.1	20.9	15.4	3.4	0.2	36.9
2000 State Totals	61.1	20.9	14.6	3.3	0.2	36.7
2000 U.S. Totals	62.6	12.3	12.5	3.6	0.9	----

Table 2 shows that the sample closely represents the racial and ethnic distribution characteristics of the United States as a whole with a few minor deviations. However, in comparison to the State of Illinois, there appears to be an under-representation of African American and Hispanic children in the sample. The standardization sample may also under-represent the proportion of children receiving free lunch in Illinois as our analysis of the districts we sampled suggests that in some locales there was hesitancy to apply for free lunch.

Difficulty of the ISEL-2 Snapshots

When comparing Form A (fall) and Form B (spring) scores for ISEL-2 one must take into account the differences in the assessments. The fall assessment (Form A) was constructed to reflect the typical reading and writing skills of beginning second grade students. The spring assessment (Form B) reflects literacy skills typical of the end of 2nd grade. This is true of all snapshots. Even with the differences in mind, in Table 3 one can see that the average scores were better in the spring for all snapshots, with the exception of the Extended Response. The ISEL-2 Snapshot D: Extended Response requires students to finish reading a passage silently and to write responses to prompts about the text. Form A involves a simpler task of responding to familiar story structure while the prompt in Form B requires a synthesis of information and a comparative organization in response to reading an informational narrative, a more difficult task. Nevertheless, both tasks require an orchestration of reading with understanding, knowledge of text structure and communicating through writing.

Table 3. Average percent correct on the ISEL-2 assessments by second graders in the fall and spring of 2002-2003.

ISEL-2 Snapshots	Sample	Second Grade Fall Form A	Second Grade Spring Form B
Snapshot A: Spelling (10 Items)	2002-2003	40	50
Snapshot B: Word Recognition (22 Items)	2002-2003	59	82
Snapshot C: Fluency (Words correct per minute)	2002-2003	76wcpm	98wcpm
Snapshot D: Extended Response (Form A = 28 items; Form B = 36 items)	2002-2003	43	20
Snapshot E: Passage Comprehension Oral Accuracy	2002-2003	90	95
Comprehension (12 Questions)	2002-2003	54	62
Snapshot F: Vocabulary	2003-2004	61	73

Validity of ISEL-2 Snapshots

Recent guidelines developed for educational and psychological measurement (see, for example, *Standards for Educational and Psychological Testing,* AERA, 1999) argue for a unitary conception of validity, with purpose at its core. A test may be valid for some purposes, but not for others. For example, the purpose of a Spelling Assessment is to see what students know about common spelling representations of English Language. When the spelling is analyzed the teacher knows exactly what needs to be taught. We selected the six areas of the ISEL-2 on the

basis of teacher interviews and recent research. These six snapshots yielded information teachers need to develop instruction. We consulted the research literature on reading development to insure that aspects of reading shown to be important to reading development were included (National Reading Panel, 2000; Kamil, M.L., Mosenthal, P.B., Pearson, P.D. & Barr, R. (Eds.), 2000).

The validity of all six tasks is high since the tasks were developed to tap the information that teachers desire as they plan instruction for children and on the basis of the research literature. The snapshots are performance measures, assessing items that teachers want children to learn (Spelling, Word Recognition and Vocabulary) and process measures involving aspects of reading and writing (Oral Reading Accuracy, Passage Comprehension, Fluency, and Extended Response). The snapshots engage children in tasks that are common instructional activities in second grade. Most are complex in that they require the integration of children's knowledge. Teaching to the processes involved in each of these snapshots is what we hope will occur since these are areas children need to master. Yet, those snapshots that include only a subset of the possible target items from a domain (Spelling, Word Recognition, Passage Reading and Vocabulary) are vulnerable to practice effects if teachers teach the items or passages included in the snapshots. For example, teachers can invalidate the Spelling snapshot by teaching the ten spelling words or the Word Recognition snapshot by teaching the twenty-two word recognition items. Because of this, we have developed a second form of the test for use at the end of the year.

Concerning more traditional definitions of validity, whether a test is similar to what other literacy tests measure (concurrent validity) and/or whether it predicts subsequent reading (predictive validity) may be of interest.   Kameenui (2002), in the report for the Assessment Committee on their analysis of reading assessment instruments for K-3, argues for the importance of these forms of validity, particularly predictive validity. In the final section of this manual, we discuss the validity of each of the ISEL-2 snapshots and discuss in detail the development and refinement of each snapshot individually. In addition, we present some evidence on predictive validity since these forms of validity may be of special interest for those monitoring the progress of individual children.

With respect to content validity, each snapshot was field tested and reviewed by advisory panels of practicing educators, reading specialists and university faculty and researchers. The ISEL-2 Snapshots are also correlated with the Illinois Learning Standards for Language Arts (ISBE, 1994).

Reliablity of the ISEL-2 Snapshots

To establish the reliability of the ISEL-2 as a whole and for individual snapshots, we examined the evidence from the six educational regions of Illinois in the fall of 2002 and the spring of 2003. The samples of second grade children from the six regions ranged in size from 76 to 248, with a total of approximately 730 children (more specific information is provided in the following section where individual snapshots are discussed). To establish the reliability of ISEL-2 Snapshot F: Vocabulary, we examined the evidence from the same six educational regions of

Illinois in the fall of 2003 and the spring of 2004. The samples of second grade children from the six regions ranged in size from 47 to 250, with a total of approximately 635 children (more specific information is provided in the following section where individual snapshots are discussed).

Table 4 shows the average reliability coefficients for each of the ISEL-2 Snapshots. The coefficients reported represent the average coefficients obtained for the standardization samples. As can be seen, the coefficients are acceptably high for all snapshots. ISEL-2 Snapshots A, B and C, recommended for screening purposes, have high reliability scores.

Table 4. Average fall and spring reliability coefficients (Cronbach alpha) for second grade samples on the six ISEL-2 Snapshots.

Snapshot (Number of Items)	Second Grade	
	Fall	Spring
Snapshot A: Spelling (10)	.8153	.8218
Snapshot B: Word Recognition (22)	.9482	.9205
Snapshot C: Fluency (2)*	.9660	.9598
Snapshot D: Extended Response (Form A-6 items) (Form B-33 items)	.7167	.8054
Snapshot E: Passage Comprehension Combined (2)	.8468	.7346
Oral Accuracy (2)**	.7827	.9210
Comprehension (12)	.8301	.7608
Snapshot F: Vocabulary (14)	.7894	.7299

*Derived from intertest fluency measures

 **Derived from test-retest

Establishing the 50th Percentile Scores as Target Scores

Establishing benchmarks or achievement goals for second grade children is complicated. We have chosen the term "Target Scores" to refer to the score for the 50th percentile. The 50th percentile scores are weighted. These Target Scores can help in setting class, school, or district instructional goals. Some children will achieve higher than this level, but our goal is to have all children, even those who enter school with limited literacy experiences, achieve at this level. We established these targets in two ways. Most basically, we asked, "About how well must a child be achieving at the end of each year to insure good continued progress?" In other words: What does a child need to know by the end of second grade to insure fluent reading in third and subsequent grades?

Reading Specialists. Our first effort to address these questions was to approach a group of reading clinicians about their expectation for the progress of the children with whom they had worked. We asked, "How well must a child perform for you to be confident that he or she will continue to progress, given quality classroom instruction?" There was clear agreement in expectations: by the beginning of second grade, mastery was expected in oral reading accuracy and comprehension on a beginning of second grade passage. In addition, clinicians expected the oral reading fluency of children to fall within the range of 60 to 80 words correct per minute (wcpm) at the beginning of second grade. They were less certain what to expect on the Spelling and Extended Response tests, but they expected mastery of the first grade words and some of the second grade level words included on the Word Recognition Snapshot.

Similarly, when we asked, "How well must a child perform for you to be confident that he or she will continue to progress in third grade, given quality classroom instruction," there was clear agreement in expectations. At the end of second grade the Reading Specialists expected mastery in oral reading accuracy and comprehension on the end of second grade passage. In addition, these clinicians expected the fluency of children to fall within the range of 80 to 100 wcpm. They were less certain what to expect on the Spelling (third grade list) and the Extended Response Snapshot, but they expected mastery of the second grade level words included on the Word Recognition Snapshot.

Regional Means. We also sought to define normal progress by administering the ISEL-2 to many second grade children across the state. As previously discussed, the State of Illinois is divided into six educational regions. Samples were collected from each of these regions during 2002-2003. The results for each of the six regions and the weighted means from the fall are shown in Table 5 for second graders. Table 5 shows, for example, that children in our state sample had mastered, on average, 4 words of a spelling list composed of second grade words and were able to read a beginning of second grade passage with about 91% accuracy in the fall of the second grade year. Note that fluency scores are expressed in words correct per minute (wcpm).

Table 5. Form A Fall 2002 Second Grade Weighted Means

Measure	Weighted Mean
Spelling	4.24
Word Recognition	13.55
Fluency	79.32wcpm
Extended Response	12.55
Oral Reading Accuracy	90.55
Passage Comprehension	6.59
Vocabulary (2003)	8.81

Form A Fall Means of Each Region in Second Grade Sample

Measure	REGIONS					
	1	2	3	4	5	6
Spelling	4.64	4.70	4.10	4.38	2.12	3.46
Word Recognition	14.50	13.63	14.59	14.09	8.19	11.31
Fluency	84.62	81.66	85.06	78.13	49.48	68.81
Extended Response	13.56	11.89	14.47	13.00	7.17	9.94
Oral Reading Accuracy	90.90	91.21	93.28	92.60	83.68	87.53
Passage Comprehension	6.62	6.67	7.51	7.61	4.67	5.39
Number in Sample	248	92	79	120	105	89
2003-2004 Vocabulary	8.27	9.24	9.55	10.57	7.57	6.32
Number in Sample	250	128	67	47	70	74

Similarly, the results for each of the six regions and the weighted means from the spring are shown in Table 6 for second graders. Table 6 shows, for example, that children in our state sample had mastered, on average, 5 words of a spelling list composed of third grade words and were able to read an end of second grade passage with 96% accuracy.

Table 6. Form B Spring 2003 Second Grade Weighted Mean

Measure	Weighted Mean
Spelling	5.13
Word Recognition	18.16
Fluency	100.51
Extended Response	7.08
Oral Reading Accuracy	95.53
Passage Comprehension	7.42
Vocabulary	10.37

Form B Spring Means of Each Region in Second Grade Sample

Measure	REGIONS					
	1	2	3	4	5	6
Spelling	5.67	5.02	4.78	5.54	3.68	3.91
Word Recognition	18.80	18.06	18.40	18.49	15.43	17.16
Fluency	105.31	106.68	101.88	100.46	74.30	91.12
Extended Response	7.73	7.49	6.28	7.43	5.47	5.30
Oral Reading Accuracy	96.08	95.27	96.62	96.17	93.41	92.68
Passage Comprehension	7.22	8.12	7.95	8.17	6.78	6.23
Number in Sample	237	90	76	115	91	82
2003-2004						
Vocabulary	10.42	10.66	10.48	10.69	9.91	9.05
Number in Sample	240	120	64	45	88	64

A comparison of reading specialist-established target scores with the empirically based 50th percentile scores shows a high degree of consistency (see Table 7). Clinicians were fairly consistent in their target scores for Fluency in giving a range for the norm. The 50th percentile score falls squarely in these ranges. In Spelling, the author of this assessment, Robert Schlagal (personal communication, June 3, 2002) states that a score of 4-9 indicates instructional level. It makes sense that at the beginning of the 2nd grade students would score at the lower end of instructional level on the 2nd grade word list. The clinicians predicted approximately the same. However, at the end of the year, the clinicians expected students to score higher, perhaps not taking into account that the assessment in Form B is the shortened third (3rd) grade list taken from Robert Schlagal's Qualitative Inventory of Word Knowledge (personal communication, Dec. 7, 2002; Palmer 2004). The target score of 5 does indicate a nice growth in students edging higher than at the beginning of the year in instructional level.

The target scores for Word Recognition were within the expectations of the clinicians' estimates for fall and slightly better than their estimates for spring. The empirically derived 50th percentile for passage oral reading accuracy was slightly better than what clinicians expected, however both scores were clearly at instructional level for second grade, as measured on most Informal Reading Inventories (95-98%). Fiftieth percentile scores at the Instructional Level on both passages (Form A and Form B) fairly represent the readability of these texts: Form A (fall administration) has a readability of 1.9; Form B (spring administration) has a readability of 3.0. See Individual Snapshot Development for ISEL-2 Snapshot E: Passage Comprehension for more details. However, passage comprehension norm-based target scores fell below what was expected by clinicians. It should be noted that at the time of this poll, the Vocabulary assessments were not available, explaining the NA* notation.

Table 7. 50th percentile scores (weighted) for second grade students in the State of Illinois.

ISEL-2 Snapshot Measure (number of items)	Norm-based Fall Target 50th Percentile (Form A)	Specialist Fall Target	Norm-based Spring Target 50th Percentile (Form B)	Specialist Spring Target
Spelling (10)	4	5	5	7
Word Recognition (22)	15	14	20	17
Fluency (wcpm)*	74	60-80	99	80-100
Extended Response Forms: A (28) B (36)	13	18	6	8-12
Oral Reading Accuracy 100 %	96	94	98	96
Passage Comprehension (12)	7	7-9	7	9
Vocabulary (14)	9	NA*	11	NA*

Reviewing these data, we have set the target scores at the 50th percentile as being one indicator of progress, though different districts may expect differing performance. Note that the fluency scores (*) are expressed as words correct per minute (wcpm). It is assumed that the 50th percentile scores will be adjusted as more data are collected.

Establishing 20th Percentile Scores as Watch Scores

Watch Scores are useful in identifying children who need special support or closer observation. If a child scores at or below the 20th percentile on one or more snapshots in the fall, teachers should monitor his or her initial progress closely. This is especially true of the screening snapshots (Spelling, Word Recognition and Fluency). For some, low initial performance may be due to lack of prior progress. Close observation may show the child makes steady and appropriate progress with appropriate instruction. For other children, scoring below the 20th percentile score may indicate a need for more detailed assessment, more intensive classroom instruction and/or participation in an intervention program.

We established watch scores by determining the ISEL-2 score below which 20% of the children in the Illinois regional samples achieved. These are children whose knowledge of literacy falls considerably below the 50th percentile or target scores – so much lower, that their progress should be watched. In some schools where many children achieve near the target scores when they enter second grade, there may be few children who perform at or below the watch score levels. In contrast, in some schools where many children enter school with limited exposure to literacy activities, there may be many children who will be identified by the watch scores. Watch scores are particularly useful in the fall of the year to alert teachers concerning the children they need to "keep their eye on" and who may need special tutorial support. They may also be useful at the end of the year as a method for identifying children for summer programs. Table 8 shows the weighted 20th Percentile (watch) scores for children at the beginning and end of second grade. These scores refer to a point at or below which twenty percent of the children in the state scored. It should be noted that Form A and Form B differ in difficulty. Form A reflects the type of work typical of beginning second grade, whereas Form B is comparable to the reading work of second graders at the end of second grade. Also note that the fluency scores are expressed in words correct per minute (wcpm).

Table 8. Weighted 20th Percentile (Watch) scores for second grade students in the State of Illinois.

Measure	Total # Items	Second Grade Fall 20th Percentile (Form A)	Second Grade Spring 20th Percentile (Form B)
Spelling	10	2	2
Word Recognition	22	6	15
Fluency	(wcpm)	43 wcpm	64wcpm
Extended Response	A28/B36	6	3
Oral Reading Accuracy	100%	87%	93%
Passage Comprehension	12	4	5
Vocabulary	14	6	8

At the beginning of second grade, any students scoring at the 20th percentile or below for spelling, word recognition and fluency, may require more in-depth diagnosis to determine instructional level for optimum progress and other instructional needs. Typically students scoring at the 20th percentile or below on the first three snapshots will score at the 20th percentile score or below on Oral Reading Accuracy and Passage Comprehension, and possibly Extended Response, as these last three snapshots are more difficult tasks. How the student scores on Snapshot F Vocabulary may add valuable diagnostic information.

If a student scores at or below the 20th percentile on Spelling, but scores above the 20th percentile score on Word Recognition and Fluency, then it is recommended that the teacher analyze the student's spelling errors for instructional implications. Typically, if word recognition is at or below the 20th percentile, the fluency score will also be near or below the 20th percentile.

The 20th percentile score for oral accuracy is lower than expected. In first grade 90% accuracy is usually the minimum expected because predictability of texts and pictures support meaning. However, predictability and picture support are less present in texts typical of second grade, so increased oral accuracy becomes necessary for comprehension. The "Watch" Score of 87% is definitely an indicator for the teacher to take frequent running records to make sure the child is reading texts at his/her instructional level (95-98% accuracy). A Passage Comprehension score at the 20th percentile is a good instructional need indicator, especially if Oral Accuracy scores are in the normal range. Extended Response scores at the 20th percentile score or below may indicate poor comprehension or poor communication skills in writing. Here, however, the actual product of the assessment is most valuable to the teacher in determining the depth of comprehension, text organization and communication skills. An analysis of class scores may have strong instructional implications for the teacher.

Watch Scores may be interpreted as a possible single area of need (especially if it is the only score that is at or below the 20th percentile score). However, if a student has multiple scores that fall at the 20th percentile or below, then further investigation and planning may be necessary to ensure the child's success. If large groups of students score at the 20th Percentile Score in one or more areas, a look at programs and instruction may be warranted.

Students who score a 2 or less on the Spelling snapshot at the end of second grade (Form B) may raise concerns for instructional /curriculum needs in 3rd grade, especially if Word Recognition and Fluency scores are at or below the 20th percentile scores. The Form B Spelling snapshot is a third grade list and scores of 4-9 are considered instructional. The Word Recognition snapshot for the end of the second grade is only slightly harder than the fall snapshot and incorporates words appropriate to beginning second through beginning third grade. So the 20th percentile score at the end of second grade (15) is considerably higher than the 20th Percentile score for Word Recognition in the beginning of second grade (6).

Form B Fluency Snapshot 20th percentile scores may be interpreted to mean that if a child scores 64 wcpm or less at the end of second grade there may be concern for the student's success with third grade reading tasks, especially if Oral Accuracy, Passage Comprehension and Word Recognition are also at watch score levels. If a child reads end-of-second grade texts with only a 93% accuracy there may be cause for concern, especially if comprehension is also low. A score of 5 on the Comprehension snapshot is at the 20th percentile score for the end of second grade in Illinois. A score of 3 for Extended Response on Spring Form B is the 20th percentile Score for Illinois. This score is lower than the fall Watch Score (20th percentile) because of increased difficulty of the task.

INDIVIDUAL SNAPSHOT DEVELOPMENT

ISEL-2 SNAPSHOT A: SPELLING

Background and Purpose

Developmental spelling is a useful measure because it reflects a child's ability to integrate and apply knowledge in three areas: (1) phonemic awareness, (2) knowledge of letter-sound relations, and (3) knowledge of printed letters and their formation. Regarding phoneme awareness, spelling taps both sound segmentation and blending. Each of these areas plays a central role in reading and writing development. Teachers often use spelling to gain insight into children's thinking about words, noting whether or not a child can hear the sound components of a word as well as represent them. Developmental spelling is a strong predictor of subsequent reading development (Henderson, 1985; Morris & Perney, 1984). Thus, it provides an important source of information for selecting children who may need the support of early intervention.

Test Development

In keeping with our approach of not "reinventing wheels," our first step in developing a spelling measure was to examine existing measures designed for grade two children. We were attracted to the task developed by Robert Schlagal (1992) since it included items that increased in difficulty and represented different articulatory features.

Upon researching further, we found that Robert Schlagal (personal communication, June 5, 2002) had field-tested graded short lists of words (10) (Palmer, 2004) chosen from each list of his *Qualitative Inventory of Word Knowledge* (Schlagal, 1992). This shortened list of 10 words represents the typical spelling difficulties to student learning at each level. His list choices were guided by findings of researchers (Palmer, 2004), clinical experience and prediction based upon featural analysis or words. Schlagal contends that "spelling errors reflect word knowledge only when a pupil is reasonably confident in dealing with words not yet mastered" (Schlagal, 1992, p.35). He calls that confidence level a child's instructional level. On the short lists, a score of 4-9 correct is considered instructional level.

In our fall norming of the second grade spelling list, we found that about a fourth of the students scored 7-10 correct on the fall pretest, with more than half of that number scoring 9 and 10, indicating that a good number of students had mastered the features sampled by the second grade list by the beginning of second grade. To see growth, we decided to use the grade three list for the spring posttest. The grade three list of ten words from Schlagal's *Qualitative Inventory of Word Knowledge* (personal communication, December 7, 2002) included many of the same features with some added difficulty. We predicted that an instructional level score (4-9) on the third grade list would be appropriate to an end of second grade assessment of spelling.

Since many school districts begin to give traditional spelling tests in second grade, we decided that this assessment could be given to a group of students. We have used a method of assessment that is traditionally used in giving spelling tests: say the word, use it in a sentence,

say the word. Students write the word on the form provided. They are instructed to write the sounds they hear or what they think the word looks like to tap both auditory and visual memory.

Scoring Approach

This assessment is scored traditionally, counting the number of words written correctly, marking them with a plus (+). Teachers are asked to transfer the plus marks and misspellings to Scoresheet Page 1 to facilitate examining student control of representative features.

Common error types at primary grades are letter omissions such as preconsonantal nasals (plat for plant) and vowel markers (tak for take), inventive categorization of sound groups (jras for dress), and overgeneralization of vowel markers (chaise). A score of 4-9 indicates instructional level on both pre and posttests.

Difficulty of the Task

The Spelling Snapshot was administered to children in the fall and spring of second grade. Table 9 shows the results from this administration in terms of mean raw scores, standard deviations and percent correct for the fall (Form A) and spring (Form B).

Table 9. Means, standard deviation and percent correct on the Spelling Snapshot for children in the fall and spring of second grade.

Spelling	Fall (Form A)			Spring (Form B)		
	Mean	**S.D.**	**% Correct**	**Mean**	**S.D.**	**% Correct**
Second Grade 2002-03 (*N*= 733)	4.04	2.73	40	5.00	2.96	50

A score of 4 at the beginning of second grade shows that many children are able to represent some second grade spelling patterns. Children on average know consonants and some common beginning diphthongs (th, sh, ch); many represent vowels correctly, and some are spelling conventionally, using vowel markers and inflected endings. The mean score matches the beginning of instructional level (4-9) as defined by assessment author, Robert Schlagal(1992). By the end of second grade, children on average are able to represent more advanced spelling patterns, including complex vowel and consonant combinations, some with silent letters. As can be seen the median score moves up to 50% of the third grade list correct by the end of second grade. This score is within the instructional level (4-9)for third grade, as defined by Schlagal(1992). Expected errors normally will be confusions in vowel combinations, consonant combinations, and doubling rules before adding inflected endings.

Table 10 shows the percentage of students who spelled each word correctly on Form A and B. This table illustrates the difficulty of orthographic patterns in the second grade. Note that Form B is a third grade list. For instructional purposes it is helpful to analyze student errors, as well as

ascertain appropriate instructional level for spelling. Aids for analysis of each list are available in the Appendices of the ISEL-2 Teacher's Guide.

Table 10. Form A and Form B spelling words and the percent of students that spelled them correctly:

Fall Form A Words	% Correct	Spring Form B Words	% Correct
cool	80	trust	80
thick	44	batter	56
year	55	scream	41
stuff	29	count	70
dress	43	knock	51
chase	41	caught	25
short	60	noise	43
queen	34	careful	45
trapped	4	stepping	38
shopping	15	chasing	51

Validity

The Spelling Snapshot is a performance measure tapping whether children can segment words into phonemes, match the phoneme with an acceptable letter, produce the letter, and spell conventionally. Because these operations are essential to spelling, we argue for the face and content validity of the spelling task. That is, if a teacher wishes to know whether a child can spell representing second grade spelling patterns, this snapshot provides this information.

Much of the knowledge used for spelling, such as phonemic awareness and letter-sound knowledge, are also theoretically and practically implicated in learning to read. Thus, we asked the question: Does good performance on this snapshot predict later successful reading development? Theoretically, we posited a reciprocal relationship between reading and writing. The knowledge underlying one aspect of literacy is tapped in the reciprocal process.

Table 11 shows the extent to which good performance on ISEL-2 Snapshot A: Spelling at the beginning of the year (Form A) is associated with good performance on other early literacy measures for second grade children at the end of the school year (Form B). As can be seen, the coefficients are substantial for the more complex literacy measures: spelling, word recognition, and fluency. The highest correlations for prediction are between fall spelling and success in Fluency and Word Recognition. These are significant. This corroborates our assumption that if

a child scores at or below the 20th percentile on spelling, word recognition and fluency in the fall, this is a red flag for the teacher to take further steps to diagnose and plan for that child's instruction. Oral reading, extended response for comprehension and passage comprehension also have a correlation. In any case, these results show that this Spelling measure is a good predictor of later reading and writing.

Table 11. Correlation coefficients showing the relation between Spelling measured in the fall and other areas of literacy measured in the spring of second grade.

Spelling Fall	Spelling Spring Form B	Word Recognition Spring Form B	Oral Reading Accuracy Spring Form B	Passage Comprehension Spring Form B	Fluency Spring Form B	Extended Response Spring Form B
Form A $N = 688$	0.77	0.64	0.47	0.40	0.69	0.41

Table 12. Concurrent and predictive validity correlations between ISEL-2 Snapshot A: Spelling and the Stanford Achievement Test, the Gates-MacGinitie Reading Test and the Iowa Tests of Basic Skills (ITBS) for primary grades.

ISEL-2	Fall Stanford Word Reading	Fall Stanford Total Reading	Spring 2003 Gates-MacGinitie Reading Total n=37	Spring ITBS Reading n=27	Spring ITBS Vocabulary n = 27
Concurrent Validity **Fall 2002 Form A Spelling**	Fall 2002 $n = 47$ 0.74	Fall 2002 $n = 47$ 0.74		(End of First Grade2002) 0.65	(End of First Grade2002) 0.68
Spring 2003 Form B Spelling			0.77	(Spring 2003) 0.80	(Spring 2003) 0.75
Fall 2003 Form A Spelling	Fall 2003 n=51 0.62	Fall 2003 n=51 0.73			
Predictive Validity **Fall 2002 Form A Spelling**			0.75	(Spring 2003) 0.68	(Spring 2003) 0.84

Reliability

Does the snapshot provide a stable and consistent measure of Spelling? To address this question, we examined the evidence from the six regions shown in Table 13.

Table 13. Fall and spring reliability coefficients (Cronbach alpha) for second samples on Spelling

ISEL-2 Snapshot A Spelling	FALL FORM A		SPRING FORM B	
Second Grade	*n*	Cronbach Alpha	*n*	Cronbach Alpha
Region 1 (2002-2003)-Rep.	248	0.82	237	0.78
Region 2 (2002-2003)	92	0.80	90	0.81
Region 3 (2002-2003)	79	0.81	76	0.83
Region 4 (2002-2003)	120	0.80	115	0.84
Region 5 (2002-2003)	105	0.79	91	0.82
Region 6 (2002-2003)	89	0.76	82	0.83
Average Coefficient		0.80		0.82
Regions 1-6 (2002-2003)	733	0.82	691	0.82

As can be seen in table, the reliability of both Form A and Form B is 80% or slightly higher. These results show that the coefficients for the ten-item snapshot are sufficiently high that teachers can have confidence in the stability of the results.

ISEL-2 SNAPSHOT B: WORD RECOGNITION

Background and Purpose

Teachers and diagnosticians commonly use word recognition in isolation as one measure of total reading performance because it is highly correlated with general reading proficiency (Juel & Roper-Schneider, 1985; Costigan, Munoz, Porter & Quintana, 1989; Escamilla, Andrade, Basurto & Ruiz, 1996; Johns, 1997).   Quick and automatic word recognition ability is associated with reading fluency. When young readers develop a repertoire of words they can identify quickly and effortlessly, this set of words helps to "anchor" their reading and to promote self-monitoring (Clay, 1993b). As the number of sight words increases, less attention needs to be devoted to word recognition problem solving. Fluency is enhanced and reading is supported by a growing number of known words. A parallel process occurs in writing.

In Snapshot B, the child is expected to read a list of 22 words that increase in difficulty. The goal of Snapshot B is to determine the number of words a child can <u>recognize</u>, not as a measure of decoding skill. Therefore, if a child decodes a word in a halting manner and does not appear to actually recognize the word as a single unit (as compared to a collection of sounds), this word is marked as incorrect. However if a student starts to sound out the beginning of a word, then immediately recognizes it and says it as a whole word, it is marked correct.

 The Snapshot B Form A(fall) and Snapshot B Form B(spring) contain words that are approximately of the same difficulty and each starting with easy words which progress to more difficult words. Because the lists span first to third grade it is not a list of the 22 most frequent second grade words but a sampling of frequent words at each level. The list not only contains words that are frequent in text but also words that are commonly recognized by young readers.

Selecting a Corpus of Words for the Field Test

ISEL-2 work began with Word Recognition using the data base corpus of words from ISEL-K/1 that weren't used. The original data base corpus of 350 words was constructed by entering in words from the first, second and third grade lists from the following sources:

- *Basic Reading Inventory* Word Lists (which embeds the revised Dolch list) (Johns, 1999)
- Word Lists from the Observational Survey of Early Literacy (Clay, 1993a)
- Darrell Morris Howard Area Tutoring List and ERSI List (Morris, 1999)
- Harris & Jacobson Basic Elementary Reading Vocabularies (1982)
- PALS Early Reading Screening List (Invernizzi, Robey & Moon, 2000)
- McRel 100 Most Frequent Word List (Bodrova, Leong & Semenov, 1998)
- CIERA list of 100 most frequent words. Adapted from Carroll, J.B., Davies, P. & Richmond, B. (1971). *Word frequency book*. Boston: Houghton Mifflin.

Words were added from Level (grade) 2 and Level 3 lists of the following:
- Pat Cunningham's Word Wall Words (Cunningham, 1995)
- The Dolch List (Dolch, 1936)
- Qualitative Reading Inventory III (Leslie & Caldwell, 2001)
- Durrell Analysis of Reading Difficulties, 3rd Edition (Durrell & Catterson, 1980)

- SanDiego Quick Gauge List (LaPray & Ramon, 1969; in Ekwall & Shanker, 1988)

Selecting words that appeared on three or more lists made a first cut. The list was then filled in with those words appearing on at least two lists. Of these 80 words 10 words appeared on three or more lists. The remaining 70 words were then categorized by parts of speech. A list of 40 words resulted representing various parts of speech, but leaning to more concrete nouns and verbs. To eliminate inappropriate words, 22-second grade teachers rated the words. The teachers were asked to indicate which words were the most appropriate words for second grade and to scale them in difficulty. The 40 words deemed most appropriate were selected for the first cut, leaving a list of 30 alternative words. This list was administered to 84-second grade students in 7 schools from 4 districts in the fall of 2001. With these results we divided the words into three categories of difficulty. Most words fell into the easy to middle category. We then field tested the 30 words from the alternative list with the same group of students to find 10 words that would fall into the difficult category for second grade. To find words that would represent those three categories for Form B given at the end of second grade, we used 30 third grade words gathered from the sources above. These words were field tested with third grade students in the same schools in early fall of 2001. From these field test results we added words appropriate for the end of second grade to make a set of 40 words.

Field Test Refinement

The resulting list of 40 words was administered to 150-second graders in April of 2002 in schools affiliated with the Early Reading Intervention Network (ERIN). ERIN is a network of reading professionals implementing early reading interventions in school districts in suburbs surrounding Chicago, IL. The group meets several times a year at the DuPage Regional Office of Education. The results of this field test conducted with the help of ERIN were used to confirm the difficulty of the words and to comprise our norming corpus of words. In the fall of 2002 all 44 chosen words were used in the first standardization assessment.

Student responses were used to identify words to be used for Form A (fall) and Form B (spring). A list of 44 words representing easy, middle, and difficult levels seemed to emerge. After the fall 2002 testing, words were split into two sets ranging from easy to difficult according to the difficulty on the fall testing (see % Correct in Fall, Table 14), with Form B being slightly more difficult.

Seven to eight words in each list were known by two-thirds of the second graders in the fall of the year. Half of the second graders tested recognized 16 to 18 words in each list of 22 words in the fall of the year. Our goal was to include in the final list a sufficient number of easy (7-8), middle (9-10) and difficult (4-6) words in each list. This assessment would then not frustrate less fluent readers, sufficiently challenge better readers, while indicating those students who may need additional intervention to succeed in reading.

Along with frequency of recognition, the concreteness and syntactical form of words have been determined to be powerful factors in word recognition (Schwanenfluegel & Akin, 1994). Thus, the concreteness and syntactical form of the words, as well as recognition frequency, were considered in comprising a balanced list and in ordering the final list. After careful study of the

assessment evidence and the evaluations of teachers, a representative subset composed of 22 words for each Form A and Form B was selected for inclusion on the final version of the word recognition snapshot. See Table 14.

Table 14. The percentage of second graders (n733 in fall; n691 in spring) who identified words correctly during the norming period 2002-2003.

Form A Fall Words	% Correct in fall	Correlation with total score- Fall	% Correct in Spring	Form B Spring Words	% Correct in fall	% Correct in Spring	Correlation with total score- Spring
your	96	.231	99	house	96	97	.276
teacher	88	.534	99	many	81	95	.428
would	81	.578	96	behind	67	93	.624
always	81	.652	96	perfect	64	89	.710
where	78	.489	94	could	81	96	.354
chew (3)	67	.774	89	weather	60	89	.680
taken	67	.733	87	change	63	88	.665
third	65	.796	92	know	79	93	.265
stream (3)	64	.748	83	crayon	67	90	.631
insect	62	.779	88	afraid	54	84	.736
wrote	61	.780	86	these	68	90	.649
able	58	.776	88	impossible (3)	61	86	.768
promise	57	.758	81	reason (3)	53	81	.762
discover (3)	56	.799	86	cabin (3)	58	82	.649
strain	53	.788	82	break	59	83	.660
program	53	.789	79	force (3)	54	76	.734
magical (3)	49	.762	81	pound (3)	42	67	.584
coast (3)	44	.658	64	beyond (3)	50	76	.644
celebrate (3)	38	.736	73	surface (3)	39	72	.731
example (3)	35	.646	64	tongue (3)	32	66	.684
conductor (3)	33	.678	61	magazine (3)	37	66	.650
curious (3)	21	.553	41	though (3)	16	40	.527

Table 14 shows the degree to which each of the selected items correlates with the total word recognition scores based on the 22 items. These correlations are highest for the words in the middle of the range of difficulty because the variability among children's responses is greater.

They are somewhat lower, but at an acceptable level for the very easiest items and the most difficult items. The first two words on each list are from first grade lists.

Difficulty of the Task

The Word Recognition Snapshot was administered to children in the fall and spring of second grade. Table 15 shows the results from this administration in terms of mean raw scores, standard deviations and percent correct for the fall (Form A) and spring(Form B).

Table 15. Means, standard deviations and percent correct on the Word Recognition Snapshot for children in the fall and spring of second grade.

Word Recognition	Fall Form A (*N*=733)			Spring Form B (*N*= 691)		
	Mean	**S.D.**	**% Correct**	**Mean**	**S.D.**	**% Correct**
Second Grade 2002-2003	13.05	6.96	59%	17.97	4.90	82%

A score of 14 at the beginning of second grade shows that many children are able to recognize second grade words. By the end of second grade a score of 18 shows that many children are able to recognize most second grade words and many third grade words as well.

Validity

The face and content validity of Word Recognition is enhanced by the way the list was put together with words spanning first through third grade level in difficulty. If a teacher wishes to know whether a child can identify words appropriate to second grade reading, this snapshot provides this information. Yet since sampling is involved, it would be possible for a teacher to mar the content validity by teaching to the test.

Does good performance on this snapshot predict later successful reading development? To recognize a word, the child must either know the word on the basis of sight, or have the letter-sound knowledge and blending skill to identify the word. Because fluent word recognition is a central component leading to fluency passage reading (Cunningham & Stanovich, 1998) we argue for the face and content validity of the word recognition task. We would anticipate that children who do well on the Word Recognition Snapshot would also do well on a reading fluency measure and passage comprehension. However, passage comprehension at second grade level becomes more dependent on background knowledge, experience and instruction.

Table 16 demonstrates the extent to which good performance on ISEL-2 Snapshot B: Word Recognition at the beginning of the year (Form A) is associated with good performance on other early literacy measures for second grade children at the end of the school year (Form B). As can be seen, the coefficients are substantial for the literacy measures of spelling, word recognition and passage reading fluency. The more complex measure of passage comprehension and extended (written) response to reading may be more dependent upon instructional experience. In

any case, these results show that this Word Recognition measure is a good predictor of later reading and writing.

Table 16. Correlation coefficients showing the relation between Word Recognition measured in the fall and other areas of literacy measured in the spring of second grade.

Word Recognition Fall Form A	Spelling Spring Form B	Word Recognition Spring Form B	Oral Reading Accuracy Spring Form B	Passage Comprehension Spring Form B	Fluency Spring Form B	Extended Response Spring Form B
Form A $N = 688$	0.74	0.81	0.60	0.51	0.81	0.44

Table 17. Predictive and concurrent validity coefficients between ISEL-2 Snapshot B: Word Recognition and the Stanford Achievement Test, the Gates-MacGinitie Reading Test and the Iowa Tests of Basic Skills (ITBS) for primary grades

ISEL-2	Fall Stanford Word Reading	Fall Stanford Total Reading	Spring 2003 Gates-MacGinitie Reading Total n=37	Spring ITBS Reading $n = 27$	Spring ITBS Vocabulary $n = 27$
Concurrent Validity **Fall 2002 Form A Word Recognition** **Spring 2003 Form B Word Recognition** **Fall 2003 Form A Word Recognition**	**Fall 2002** $n = 47$ 0.82 **Fall 2003** $N = 51$ 0.74	**Fall 2002** $n = 47$ 0.73 **Fall 2003** $N = 51$ 0.83	 0.81	(End of First Grade) **Spring 2002** 0.81 **Spring 2003** 0.89	(End of First Grade) **Spring 2002** 0.80 **Spring 2003** 0.75
Predictive Validity **Fall 2002 Word Recognition**			0.79	(Srping 2003) 0.79	(Spring 2003) 0.82

Reliability

Does the snapshot provide a stable and consistent measure of Word Recognition? To address this question, we examined the evidence from the six regions shown in Table 18. As can be seen in Table 18, the reliability coefficients are high. These results show that the coefficients for the Word Recognition Snapshot B on Form A (fall) and Form B (spring) are sufficiently high that teachers can have confidence in the stability of the results.

Table 18. Fall and spring reliability coefficients (Cronbach alpha) for Snapshot B-Word Recognition with second grade students.

ISEL-2 Snapshot B Word Recognition	FALL FORM A		SPRING FORM B	
Second Grade	*n*	Cronbach Alpha	*n*	Cronbach Alpha
Region 1 (2000-2001)-Rep.	248	0.94	234	0.89
Region 2 (2001-2002)	92	0.95	90	0.92
Region 3 (2001-2002)	79	0.94	75	0.93
Region 4 (2001-2002)	120	0.93	115	0.91
Region 5 (2001-2002)	105	0.96	91	0.93
Region 6 (2001-2002)	89	0.94	82	0.94
Average Coefficient	733	0.94	691	0.92

ISEL-2 SNAPSHOT C: FLUENCY

Background and Purpose

The ability to read fluently (at a good rate, with good accuracy, proper intonation and phrasing) is highly correlated with many measures of reading competence (Shinn, 1989; Strecker, Roser & Martinez, 1998). Teachers have always known that it is important to listen to their students read orally to ascertain how effectively the student integrates strategies and skills to read competently with understanding. For the reader, fluency requires good decoding skills, the strategies to orchestrate these in reading real text, and comprehension to monitor what is being read to make sure it sounds like language (Blachowicz, Sullivan & Cieply, 2001). Researchers (Shinn,1989; Hasbrouck & Tindal,1992) and teachers have been using unrehearsed 1-minute fluency assessments for several years, finding them useful as quick screening and monitoring assessments.   Listening to students read and charting their development in fluency is a way to measure the effect of instruction. Unlike most standardized measures that only show large changes in behavior, fluency measurement is sensitive to small increments of improvement.

As professionals who had experienced the efficacy of using one-minute fluency assessments in elementary classrooms we were certain that a similar fluency measurement should be included in the ISEL-2 Snapshots.   However, we were uncertain as to whether it was important to include a fluency measure on a longer passage, such as the oral reading passage. So during the first trials, we included fluency rate measurements on the oral reading passages as well as on the 1-minute fluency snapshots.

Test Development

Originally five passages were written, field tested and revised for ISEL-2. Fonts and spacing were found to be critical to student success and changes were made for a larger field test. In a field test with 150-second graders in April 2002 students were given all passages to read and fluency rates were calculated in *wpm*. The passages closely resembled the length of stories students would read in school, a positive point. However, because of time constraints, it was determined that reading several leveled passages in one testing period was impractical for 2nd grade. The four passages most typical of second grade reading were chosen (see ISEL-2 Snapshot E, Table 27 for more detail on reading passages). Two were to be used at the beginning of the year representing early second grade literacy levels in Form A (Flesch-Kincaid readabilities: 1.9 and 2.2) and two representing later second grade literacy levels (Flesch-Kincaid readabilities: 2.8 and 3.0) to be used in Form B.   The easier passage of both pairs was used for a one-minute fluency measurement (Fluency 2), which became our Fluency Snapshot. Fluency rate was also measured on the second passage, the oral reading passage, based on timing the complete passage (Fluency 1). Both fluency scores were calculated in words correct per minute (wcpm).

Scoring Approach

The Fluency 1 (whole passage) score was obtained by using an individual timed, unrehearsed oral reading of a complete passage: *Lisa's New Pet* (Flesch-Kincaid readability 2.2) in Form A;

The Kangaroo's Pouch (Flesch-Kincaid readability 3.0) in Form B. Errors and self-corrections were marked during the reading. Reading behaviors counted as errors were: words omitted, substituted, mispronounced, words inserted and words in skipped lines of print. Proper names were counted as an error only once. Self-corrections were not counted as errors and students were not told words but asked to do their best and read on. Errors were counted and subtracted from the total number of words and multiplied by 60. The total time it took to read the passage was translated into seconds. The formula used for Fluency 1 was calculated in words correct per minute (wcpm): [((total # of words – errors) x 60) / #seconds to read text].

The Fluency 2 score was obtained from an individual 1-minute, timed, unrehearsed reading of *Snow Day!* (Flesch-Kincaid readability 1.9) in Form A, and from an unrehearsed 1-minute timed reading of *A Giant Panda's Story* (Flesch-Kincaid readability 2.8) in Form B. Errors were marked as the student read aloud. Counted as errors were: omissions, substitutions, mispronunciations, words told. Line errors were corrected right away and marked as a "told" error. Words were provided and marked "told" after 3 seconds of waiting. Insertions were not counted as errors because they add a word and take up time, already penalizing the student. Self-corrections were not errors. Fluency 2 was calculated in words correct per minute (wcpm): (number of words read – errors = wcpm).

Fluency 2 became our Fluency Snapshot C. The high reliability between the two fluency scores (see Table 21) indicates that a one-minute fluency snapshot reliably measures fluency, scores being consistently only slightly higher than scores on complete passages.   Time and ease of use were a major factor in making this decision. Teachers still have the option to time oral reading passages, but the Fluency Snapshot is a quick, easy and reliable screening tool. These findings corroborate those of other researchers (Shinn, 1989; Hasbrouck & Tindal, 1992).

Difficulty of the Task

Fluency measures for both Fluency 1 and Fluency 2 were administered to children in the fall (Form A) and spring (Form B) of second grade. Table 19 shows the results from this administration in terms of mean raw scores, standard deviations, and words correct per minute for the fall (Form A) and spring (Form B).

Table 19. Means, standard deviations and Words Correct Per Minute on Fluency for children in the fall and spring of second grade.

Fluency	Fall Form A ($n = 733$)			Spring Form B ($n = 691$)		
Second Grade 2002-2003	**Mean**	**S.D.**	**WCPM**	**Mean**	**S.D.**	**WCPM**
Fluency - 1	61.97	39.00	62	87.75	36.94	88
Fluency –2	76.28	40.59	76	98.54	43.11	98

Typical reading rates for second grade of 50 to 100 wcpm, cited by Barr, Blachowicz, Katz, & Kaufman (2002) were derived from many researchers: Morris, (1999); Pinnell, Pikulski, Wixson, Campbell, Gough & Beatty, (1995); Hasbrouck & Tindal (1992). Our fall mean (Form A) falls in the middle of this range mainly because the text readability is consistent with end of first grade to beginning second grade. Therefore, the average second grader reading on grade level should be able to read ISEL-2 Snapshot C: Fluency, Form A, at a rate of 65 to 79 wcpm. However, given the research cited, a score of 50 wcpm or above would not be a great cause of concern. In the spring of second grade, average students reading on grade level should be able to read the ISEL-2 Snapshot C: Fluency, Form B, at 90-101 wcpm. This range is consistent with the 50th percentile score of 94wcpm from the study of Hasbrouck and Tindal(1992). Hasbrouck and Tindal cite 65 wcpm as the 25th percentile in spring, which is consistent with the 20th percentile for ISEL-2 Snapshot C: Fluency, Form B, which is 64 wcpm.

Validity

The Fluency Snapshot is a performance measure tapping whether children have mastered the component print and comprehension processing skills enough to read grade level texts, information that is critical to appropriate instructional planning for students.

We asked the question: Does good performance on this snapshot predict later successful reading development? Theoretically, we posited a reciprocal relationship between reading and writing. The knowledge underlying one aspect of literacy is tapped in the reciprocal process.

Table 20 shows the extent to which good performance on ISEL-2 Snapshot C: Fluency at the beginning of the year (Form A) is associated with good performance on other early literacy measures for second grade children at the end of the school year (Form B). As can be seen, the coefficients are substantial for the more complex literacy measures: spelling, word recognition, and passage reading. The correlation between oral comprehension and written comprehension as measure in the extended response are the lowest. One must ask the question: Is the low correlation due to lack of experience of the reader in such comprehension activities or due to a fault in the assessment instrument? One has to admit there is a higher correlation, predictive and concurrent, with passage reading on Stanford and Iowa Tests of Basic Skills (See Table 21). It should be noted that reading passages on both of these tests are short and answers are multiple choice. The ISEL-2 passage reading consists of a much longer passage and the student must formulate answers to questions.

Table 20. Correlation coefficients showing the relation between Fluency Snapshot C measured in the fall and other areas of literacy measured in the spring of second grade.

Fluency Fall Form A	Spelling Spring Form B	Word Recognition Spring Form B	Oral Reading Accuracy Spring Form B	Passage Comprehension Spring Form B	Fluency Spring Form B	Extended Response Spring Form B
Snapshot C Fluency $n = 686$	0.68	0.68	0.51	0.47	0.88	0.50

Table 21. Predictive and concurrent validity coefficients between ISEL-2 Snapshot C: Fluency and the Stanford Achievement Test, the Gates-MacGinitie Reading Test and the Iowa Tests of Basic Skills (ITBS) for primary grades

ISEL-2	Fall 2002 Stanford Word Reading $n = 47$	Fall 2002 Stanford Total Reading $n = 47$	Spring 2003 Gates-MacGinitie Reading Total $n = 37$	Spring ITBS Reading $n = 27$	Spring ITBS Vocabulary $n = 27$
Concurrent Validity **Fall 2002 Form A Fluency** **Spring 2003 Form B Fluency**	0.67	0.70	0.80	(End of First Grade) **Spring 2002** 0.72 **Spring 2003** 0.76	(End of First Grade) **Spring 2002** 0.83 **Spring 2003** 0.73
Predictive Validity **Fall 2002 Form A Fluency**			0.82	**Spring 2003** 0.71	**Spring 2003** 0.79

Reliability

Does the snapshot provide a stable and consistent measure of fluency? To address this question, we examined the evidence from the six regions shown in Table 22.

Table 22. Fall and spring reliability coefficients (Cronbach alpha) for second samples on Fluency.

ISEL-2 Snapshot C- Fluency	FALL FORM A		SPRING FORM B	
Second Grade	*n*	Cronbach Alpha	*n*	Cronbach Alpha
Region 1 (2000-2001)-Rep.	248	0.97	237	0.96
Region 2 (2001-2002)	92	0.95	90	0.97
Region 3 (2001-2002)	79	0.96	76	0.93
Region 4 (2001-2002)	120	0.97	115	0.91
Region 5 (2001-2002)	105	0.96	91	0.97
Region 6 (2001-2002)	89	0.96	82	0.97
Average Coefficient		0.96		0.95
	733		691	

As can be seen in Table 22, the reliability coefficients are high. These results show that the coefficients for the two-item snapshot are sufficiently high that teachers can have confidence in the stability of the results.

ISEL-2 SNAPSHOT D: EXTENDED RESPONSE

Background and Purpose

Research indicates that reading and writing are interrelated, both dependent on similar knowledge, skills and strategies (Kucer, 1985; Shanahan, 1984; Tierney & Pearson, 1983). Examples of students' writing in response to stories read can provide insights into students' concepts of print and written texts, their strategies for constructing meaning, and their grasp of text and story structure, organization, vocabulary concepts and related comprehension capabilities (Barr, Blachowicz, katz & Kaufman, 2002).

After the ISEL-2 trials in the spring of 2002, researchers, reading specialists and teachers, respected in their field, suggested a writing component be included in the ISEL-2. An extended written response to reading was the natural outgrowth of this input, one that might encourage classroom activities in extended written response and provide more information on student comprehension. This glimpse into a student's understanding is an informative tool for instruction in comprehension and written communication.

We examined the Illinois State Goals and Learning Standards (ISBE, 1994) that included:

STATE GOAL 2: Read and understand literature representative of various societies, eras and ideas.
> **A. Understand how literary elements and techniques are used to convey meaning.**
> **2.A.1a** Identify the literary elements of theme, setting, plot and character within literary works.
> **2.A.1b** Classify literary works as fiction or nonfiction.
> **B. Read and interpret a variety of literary works.**
> **2.B.1a** Respond to literary materials by connecting them to their own experience and communicate those responses to others.
> **2.B.1b** Identify common themes in literature from a variety of eras. Make connections across texts and to their own knowledge and experience.

STATE GOAL 3: Write to communicate for a variety of purposes.
> **B. Compose well-organized and coherent writing for specific purposes and audiences.**
> **C. Communicate ideas in writing to accomplish a variety of purposes.**
> > **3.C.1a** Write for a variety of purposes including description, information, explanation, persuasion and narration.

These state goals and learning standards led us to include two types of passages and written extended response questions:
- Form A is a response to typical narrative story structure.
- Form B is a response to an informational narrative requiring students to search for and categorize details related to the topic.

ISEL-2 Snapshot D: Extended Response is intended to measure a child's comprehension of text through written response to questions or prompts as one measure of comprehension.

Additionally it provides a sample of the student's unedited writing, which may indicate the child's comfort and competency using written language. For the teacher, Snapshot D carries strong instructional implications for reading comprehension, using text structure to comprehend and communicate about text.

Test Development

For the beginning of second grade a simple narrative, a story form most familiar to first and second graders, was chosen for Snapshot D: Extended Response, Form A. We began field tests on the extended response for "Snow Day!" Teachers identified students who were average readers, above average readers and below average readers. Students were taken in small groups to read and respond to the extended response questions for this story. From the structure of the story, and from students' written responses, a scoresheet was developed. A panel of teachers read students' written responses and used the scoresheet to score them. The scoresheet was revised several times to clarify the scoring for ease of use and for consistency among scorers. Directions for scoring were written and directions for administration were formulated to replicate a class or reading group lesson. Teachers are given the choice of introducing this snapshot to a whole class or to small groups of students. No help is to be given with the reading of the passage.

Informational content was chosen for Form B. Second grade curricula in Science calls for a study of animals, in which students categorize information regarding description, habitats, food, prey, habits, etc. Snapshot D, Form B, is a response to reading an informational narrative called, "A Giant Panda's Story." In the Extended Response students are asked, "What are the ways the Giant Panda cub changes in the first year of his life? Write about each change, giving examples or details for each change." Form B was field tested with two classes of beginning third grade students at the beginning of September, 2002. These students represented similar skill levels as students at the end of second grade when this assessment would be given. ISEL-2 Snapshot D: Extended Response, Form B, was given to each third grade class by the author, using the instructions included in the Scoresheet Packet. Students were asked to read "A Giant Panda's Story" silently and to answer the question in writing. While this reading selection deals with non-fiction information, it is written in a narrative style. The task calls for students to search for and select details that elaborate changes in the giant panda cub over a year's time. This task entails either stating a change as a topic and supporting it with details or implying change by comparing details or descriptions that indicate change during this period of time. We developed a scoresheet showing the changes as main ideas and details that elaborate each change.

From these responses of second graders in our norming population, it became clear that the scoresheet needed to be revised to clarify the scoring to include comparisons that implied the main ideas involved. Snapshot D was then rescored using this new scoresheet. This scoresheet more accurately gave credit for understanding main ideas and fulfilling the prompt, as well as giving some credit for mentioning random details in a simple retelling.

Scoring Approach

We attempted to use a rubric at first, patterned after the rubric used for Extended Response on the Illinois Standards Achievement Test (ISAT) (ISBE, 2002). However, it was difficult to achieve a high level of consistency in scoring. Our attempts to make the rubric more specific evolved into what we now call a scoresheet. Each scoresheet is based upon key concepts and details or elaboration. These forms increased interrator reliability over that achieved with the first rubrics used. The scoresheets for both Form A and Form B were further refined with input from a panel of reading specialists and professionals.

ISEL-2 Snapshot D Form A key concepts are scored five points each because they represented parts of the story critical to comprehension (goal, problem, solution/ending). Important details (main character names and evidence of problem) are scored two points each. Other details common in student elaboration are scored 1 point. Subtotals are given for key concepts and details, the sum of which is entered as the total score. The highest possible score is 28.

ISEL-2 Snapshot D Extended Response Form B scoring is lengthier, due to the nature of the passage. It includes main ideas that score 1 point each if stated explicitly in the writing **or** if implied by stating two contrasting details that signify that main idea. These contrasting ideas are noted by arrows on the scoresheet. To give students credit for elaboration, we felt it was important to include all pertinent details. Main ideas and details are scored as 1 point unless derived from inference. Three common inferences are included on the scoresheet, each scoring 2 points. The highest subtotal for main ideas equals 5. Because of the number of pertinent details which, when contrasted, might imply each main idea, many details were included. The subtotal of details, including extra points for inferences, equals 31. The highest possible score for ISEL-2 Snapshot D: Extended Response, Form B, is 36.

Difficulty of the Task

ISEL-2 Snapshot D: Extended Response was administered to children in the fall (Form A) and spring (Form B) of second grade in 2002-2003. Table 23 shows the results from this administration in terms of mean raw scores, standard deviations and percent correct for Form A (fall) and Form B (spring).

Table 23. Means, standard deviations and percent correct on ISEL-2 Snapshot D: Extended Response for children in the fall and spring of second grade.

Extended Response	Fall Form A			Spring Form B		
	(*n* =733)			(*n* = 691)		
	Mean	**S.D.**	**% Correct**	**Mean**	**S.D.**	**% Correct**
Second Grade 2002-2003	12.00	7.31	43	6.90	5.01	25

A score of 13 at the beginning of second grade shows that many children are able to represent their ideas about comprehension in writing. Children on average express some key concepts of a

narrative story and include some elaboration. The mean for spring is lower because the task is more complex. By the end of second grade, while children could include many details in writing a retelling, a score of 7 shows that second graders on average had some difficulty contrasting details to elaborate informational content related to main ideas. This, also, may be reflective of student experience (or lack of experience) reading and writing about informational text.

Validity

The Extended Response Snapshot is a performance measure tapping whether students can communicate their understanding of text in writing. It encompasses reading and understanding narrative text, as well as reading, understanding and fully answering a question-type prompt.

We asked the question: Does good performance on this snapshot predict later successful reading development? Theoretically, we posited a reciprocal relationship between reading and writing. The knowledge underlying one aspect of literacy is tapped in the reciprocal process.

Table 24 shows the extent to which good performance on ISEL-2 Snapshot D: Extended Response at the beginning of the year (Form A) is associated with good performance on other early literacy measures for second grade children at the end of the school year. As can be seen, the coefficients are substantial for other literacy measures: spelling, word recognition and fluency. In any case, these results show that this Extended Response measure is a good predictor of later reading and writing.

Table 24. Correlation coefficients showing the relation between ISEL-2 Extended Response measured in the fall and other areas of literacy measured in the spring of second grade.

Extended Response Fall	Spelling Spring	Word Recognition Spring	Oral Reading Accuracy Spring	Passage Comprehension Spring	Fluency Spring	Extended Response Spring
Form A $N = 686$	0.53	0.58	0.46	0.47	0.60	0.47

Table 25. Predictive and concurrent validity coefficients between ISEL-2 Snapshot D: Extended Response and the Stanford Achievement Test, the Gates-MacGinitie Reading Test and the Iowa Tests of Basic Skills (ITBS) for primary grades

ISEL-2 Snapshot D: Extended Response	Fall 2002 Stanford Word Reading $n = 47$	Fall 2002 Stanford Total Reading $n = 47$	Spring 2003 Gates-MacGinitie Reading Total $n = 37$	Spring ITBS Reading $n = 27$	Spring ITBS Vocabulary $n = 27$
Concurrent Validity **Fall 2002 Form A**	0.54	0.51		(End of first Grade) **Spring 2002** 0.86	(End of first Grade) **Spring 2002** 0.79
Spring 2003 Form B			0.54	**Spring 2003** 0.38	**Spring 2003** 0.46
Predictive Validity **Fall 2002 Form A**			0.63	**Spring 2003** 0.68	**Spring 2003** 0.76

Concurrent and predictive validity were best for the Form A assessment. Assessing written comprehension is a challenge in any case. However, in reflecting on the results seen here, we realized that Form A is a better parallel to standardized reading tests than Form B because the text structure in Form A is narrative story structure. Form B asks students to find information and categorize and compare that information in writing.

Reliability

Does the snapshot provide a stable and consistent measure of Extended Response- Passage Comprehension? To address this question, we examined the evidence from the six regions shown in Table 26.

Table 26. Fall and spring reliability coefficients (Cronbach alpha) for second grade samples on Extended Response.

ISEL-2 SNAPSHOT D EXTENDED RESPONSE	FALL FORM A		SPRING FORM B	
Second Grade	n	Cronbach Alpha	n	Cronbach Alpha
Region 1 (2000-2001)	248	0.72	234	0.79
Region 2 (2001-2002)	92	0.58	90	0.77
Region 3 (2001-2002)	79	0.67	76	0.80
Region 4 (2001-2002)	120	0.70	115	0.86
Region 5 (2001-2002)	105	0.61	91	0.69
Region 6 (2001-2002)	89	0.78	82	0.80
Average Coefficient		0.68		0.79
	733		688	

Reliability on writing assessments is very hard to achieve. As can be seen in Table 26, the reliability coefficients are good for Form A. These results show that the coefficients for the six-item snapshot (3 key concepts and 3 totals of details for each key concept) are sufficiently high that teachers can have confidence in the stability of the results. The reliability coefficients for Form B are high.   These results show that the coefficients for this 36-item snapshot are also sufficiently high that teachers can have confidence in the stability of the results.

ISEL-2 SNAPSHOT E: PASSAGE COMPREHENSION (Oral Reading Accuracy and Comprehension)

Background and Purpose

Passage reading performance represents a complex integrative/interactive process involving the child's knowledge of meaning, language structure, letter-sound correspondence and self-monitoring strategies to comprehend text. Snapshot E is not intended to find precise instructional levels as is possible with an informal reading inventory. Rather, Snapshot E is intended to be one measure of the student's ability to read with understanding in grade level text, and to provide the teacher with an opportunity to observe the effectiveness of a student's strategy use while reading and monitoring meaning in text. Our aim is to provide insight into how well children respond to the organization and language of the passages, as well as an indication of their proficiency in reading (oral reading accuracy, comprehension and fluency).

Initially, we developed five passages spanning Flesch-Kincaid readabilities from 1.9 to 3.3. Our goal was to have passages that reflected the type of reading students would encounter in the second grade curriculum.   However, after field-testing the five passages we realized that it was impractical to have five full-length passages. Because of the parameters of new federal legislation, ISBE requested two forms of the ISEL-2. So we chose to use four passages for ISEL-2, using two passages for Snapshot C: Fluency and Snapshot D: Extended Response, and two passages for Snapshot E: Passage Comprehension - Accuracy and Comprehension. Table 27 shows the passages with the word count.

Table 27. Passages with word count and readability

Form	Passage Title	Word Count	Flesch-Kincaid Readability
A	*Snow Day!* (Fluency and Extended Response Snapshots)	176	1.9
A	*Lisa's New Pet* (Passage Comprehension)	268	2.2
B	*A Giant Panda's Story* (Fluency and Extended Response Snapshots)	252	2.8
B	*The Kangaroo's Pouch* (Passage Comprehension)	245	3.0

The passage chosen for ISEL-2 Form A Snapshot E: Passage Comprehension is measured by Flesch-Kincaid at a readability of 2.2. The passage chosen for ISEL-2 Form B Snapshot E: Passage Comprehension is measured by Flesch-Kincaid at a readability of 3.0.

Snapshot E Form A was given to second grade students in our norming population in the fall of 2002. Snapshot E Form B was given to second grade students in the same population in the spring of 2003. The assessments were administered by reading specialists and teachers. Detailed directions for administering and scoring accompanied the assessments.

Test Development

When the ISEL author team decided it would be better to write original passages to use for ISEL-2, we contacted reading specialists in several Chicago and suburban school districts to recommend the assessments they use most with second grade children to assess their reading. Those favored were the *Qualitative Reading Inventory-3* (QRI 3) (Leslie & Caldwell, 2001) and the *Basic Reading Inventory* (BRI) (Johns, 1999). Reasons given for choosing the *Qualitative Reading Inventory-3* (QRI 3) (Leslie & Caldwell, 2001) cited passages that "line up well with basals in terms of difficulty," and inclusion of 3 narrative passages and 3 expository passages for second grade. Many specialists added that they like to use the *Basic Reading Inventory* at the beginning of second grade because it has shorter passages and is easier. However, by the mid to end of second grade the QRI met needs better.

To gauge readability and length of passages we took the passages from both QRI-3 and the Basic Reading Inventory (BRI) and did a Flesch-Kincaid Readability on those second grade passages. Using the input from reading specialists and the readability, according to Flesch-Kincaid, and length of these passages as a guide, we constructed the ISEL-2 reading passages. Table 27 shows the Flesch-Kincaid readability of second grade passages commonly used by reading specialists to assess the reading of second graders. Also included are the ISEL-2 passages.

Table 27. ISEL-2 Passages and commonly used IRI passages for second grade with Flesch-Kincaid Readability and Word Counts.

Level 2 Assessment Titles	Instrument Name	Flesch-Kincaid Readability	Number of words
Bill at Camp	BRI	1.8	100
A Spider Friend	BRI	1.9	100
Zoo Work	BRI	1.4	100
What Can I get for My Toy?	QRI-3	1.3	171
The Lucky Cricket	QRI-3	2.6	344
Father's New Game	QRI-3	2.2	298
Whales and Fish	QRI-3	1.9	198
Seasons	QRI-3	2.4	247
Snow Day!	ISEL-2 Form A Snapshot C	1.9	176
Lisa's New Pet	ISEL-2 Form A Snapshot E	2.2	268
A Giant Panda's Story	ISEL-2 Form B Snapshot C	2.8	252
The Kangaroo's Pouch	ISEL-2 Form B Snapshot E	3.0	245

The passages were field tested to determine the amount of print per page, spacing and the font size that was appropriate for second graders to read. Questions were constructed for the passages and field tested, and revised from the results derived from the field testing data.

After the trial in the spring of 2002, we used the data to compile the answers from good readers, average readers and poor readers. We used these answers to formulate possible correct answers as examples for teachers. We found the bivariate correlations with the total score for each set of questions, eliminating the weakest questions.

Scoring Approach

Snapshot E: Passage Comprehension - Oral Accuracy is administered individually. While the student reads the passage orally the teacher observes and marks errors by striking through a word (Singer), or the teacher may marks errors as for a miscue analysis. No words are provided for the student, but the student is told to try the word and read on. Errors are: omitted words, substitutions, mispronunciations and insertions. Errors are totaled and the percentage is circled at the bottom of the page. Teachers should circle the appropriate pace, phrasing and intonation descriptor immediately after the reading. This provides additional information about the child's fluency.

Snapshot E: Passage Comprehension - Comprehension is administered immediately after the oral reading. The teacher scores the questions by underlining the answer given and marking each oval or square with a plus (+) if correct. There are twelve points possible.

Difficulty of the Task

ISEL-2 Snapshot E: Passage Comprehension was administered to children in the fall (Form A) and spring (Form B) of second grade. Table 28 shows the results from this administration in terms of mean raw scores, standard deviations, and percent correct for Form A (Fall) and Form B(Spring).

Table 28. Means, standard deviations, and percent correct on ISEL-2 Snapshot E: Passage Comprehension - Oral Reading Accuracy and Comprehension for children in the fall (Form A) and spring (Form B) of second grade.

ISEL-2 Grade 2 (2002-2003)	Fall – Form A (N = 733)			Spring-Form B (N = 693)		
	Mean	**S.D.**	**% Correct**	**Mean**	**S.D.**	**% Correct**
Oral Reading Accuracy	90.03	15.76	90	95.29	7.65	95
Passage Comprehension	6.46	3.36	54	7.40	2.73	62

A score of 91% accuracy as the mean score at the beginning of second grade shows that many second graders can read this passage. Interestingly, the median, or 50th percentile score is 96%,

showing that 50% of those tested could read the passage at 96% accuracy or better, a much different score than the mean. A score of 7 in Comprehension is also the 50th percentile score means that most children could give adequate responses to over half of the comprehension questions.

Validity

The ISEL-2 Snapshot E Passage Comprehension (Oral Reading Accuracy and Comprehension) is a performance measure tapping whether children can read grade level text accurately and with meaning. Because these operations are essential to success in second grade, and because this format is commonly used in informal reading inventories and running records, we argue for the face and content validity of this Passage Reading assessment. That is, if a teacher wishes to know how a child reads, observing and recording reading behaviors while the student is reading aloud is an accepted assessment. Asking the student to tell about what was read by answering questions is also a common practice to gauge comprehension.

Reading with accuracy and comprehension are essential to learning to read. Thus, we asked the question: Does good performance on this snapshot predict later successful reading development? Theoretically, we posited a reciprocal relationship between reading and writing. The knowledge underlying one aspect of literacy is tapped in the reciprocal process.

Table 29 shows the extent to which good performance on ISEL-2 Snapshot E: Passage Comprehension (Oral Reading Accuracy and Comprehension) at the beginning of the year (Form A) is associated with good performance on other early literacy measures for second grade children at the end of the school year (Form B).

Table 29. Correlation coefficients showing the relation between ISEL-2 Snapshot E: Passage Comprehension (Oral Reading Accuracy and Comprehension) measured in the fall (Form A) and other areas of literacy measured in the spring (Form B) of second grade.

Passage Reading Fall	Spelling Spring	Word Recognition Spring	Oral Reading Accuracy Spring	Passage Comprehension Spring	Fluency Spring	Extended Response Spring
Form A $n = 686$ Oral Reading Accuracy	0.50	0.67	0.70	0.46	0.57	0.33
Compre-hension	0.50	0.57	0.50	0.58	0.58	0.41

Table 30. Predictive and concurrent validity coefficients between ISEL-2 Snapshot E: Passage Comprehension - Oral Reading Accuracy and Comprehension and the Stanford Achievement Test, the Gates-MacGinitie Reading Test and the Iowa Tests of Basic Skills (ITBS) for primary grades.

ISEL-2 Snapshot E: Passage Comprehension	Fall 2002 Stanford Word Reading $n = 47$	Fall 2002 Stanford Total Reading $n = 47$	Spring 2003 Gates-MacGinitie Reading Total $n = 37$	Spring ITBS Reading $n = 27$	Spring ITBS Vocabulary $n = 27$
Concurrent Validity **Form A** **Fall 2002 Oral Reading Accuracy**	0.63	0.57		(End of First Grade) **Spring 2002** 0.78	(End of First Grade) **Spring 2002** 0.69
Fall 2002 Passage Comprehension	0.34	0.50		0.72	0.66
Form B **Spring 2003 Oral Reading Accuracy**			0.74	**Spring 2002** 0.77	**Spring 2002** 0.50
Spring 2003 Passage Comprehension			0.78	0.51	0.32
Predictive Validity **Form A** **Fall 2002 Oral Reading Accuracy**			0.63	**Spring 2003** 0.85	**Spring 2003** 0.66
Fall 2002 Comprehension			0.82	0.71	0.66

Reliability

Does the snapshot provide a stable and consistent measure of Oral Reading Accuracy and Passage Comprehension? To address this question, we examined the evidence from the six regions shown in Table 31.

Table 31. Fall and spring reliability coefficients (Cronbach alpha) for second samples on Oral Reading Accuracy and Passage Comprehension.

ISEL-2 Snapshot E Passage Comprehension	FALL FORM A		SPRING FORM B	
Second Grade	n	Cronbach Alpha	n	Cronbach Alpha
Region 1 (2000-2001)	248	0.85	234	0.76
Region 2 (2001-2002)	92	0.79	90	0.64
Region 3 (2001-2002)	79	0.75	76	0.75
Region 4 (2001-2002)	120	0.80	115	0.77
Region 5 (2001-2002)	105	0.79	91	0.76
Region 6 (2001-2002)	89	0.84	82	0.78
Average Coefficient		0.80		0.74
	733		688	
ISEL-2 Snapshot E **Oral Reading Accuracy** Test / Retest	27	0.78	28	0.92

As can be seen in Table 31, the reliability coefficients are only slightly higher for Form A than Form B. These results show that the coefficients for the snapshot are sufficiently high that teachers can have confidence in the stability of the results.

ISEL-2 Snapshot F: Vocabulary

Background and Purpose

Few standardized measures of word knowledge exist for classroom assessment. Best known is the Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn, 1997). Other standardized tests with vocabulary assessments are generally group, silent measures. This is not an assessment that assigns a vocabulary age or grade level as does the more sensitive PPVT. The intent of this vocabulary assessment was to give teachers an individual grade- appropriate tool to get a picture of the way in which young students in a particular class, school or district score in relation to others taking the test.

In Snapshot F: Vocabulary, the child is expected to respond with an indication of understanding to a list of 14 words that increase in difficulty. Because the list spans grades 1 to 3, it is not a list of the 14 most known words but a sampling of frequent words at each level.

Test Development

Selecting a Corpus of Words for the Field Test

Two hundred words were chosen from the work of Biemiller and Slonim (2001), which has established that young children's oral recognition vocabulary is approximately two years advanced over their reading vocabularies.   In consultancy with Andrew Biemiller of the Ontario Institute for the Study of Education, the corpus of words shown in Table 32 was chosen for field-testing (see Biemiller & Slonim, 2001, for complete list of words).

Table 32. Words chosen for ISEL Vocabulary Snapshots

Grade at Which Words are First Known by 80% or More Children			
Kindergarten	**Grade One**	**Grade Two**	**Grade Three**
spread	fish	throat	swing (baseball)
loop	voice	flood	sock
tip	shot	match (fire)	choice
clown	listen	café	bait
flashlight	near	math	ant
nobody	drop	snatch	top
only	alphabet	volume (sound)	feed
air	splash	terror	sniff
glue	alright	smear	third
star	eyebrow	brought	hamster
TV	tiger	lake	grill
about	puppy	dumb	nickname
play	piano	worn	rag
own	mice	tack	advice
terrible	mean	way	canteen
eye	wrinkle	lawn	raccoon
moon	aim	homework	glare
day	mystery	damp	pack
sight	chop	organ	plow
feet	scare	aboard	sincere
stop	helmet	distance	state
water	bud	pill	aid
live (be live)	sample	cranberry	chip
bear (animal)	office	admire	else
kiss	crime	member	bashful

To eliminate inappropriate words, a team of 5 expert teachers with primary grade experience then rated the lists. The teachers were asked to indicate words that they felt were not appropriate Grade 2 words and to scale appropriate words in difficulty. The 35 words deemed most appropriate were selected for the first cut. This list was crosschecked with the K/1 list of 48 words to make sure there was no overlap. The 35-word field test list that resulted is shown is Table 33.

Table 33. ISEL-2 Field Test Words, Scaled for difficulty.

ISEL –2

Field Test List

Hard 1	1	swing	
	2	antler	
	3	bait	
	4	lawn	
	5	line	
	6	captain	
	7	bitter	
Easy 2	1	match	
	2	volume	
	3	worn	
	4	smear	
	5	lake	
	6	homework	
	7	tack	
Hard 2	1	react	
	2	straight	
	3	litter	
	4	tally	
	5	thud	
	6	wad	
	7	stock	
Easy 3	1	sniff	
	2	rag	
	3	nickname	

	4	sincere	
	5	bashful	
	6	aid	
	7	choice	
Hard 3	1	chart	
	2	among	
	3	mechanic	
	4	salamander	
	5	turban	
	6	elect	
	7	enforce	

Field Test Refinement

The resulting list of 35 words was administered to 636 second grade students at schools selected to reflect the demographic makeup of Illinois school children. Student responses were used to identify those words from each subset. Table 34 shows the list of 28 words representing levels that seemed to emerge clearly from the first set of 35 words and the percent of second grade children who responded to each of the words correctly.

The panel of five educators with primary teaching experience reexamined the list to check for inappropriate words or placement. After careful study of the assessment evidence and the evaluations of teachers, a representative subset composed of 28 words was selected for inclusion on the final version of the vocabulary snapshot and were sorted into two forms based on difficulty. Form A and Form B words are of similar difficulty based upon our data.

Table 34. The percentage of words correctly recognized by second grade student tested in the fall of 2003 (*n*=636)

List 1	word	% known
1	homework	87
2	lawn	85
3	worn	83
4	smear	79
5	line	78
6	choice	77
7	antler	71
8	tack	65
9	mechanic	61
10	react	53
11	wad	51
12	bitter	41
13	bashful	28
14	aid	19

List 2	word	% known
1	lake	88
2	volume	84
3	captain	81
4	match	78
5	nickname	74
6	rag	73
7	bait	71
8	swing	65
9	litter	64
10	stock	57
11	chart	52
12	thud	40
13	sincere	29
14	enforce	18

Based on the results of this initial testing in the fall, we decided that List 1 would become Form A and List 2 would be Form B of the ISEL-2 Snapshot F: Vocabulary.

Difficulty of the Task

ISEL-2 Snapshot F: Vocabulary was administered to Grade 2 children in the fall (Form A and Form B) and spring (Form B) during 2003-2004. Table 35 shows the results from this administration in terms of mean raw scores, standard deviations and percent correct.

Table 35. Means, standard deviations and percent correct on the Vocabulary Snapshot for children in the fall and spring of second grade 2003-2004.

ISEL-2 Grade 2 (2003-2004)	Fall – Form A			Spring-Form B		
	Mean	**S.D.**	**% Correct**	**Mean**	**S.D.**	**% Correct**
Snapshot F: Vocabulary **N = 636**	8.47	3.18	61	9.05	3.24	65

It is important to note that scores reported as the 50th percentile and 20th percentile are based on data using the weighted means. The means indicate the average scores for students at a specific time of year. (See Appendix for 50th and 20th percentile scores). Scores on the vocabulary

measure scale students with respect to others who take the test,   but they do not provide a grade level. Rather, they provide a way to look at class or school and estimate relative vocabulary knowledge of these terms (Biemiller & Slonim, 2001).

Validity

The face and content validity of the vocabulary snapshot is enhanced by the way the list was composed with a selection of words scaled by difficulty based on the Living Word Vocabulary (Dale & O'Rourke, 1976) and the assessment work of Biemiller and Slonim (2001). If a teacher wishes to know whether a child has knowledge of specific words and roughly at what level, this snapshot provides this information. Does good performance on this snapshot predict successful reading development? Table 36 shows the extent to which good performance on ISEL-2 Snapshot F: Vocabulary at the beginning of the year (Form A) is associated with good performance on other literacy measures for second grade children at the end of the school year (Form B).

Table 36. Correlation coefficients showing the relation between Vocabulary measured in the fall and other areas of literacy measured in the spring of second grade.

ISEL-2	Spelling Spring	Word Recognition Spring	Oral Reading Accuracy Spring	Passage Comprehension Spring	Fluency Spring	Extended Response Spring	Vocab-ulary Spring
Form A $N =$ 598 Snapshot F: Vocabulary	.324	.378	.347	.591	.501	.380	.674

Table 37. Concurrent validity coefficients between ISEL-2 Snapshot F: Vocabulary and the Stanford Achievement Test.

ISEL-2 Snapshot F: Vocabulary	Fall 2003 Stanford Comprehension n = 51	Fall 2003 Stanford Total Reading n = 51
Concurrent Validity Fall 2003 Form A Vocabulary	0.66	0.65

Reliability

Does the ISEL-2 Snapshot F: Vocabulary provide a stable and consistent measure of vocabulary? As can be seen from Table 38, fall and spring reliability coefficients (Cronbach alpha) for Grade 2 samples on Vocabulary are sufficiently high that teachers can have confidence in the stability of results.

Does the snapshot provide a stable and consistent measure of Vocabulary? To address this question, we examined the evidence from the six regions shown in Table 38.

Table 38. Fall and spring reliability coefficients (Cronbach alpha) for Vocabulary

ISEL-2 Snapshot F: Vocabulary	FALL Form A		SPRING Form B	
Second Grade	n	Cronbach Alpha	n	Cronbach Alpha
Region 1 (2003-2004)	196	.7743	240	.7467
Region 2 (2003-2004)	182	.7352	120	.7004
Region 3 (2003-2004)	67	.6443	64	.4974
Region 4 (2003-2004)	47	.7675	45	.8030
Region 5 (2003-2004)	70	.7304	88	.6980
Region 6 (2003-2004)	74	.8586	64	.8026
Cross-Regional	636	.7894	621	.7299

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Appendix A

ISEL-2

50th Percentile Scores (Target)

and

20th Percentile Scores (Watch)
Form A (Fall)
and
Form B(Spring)

50th Percentile Target scores and 20th Percentile Watch scores.

ISEL-2 FORM A (Fall) Scores from normed testing 2002-2003 (2003-2004 Vocabulary).

SNAPSHOTS	HIGHEST POSSIBLE SCORE	50TH PERCENTILE SCORE	20TH PERCENTILE SCORE
A. Spelling	10	4	2
B. Word Recognition	22	15	6
C. Fluency		74wcpm*	43wcpm*
D. Extended Response	28	13	6
E. Passage Comprehension			
Accuracy	100%	96%	87%
Comprehension	12	7	4
F. Vocabulary	14	9	6

*Words Correct per minute (wcpm). An average fluency rate range for 2nd grade is 50 -100 wcpm (Barr, Blachowicz, Katz, & Kaufman, 2002).

ISEL-2 FORM B (Spring) Scores from normed testing 2002-2003 and 2003-2004 (Vocabulary).

SNAPSHOTS	HIGHEST POSSIBLE SCORE	50TH PERCENTILE SCORE	20TH PERCENTILE SCORE
A. Spelling	10	5	2
B. Word Recognition	22	20	15
C. Fluency		99wcpm*	64wcpm*
D. Extended Response	36	6	3
E. Passage Comprehension			
Accuracy	100%	98%	93%
Comprehension	12	7	5
F. Vocabulary	14	11	8

*Words Correct per minute (wcpm). An average fluency rate range for 2nd grade is 50 -100 wcpm (Barr, Blachowicz, Katz, & Kaufman, 2002).

Appendix B

Illinois Snapshots of Early Literacy

Grade 2

Researchers, Advisors and Consultants
Schools

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Elementary Schools Participating in the Norming

Ball Charter Elementary – Springfield, IL
Ball Chatham Elementary – Ball Chatham, IL
Edgewood Elementary – Woodridge, IL
Haugan Elementary- Chicago, IL
Hawthorne Scholastic Academy – Chicago, IL
Hodgkins Elementary – LaGrange, IL
Indian Trail Elementary – Downers Grove, IL
Jefferson Elementary – Oregon, IL
Jordan Elementary – Chicago, IL
Kreitner Elementary – Collinsville, IL
Rahn Elementary- Mt. Morris, IL
Riverwoods Elementary – Naperville, IL
Rockton Elementary – Rockton, IL
Sprague Elementary- Lincolnshire, IL
Scott Elementary– Melrose Park, IL
Thomas Elementary – Carbondale, IL
Tremont Elementary – Tremont, IL
Twin Echo Elementary – Collinsville, IL
Westdale Elementary – Melrose Park, IL
Wilmot Elementary – Deerfield, IL
Wilson Elementary – East Peoria, IL

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