Using the SRI to Predict Reading Performance Levels in Ohio

Kimberly A. Knutson, Ed.D.
An Alignment Guide to the
Ohio Achievement Test

SCHOLASTIC READING INVENTORY

PROFESSIONAL PAPER

OVERVIEW

This paper demonstrates how one measure of student reading level, the Lexile® measure from the Scholastic Reading Inventory (SRI), is statistically aligned to the Ohio Achievement Test (OAT) Reading.

SRI is an objective assessment of a student's reading comprehension level. The computer-adaptive assessment can be administered to students in Grades K–12 and is based on the Lexile Framework for Reading®. The results of the SRI are reported on a developmental scale that is interpretable across grade levels, making it a useful tool for accurately establishing students' initial reading comprehension levels and monitoring their growth throughout the year.

OAT Reading is Ohio's criterion-referenced assessment intending to measure selected Ohio Reading content standards (Ohio Department of Education, 2008).

Using linear regression analysis, this paper describes how SRI scores can be used to predict Performance Levels on the OAT Reading. This information is designed to allow teachers to set growth goals and create an appropriate instructional plan early in the school year, as well as to keep track of students' progress toward those goals and adjust instruction as necessary. Thus, by following the model outlined here, teachers can use the SRI to individualize students' learning experiences and help ensure that they become motivated and successful readers.

ACKNOWLEDGMENTS

INTRODUCTION

Education policy initiatives have focused on improving student academic performance. To address this need, states have enacted accountability systems that use reading assessments to evaluate districts and schools. However, results often came too late for teachers to target students' weaknesses. Teachers need meaningful data throughout the year to scaffold instruction appropriately to ensure students meet state level reading goals and leave high school prepared for college and the workplace.

The purpose of this paper is to examine the relationship between an independent measure, the SRI, and the OAT Reading. The goals of this paper are threefold:

1. Determine if Lexile measures from the SRI can predict OAT Reading scores at varying levels of proficiency for district students in Grades 3–6.

2. Develop a model of reading growth using SRI scores that correspond to OAT Reading achievement level cutoff scores.

3. Illustrate how the SRI can be used to set realistic, standards-related growth goals in reading for individual students.

PARTICIPANTS

During the 2007–2008 school year, SRI and OAT Reading data were collected from 2,882 students attending Grades 3–6 in Fairfield City Schools (FCS), Ohio. Table 1 shows the demographic characteristics of the students included in the study by grade level.

Table 1. Demographic Characteristics by Grade Level

Grade	n	American Indian	Asian or Pacific Islanders	African American	Hispanic	Caucasian	Multi racial	Unknown	Free or Reduced-Price Lunch Status	English Language Learner	Male	Female
		%	%	%	%	%	%	%	%	%	%	%
3	697	0.3	2.3	11.0	4.0	76.0	6.3	0.0	21.3	5.2	50.9	49.1
4	768	0.4	1.0	11.7	5.1	75.9	5.6	0.3	18.4	5.3	50.8	49.2
5	658	0.2	1.8	13.4	3.8	76.9	4.0	0.0	18.7	4.3	51.8	48.2
6	759	0.1	2.0	12.3	3.2	75.2	3.7	3.6	15.5	2.9	46.6	49.9

MEASURES

Ohio Achievement Test (OAT)

The OAT Reading is a criterion-referenced assessment intended to measure selected Ohio reading content standards (American Institutes of Research, 2008). Four reading academic content standards are tested in the spring of each year. They include: acquisition of vocabulary, reading process, informational text, and literary text (Ohio Department of Education, 2009). Test items for Grades 3–6 include multiple–choice, short–answer, and extended–response questions (Ohio Department of Education, 2004). Across grade levels, the 2008 OAT Reading reports scale scores ranging from 241 to 552 points and five Performance Levels (Ohio Department of Education, 2008). Performance Levels 1–2 (Limited and Basic, respectively) are below Proficient, Performance Level 3 (Proficient) is the minimum level for a student to be classified as having attained proficiency at his or her grade level, and Performance Levels 4–5 (Accelerated and Advanced, respectively) are above Proficiency. A score of 400 or higher meets the Proficiency standard on each test across all grade levels.

Scholastic Reading Inventory (SRI)

SRI is a computer-adaptive test that measures reading comprehension by focusing on the following skills: identifying details in a passage; recognizing cause-and-effect relationships and sequence of events; drawing conclusions and making comparisons and generalizations. Test items are based on authentic passages taken from textbooks, literature, and periodicals and consist of multiple-choice items with a complete-the-sentence or fill-in-the-blank format. During test administration, the computer adapts the test continually according to student responses. Performance on the SRI is reported as a Lexile (L) scale, which is a developmental scale interpretable across grade levels. The higher a student's score, the more challenging material that student is likely to be able to read and understand. Scores can range from Beginning Reader (less than 100L) to graduate-school readers (1700L).

METHOD

The SRI was administered district-wide to students in Grades 3–6 four times during the 2007–2008 school year (see Table 2). Elementary students in Grades 3–4 took the SRI in their classroom with their homeroom teacher. Fifth- and sixth-grade students took the SRI in the computer lab, also with their homeroom teacher. Although the SRI was not timed, all students were scheduled to complete the test during a 45–minute class period. The OAT Reading was administered to all third- through sixth-grade students in this study during April 2008. School testing coordinators followed the Ohio Department of Education test administration guidelines when administering the OAT Reading.

Table 2. Administration Schedule for all Students in Grades 3–6, 2007–2008 School Year

Assessment Period (AP)	Administration Dates
SRI AP1	September 22–October 10, 2007
SRI AP2	November 3–21, 2007
SRI AP3	February 2–20, 2008
SRI AP4	April 27–May 15, 2008

DATA ANALYSIS

The most efficient way to establish the predictive relationship between the SRI and the OAT Reading is to use a simple yet powerful statistical technique known as linear regression. In simplest terms, this technique reveals the linear, mathematical relationship between the values of two variables.

Without going into the actual details of this statistical technique, it is important to know the two key values that regression analyses typically yield. These two values are the correlation and the slope of the relationship between these two variables.

A correlation measures the strength of the relationship between two variables. They take on values from -1 to +1. The sign of the correlation (i.e., positive or negative) defines the direction of the relationship. A positive correlation demonstrates that scores move in the same direction; a negative correlation indicates the inverse of the relationship. The absolute value indicates the strength of the correlation. In general, a correlation ranging from 0 to 0.4 is considered low, 0.5–0.7 is considered moderate, and 0.8–1 is considered high.

The slope gives information about how much change on the predictor variable (SRI) is necessary to yield a unit change on the other variable (the OAT Reading). The concept of the slope can be more easily understood by remembering that the simple algebraic formula for a line can be expressed as **$y = mx + b$**, where m is the slope, x is the predictor, b is the value of y (the predicted variable) when x is equal to zero, and y is the predicted variable.

A strong directional correlation (in this case, positive) between SRI scores and the OAT Reading score supports our confidence to predict (with some degree of accuracy) a certain score on the OAT Reading. Further, a positive slope from the regression analysis supports the relative impact the SRI has on the OAT.

CORRELATION RESULTS

In order to confirm the consistency of the test results across each SRI Assessment Period (AP) during the 2007–2008 school year, data from SRI AP1 and AP2, AP2 and AP3, and AP3 and AP4 were correlated (see Table 3). Predictably, all correlations were positive and strong, ranging from .92 to .96 across grades. The magnitudes of these results support the internal consistency across all SRI Assessment Periods.

Table 3. Correlation of the SRI Scores in the 2007–2008 School Year Assessment Period (AP)

Grade	AP1 and AP2		AP2 and AP3		AP3 and AP4	
	r	n	r	n	r	n
3	.94	509	.94	357	.95	388
4	.94	563	.95	256	.95	241
5	.92	286	.93	239	.94	397
6	.95	473	.95	421	.96	497

Note. All correlations are statistically significant ($p < .01$).

To further explore whether reading performance on the SRI accurately predicts reading performance on the OAT Reading, AP1, AP2, AP3, and AP4 Lexile scores and the 2007 OAT Reading scores were correlated to the spring 2008 OAT Reading scale scores. The correlations between 2007 and 2008 OAT scores were positive and strong, ranging from .66–.71. The correlations between SRI AP1 and AP2 to spring 2008 OAT Reading for Grades 3-6 were positive and strong, ranging between .62–.73. The correlations between SRI AP3 and AP4 to spring 2008 OAT Reading for Grades 3–6 were also positive and strong, ranging between .64–.76 (see Table 4).

As expected, the correlation is slightly higher between the SRI AP4 (spring) scores and the OAT Reading scores than between the SRI AP1 (early fall), SRI AP2 (fall), and SRI AP3 (winter) scores and the 2008 OAT Reading results. The average of the correlations between the scores is .72 in the spring (AP4) and .69 in the winter (AP3), while it is slightly lower in the fall, at .66 (AP1) and .67 (AP2). Compared to the average correlation between the 2007 and 2008 OAT Reading, which is .70, the average correlations between the SRI and the OAT Reading are nearly equivalent for these samples and grades.

Table 4. Correlations to Spring 2008 OAT Reading by Grade Level

| Grade	2007 OAT		SRI API1		SRI AP2		SRI AP3		SRI AP4	
	r	n	r	n	r	n	r	n	r	n
3	—	—	.63	586	.67	533	.70	421	.72	527
4	.66	686	.68	654	.68	581	.70	285	.72	590
5	.72	588	.62	567	.62	288	.64	407	.69	570
6	.71	680	.73	713	.72	484	.71	511	.76	732

Note. All correlations are statistically significant (p <. 01).

Each of these pieces of evidence taken together indicate that not only is the SRI stable across assessment periods, but that low or high scores on the SRI in the fall are related with low or high scores on the OAT Reading.

REGRESSION RESULTS

Standard statistical regression techniques were used to examine the predictive relationship between SRI and OAT Reading scores. Results of this analysis were used to establish the SRI scores equivalent to the OAT Reading scale scores that define the cutoff points that demarcate Performance Levels (1 through 5) for Grades 3–6. Regression was chosen because, unlike other methods, the regression equation is most successful at accurately predicting proficient grade-level performance (Knutson, 2002). Performance Level 3 is the OAT Reading Performance Level that the state defines as proficient, and is taken as defining grade–level performance within the FCS. Graph 1 shows a comparison of the accuracy of predicting spring OAT Reading Performance Levels, from 1) fall SRI scores from the same academic year as the predicted results and 2) previous years OAT Reading Performance Level. Accuracy was established by comparing the Performance Level "predicted" from the fall SRI score to the actual Performance Level. The percentage of fall SRI scores accurately predicted was compared to the percentage of OAT Reading scores that maintained the same OAT Reading Performance Level as the year prior. As Graph 1 shows, the fall SRI scores were accurate or better predictors as compared with OAT Reading scores from the previous spring.

Graph 1. Percentage of Students whose Performance Level on the 2008 OAT was Accurately Predicted from 2007 OAT and SRI AP1.
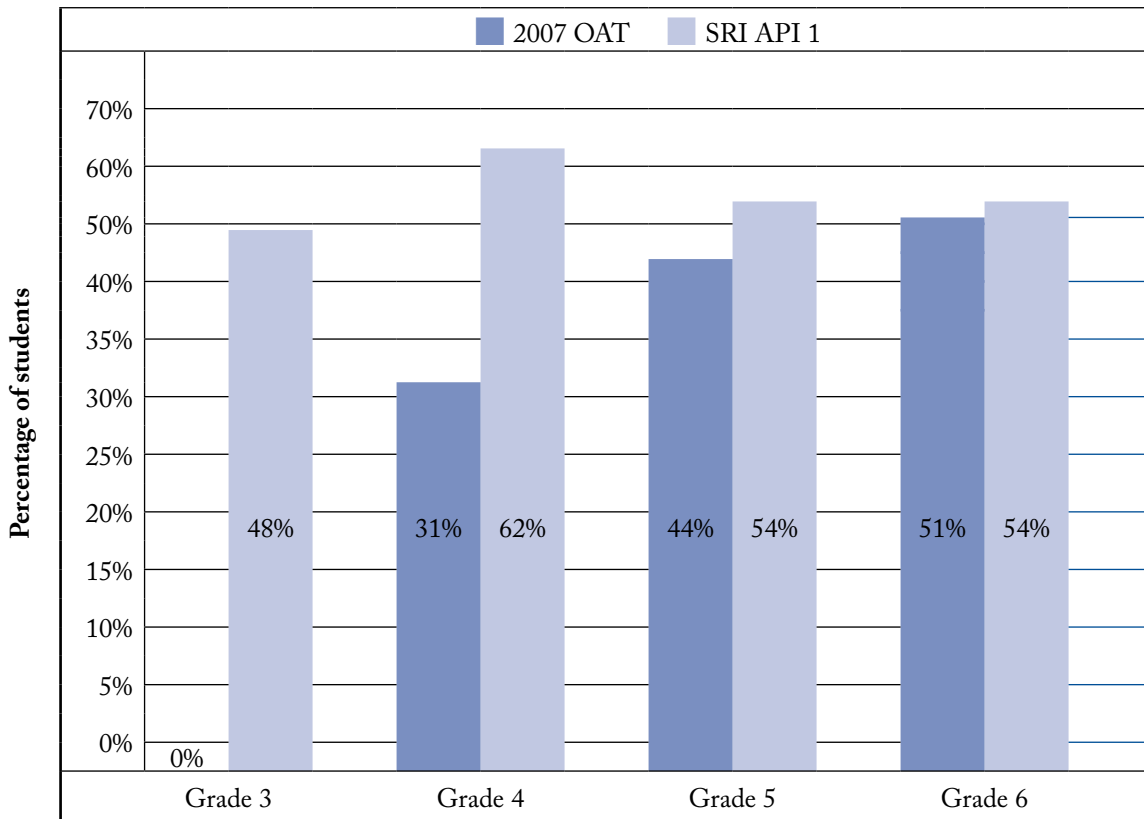
Statistical regression techniques were used to examine the incremental increase on the OAT Reading gained for each unit increase on the SRI. The reason for exploring the incremental increase is to quantify how much Lexile growth on the SRI is needed to achieve each Performance Level on the OAT Reading.

Table 5 shows results from the linear regression analysis (SRI AP1 and 2008 OAT Reading) by grade. Several specific pieces of information are included: 1) the rate of change (or slope) between the predictor variable and the predicted variable, 2) the intercept, which is the value of the predicted variable when the value of the predictor is zero, and 3) the adjusted R^2, the 2008 correlation coefficient (with a range of 0–1) that measures the fraction of the variability in OAT Reading scores that can be explained by the variability in SRI AP1 scores through the regression line. The table shows that the correlation scores R^2 is .53 for Grade 6. This suggests that 53% of the variability of the data could be explained by the linear regression. Further, for every additional unit increase in the SRI AP1 for sixth–grade students, the OAT Reading is predicted to increase an average of 0.07 scale scores. Effects are statistically significant at the .01 level. Thus, we confirm that SRI AP1 scores can predict 2008 OAT Reading scale scores. In other words, as SRI AP1 scores increased, so did OAT Reading scores.

The information for Grade 4 in Table 5 can then be used to calculate the corresponding predicted increase in OAT Reading score. Table 5 shows that the slope coefficient in Grade 4 is .07, meaning that the increase in OAT Reading score is approximately .07 OAT Reading points per unit increase on the SRI. Thus, a fourth–grade student who gained 213 Lexile points over the year would gain (.07 x 213), or approximately 15 points, on the OAT Reading.

Table 5. Regression Coefficients for Grades 3–6 for 2008 OAT Reading and SRI AP1

Predicted Variable	Predictor Variable	Grade	Intercept	Slope	n	Adj R^2
OAT Reading	SRI Lexile	3	394.42	0.06	585	.40
OAT Reading	SRI Lexile	4	387.52	0.07	653	.46
OAT Reading	SRI Lexile	5	355.53	0.08	566	.38
OAT Reading	SRI Lexile	6	363.80	0.07	712	.53

Note. All correlations are statistically significant (p <. 01).

Table 6 shows linear regression analysis results of SRI AP2 and 2008 OAT Reading score results by grade level. For example, the table shows that the r^2 is .52 for Grade 6. This suggests that 52% of the variability of the data could be explained by the linear regression. Further, for every additional unit increase in the SRI for sixth-grade students, the OAT Reading is predicted to increase an average of 0.08 scale scores. Effects are statistically significant at the .01 level. Thus, the data confirms that SRI AP2 can predict 2008 OAT Reading scale score; as SRI AP2 increases, so does OAT Reading score.

Table 6. Regression Coefficients for Grades 3–6 for 2008 OAT Reading and SRI AP2

Predicted Variable	Predictor Variable	Grade	Intercept	Slope	n	Adj R^2
OAT Reading	SRI Lexile	3	388.86	0.06	532	.45
OAT Reading	SRI Lexile	4	382.04	0.07	580	.46
OAT Reading	SRI Lexile	5	352.26	0.08	287	.39
OAT Reading	SRI Lexile	6	361.70	0.08	483	.52

Note. All correlations are statistically significant ($p < .01$).

Table 7 shows linear regression analysis results of SRI AP3 and 2008 OAT Reading scores results by grade level. For example, the table shows that the R^2 is .50 for Grade 6. This suggests that 50% of the variability of the data could be explained by the linear regression. Further, for every additional unit increase in the SRI for sixth-grade students, the OAT Reading is predicted to increase an average of 0.08 scale scores. Effects are statistically significant at the .01 level. Thus, we confirm that SRI AP3 can predict 2008 OAT Reading scale scores; as SRI AP3 increases, so does OAT Reading score.

Table 7. Regression Coefficients for Grades 3–6 for 2008 OAT Reading and SRI AP3

Predicted Variable	Predictor Variable	Grade	Intercept	Slope	n	Adj R^2
OAT Reading	SRI Lexile	3	384.52	0.06	420	.49
OAT Reading	SRI Lexile	4	376.30	0.07	284	.49
OAT Reading	SRI Lexile	5	339.14	0.09	406	.41
OAT Reading	SRI Lexile	6	360.69	0.08	510	.50

Note. All correlations are statistically significant ($p < .01$).

Table 8 shows linear regression analysis results of SRI AP4 and 2008 OAT Reading score results by grade level. The table shows that the R^2 is .58 for Grade 6. This suggests that 58% of the variability of the data could be explained by the linear regression. Further, for every additional unit increase in the SRI for sixth–grade students, the OAT Reading is predicted to increase an average of 0.08 scale scores. Effects are statistically significant at the .01 level. Thus, we confirm that SRI AP4 can predict 2008 OAT Reading scale scores; as SRI AP4 increases, so does OAT Reading Scores.

Table 8. Regression Coefficients for Grades 3–6 for 2008 OAT Reading and SRI AP4

Predicted Variable	Predictor Variable	Grade	Intercept	Slope	n	Adj R^2
OAT Reading	SRI Lexile	3	380.56	0.07	526	.52
OAT Reading	SRI Lexile	4	368.55	0.08	589	.52
OAT Reading	SRI Lexile	5	337.33	0.09	569	.48
OAT Reading	SRI Lexile	6	353.83	0.08	731	.58

Note. All correlations are statistically significant ($p < .01$).

EXPECTED GROWTH

As noted previously, SRI scores can be used to predict OAT Reading scores. Thus, we can identify the SRI scores for each assessment period that correspond to the OAT Reading cutoff scores for each Performance Level. Using these SRI scores, we can develop a model of expected or necessary growth.

In other words, if we assume that the SRI AP1 (fall) score that corresponds to the OAT Reading Performance Level 3 cutoff score is the starting point, and the correlative SRI AP4 (spring) score defines the end point—that is, the point where a student must be to maximize the likelihood that they will be in (or remain in) Performance Level 3 at the time of spring OAT testing—then we can use these two points to define a trajectory for fall-to-spring growth, as explained subsequently.

Table 9 shows the SRI values for AP1 (fall) through AP4 (spring) that correspond to the 2008 OAT Reading Performance Level cutoff points. These correspondences were derived in several steps. First, for each grade, the grade-level OAT Reading scores were regressed on SRI AP1, AP2, AP3, and AP4 scores. This produced the regression coefficients shown in Tables 5–8. Using these equations, SRI scores could be used to predict OAT Reading scores on the grade–level scale. Based on these predicted scores, the SRI scores that corresponded to the cut off points on each grade-level scale were identified. These cutoff points are the values in the column labeled "2008 OAT Reading Scale Score."

In particular, Table 9 illustrates how we can use SRI scores for students at any "predicted" 2008 OAT Reading Performance Level to identify how much growth a student will need to show on the SRI from AP1 (fall) to AP4 (spring). This allows us determine whether students will need to: 1) stay at the current predicted level, or 2) increase levels, for example, to go from a predicted Performance Level 2 to Performance Level 3.

Table 9. SRI AP1, AP2, AP3 and AP4 Lexile Scores Equivalent to Spring OAT Reading Performance Level Cutoff Points for Grades 3–6

Grade	OAT Reading Performance Level	2008 OAT Reading Scale Score	SRI AP1 Lexile	SRI AP2 Lexile	SRI AP3 Lexile	SRI AP4 Lexile
3	Advanced	432	684	706	755	795
	Accelerated	415	375	428	484	532
	Proficient	400	102	182	246	300
	Basic	385	—	—	8	69
	Limited	< 385	—	—	—	53
4	Advanced	467	1192	1202	1228	1251
	Accelerated	435	712	749	794	844
	Proficient	400	187	254	321	400
	Basic	384	—	28	104	196
	Limited	< 384	—	14	91	184
5	Advanced	459	1265	1271	1288	1312
	Accelerated	441	1045	1057	1095	1118
	Proficient	400	544	569	654	676
	Basic	384	348	378	482	503
	Limited	< 384	336	366	471	492
6	Advanced	456	1254	1248	1265	1286
	Accelerated	436	982	984	1000	1034
	Proficient	400	492	507	522	581
	Basic	380	220	242	256	329
	Limited	< 380	207	229	243	317

Table 10 shows the actual Lexile increases from AP1 (fall) to AP4 (spring) on the SRI that are needed for students to maintain their current predicted spring 2008 OAT Performance Level. Also shown are the AP1–AP4 (spring to spring) SRI increases that would be necessary to stay at the same predicted 2008 OAT Performance Level from one grade to the next, say from Grade 4 to 5 or from 5 to 6.

Table 10. SRI Lexile Gain Needed to Maintain Equivalent OAT Reading Performance Level

	AP1 (Fall) to AP4 (Spring) Growth					(AP4) Spring to (AP4) Spring Growth					
Grade	OAT Performance Level				Median Lexile	Grade to Grade	OAT Performance Level				Median Lexile
	2	3	4	5			2	3	4	5	
3	—	199	158	111	158	—	—	—	—	—	—
4	—	213	132	59	132	3–4	128	99	312	456	220
5	155	132	73	47	73	4–5	307	276	273	61	275
6	109	89	52	32	52	5–6	−174	−95	−83	−26	−89

Note. OAT Performance Levels are represented in the table above as follows: 2 = Basic; 3 = Proficient; 4 = Accelerated; 5 = Advanced

Let us consider a few examples of how educators and administrators can begin to set reading growth goals based on the SRI scores of their students. Let us assume that a teacher wants to find out the increase in SRI scores that is required for an incoming sixth-grade student to stay at the same predicted achievement level as Grade 5. Table 10 shows that the Grade 6 OAT Reading Performance Levels are actually slightly lower than the Grade 5 OAT Reading Performance Levels. As a result, the difference between the Grade 5 OAT Reading Performance Levels in Grades 5 and 6 results in a negative number. An incoming sixth-grade student would not have to demonstrate an increase in SRI score to remain at the same predicted achievement level in the spring of Grade 6 as that which was achieved in the spring of Grade 5.

Next, let us assume a fourth-grade student has just completed fall SRI testing and, based on that SRI AP1 (fall) score, is predicted to achieve a Performance Level 3 on the OAT Reading at the end of the year. The teacher wants to find out the increase in SRI scores that is required for that student to maintain the same predicted achievement level through the spring of the school year. Table 10 can be used to estimate this amount: A fourth-grade student with a fall SRI score corresponding to OAT Reading Performance Level 3 would have to grow 213 Lexile units to remain at the same performance level in the spring.

Let us consider one more example, again for Grade 4, only this time looking at the projected SRI score increase necessary to move from predicted OAT Reading Performance Level 3 to 4. We use the spring SRI score that is equivalent to the predicted OAT Reading Performance Level 4 (in Grade 4) as the end point. Table 9 shows that 187 is equivalent to Performance Level 3 in the fall (AP1) and 844 is equivalent to Performance Level 4 in the spring (AP4). The difference between these two scores (i.e., 187 in the fall for Performance Level 3 and 844 in the spring for Performance Level 4) is 657 Lexile units. This translates into an increase of approximately 46 OAT units (using the slope coefficient from Table 5: 0.07 x 657 = 46).

One important question to ask for any reading goal is if it is reasonable to expect such growth in the period of time being considered (usually from early fall to the time just before the administration of the OAT Reading in the spring). Recall that the ultimate aim is not necessarily to affect SRI scores, but rather to affect student reading ability and OAT Reading scores. In the absence of information about specific approaches to reading that a reading teacher may take to improving reading comprehension, we can, as a proxy, look at the typical increases that occur on the SRI from spring to spring. These increases can provide a sense of the typical growth that occurs in one school year. Further, if we look at these increases across different portions of the normative distribution, we can gain a clearer sense of whether typical growth on the SRI varies depending on a student's starting point in the score distribution. Data relevant to this issue are presented in Table 11.

Table 11. Spring to Spring Change in SRI Scores for Selected Percentiles

Grade	3–4	4–5	5–6	6–7	7–8	8–9	9–10
25th Percentile	115	130	65	85	50	45	50
50th Percentile	110	110	70	75	45	45	35
75th Percentile	115	105	65	60	50	35	25

Note. Students' starting point in score distributions can dictate amount of expected growth in the SRI.

Many parents, teachers, and administrators want to know if a student is making enough progress to keep up with or catch up to state standards. Lexile measures are developmental scale scores. This means a student's score can be interpreted across grade levels. Therefore, a score of 220L means the same thing whether the student is in Grade 2 or high school. Typically, students performing below grade level make greater gains than students performing above grade level. We can use this predictable pattern in student gain data to create one set of growth goals that correlate to state expectations using the previous alignment table. The growth goals in Table 12 can be applied to all students regardless of their OAT Reading Performance Levels.

Table 12. SRI Student Growth Goals for Grades 3–6

Grade	OAT Reading Performance Level (2008)	SRI AP1 Lexile	SRI AP4 Lexile	Gain Needed to Show One Year's Growth	Additional Gain Needed to Show Two Years' Growth
3	Proficient	102	300	300 − 102 = 198	400 − 300 = 100
4	Proficient	187	400	400 − 187 = 213	676 − 400 = 276
5	Proficient	544	676	676 − 544 = 132	581 − 676 = -95
6	Proficient	492	581	581 − 492 = 89	—

To determine if a student made a year's growth relative to the state standards, compare the student's growth to the type of growth expected from groups of students with the same SRI Lexile, not at the same grade level. To do so, find the value in the "SRI AP1 Lexile" column that most closely matches the student's performance. For example, if a sixth-grade student has an SRI Lexile of 320L, then the student score would need to increase by 213L to show one year's growth and by 489L (213 + 276) to show two years' growth. If the student's end-of-year Lexile is 533L, the student will have completed one year's growth. If the student's end-of-year Lexile is 809L, the student will have completed two years' growth. The same process can be used to calculate growth goals for all students, regardless of their grade level. Students who are below grade level may need to make two years' growth for two to three consecutive years to catch up.

Note that your state's standards may require students to demonstrate more than one year's growth each year in order to maintain proficiency from the spring of one grade level to the fall of the next grade level. For example, students who score 400L in the spring of fourth grade demonstrate reading performance equivalent to Performance Level 3. However, students who score 400L in the fall of Grade 5, just months later, are demonstrating reading performance predicted to be equivalent to Performance Level 2.

Principals and teachers alike can use these tools for parent conferences and other meetings that require clear presentation of the progress of an individual student or group of students. The SRI software contains a Student Progress Monitoring Graph that can be used by students to monitor growth goals following SRI testing.

CONCLUSION

The information presented in this paper demonstrates how the SRI can be administered in a systematic way to improve instruction and monitor and report student achievement in the context of state assessments. The results of this study reveal that the SRI statistically correlates to end-of-year state test results in Ohio.

Due to this correlation, teachers can obtain the reading comprehension data they need throughout the year to monitor student progress, set goals, and adjust instruction appropriately. Most importantly, implementing the SRI can support a school district's goal of ensuring that all students achieve reading success.

REFERENCES

American Institutes for Research. (2008). *Ohio Achievement Test, Reading and Mathematics Grades 3–8, Writing Grades 4 and 7, Science Grades 5 and 8, Social Studies Grades 5 and 8, May 2008 Administration, Operational Technical Report (2008).* Retrieved from Ohio Department of Education website: http://www.ohiodocs.org/Technical%20Docs/TR%202008%20-%2015%20OAT%20Technical%20Report%20SP08.pdf

Knutson, K. A. (2002). Scholastic reading inventory-interactive academic gain score analysis. West Palm Beach, FL: School District of Palm Beach County.

Lennon, C., & Burdick, H. (2004). The lexile framework as an approach for reading measurement and success. Retrieved from Metametrics website: http://www.lexile.com

Ohio Department of Education, Offices of Curriculum, Instruction, and Assessment. (2004). *Summary of Ohio Reading Achievement Test Blueprints.* Retrieved from http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=222&ContentID=7805&Content=69266

Ohio Department of Education, Offices of Curriculum, Instruction, and Assessment. (2008). Ohio Achievement Tests, May 2008 Administration Statistical Summary. Retrieved from http://www.education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1143&ContentID=9479&Content=77476

Ohio Department of Education, Offices of Curriculum, Instruction, and Assessment. (2009). *Ohio Achievement Assessments: Family Report Interpretive Guide, Spring 2009.* Retrieved from: http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=222&ContentID=17597&Content=89328

Scholastic, Inc. *Scholastic Reading Inventory Technical Guide.* (2007). Retrieved from http://edproductsupport.scholastic.com/content/techsupport/sri/documentation/SRI_Tech_Guide_05_10.pdf

ABOUT THE AUTHOR

Kimberly Ann Knutson

From 2000–2008, Kim Knutson, Ed.D., was a test development and evaluation specialist for the School District of Palm Beach County, Florida. In this role, she was responsible for aligning results from the Scholastic Reading Inventory to Florida Comprehensive Assessment Reading Test (FCAT) results, and developing a growth goals model based on initial student performance and state reading standards. Her work with Scholastic Reading Inventory (SRI) developed into a collaborative partnership with MetaMetrics and Boca Raton Community Middle School to develop a school-wide demonstration of the Lexile Framework. This project generated data that was used to study the relationship between reading growth and numbers of words of targeted text read per year.

Dr. Knutson completed her doctorate in Educational Leadership at Florida Atlantic University where she was awarded the Melby Fellow in Community Education. Prior to joining the school district, Knutson was a program director at the South Florida Annenburg Challenge where she facilitated grants to support school improvement initiatives. She has presented at national conferences and published articles on topics including community education, self-directed learning, and leader social interest. She has taught testing and evaluation, applied research methodology, and leadership theory to undergraduate and graduate students at Florida Atlantic University and Barry University and is an evaluation consultant. She has consulted with other districts and schools in Florida and Massachusetts about 1) aligning SRI-I results to state reading achievement levels and 2) monitoring student growth in relation to state standards.

SCHOLASTIC

SRI **SCHOLASTIC READING INVENTORY**®

PROFESSIONAL PAPER

Scholastic Inc.
557 Broadway
New York, NY 10012
1-800-SCHOLASTIC