

## *How Prepared are Students for College-Level Reading? Applying a Lexile<sup>®</sup>-Based Approach*

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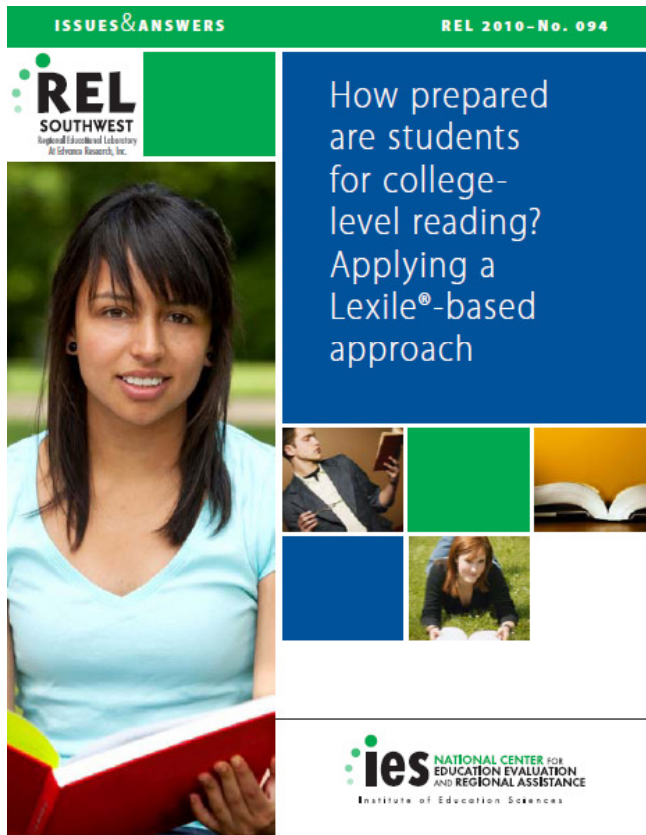
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# Study Summary

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This study develops and applies a new methodology to determine the proportion of grade 11 students whose TAKS-ELAR scores indicate their readiness to read and comprehend textbooks used in entry-level English courses in the University of Texas system.

# Why This Study?

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- **Research shows many students are not graduating college/career ready**
  - 29 percent of students enrolled at four-year public institutions nationwide required remediation (Strong American Schools 2008).
  - 24 percent of students at Texas four-year public institutions required remediation (Terry 2007).
  - Studies examining the difficulty level of reading materials required in the workplace (such as employment applications and job training materials) indicate students are graduating unprepared for workplace as well (Williamson 2004, 2006).

# What Methods Exist To Evaluate Students' College Readiness?

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- The ACT and SAT both include college readiness benchmarks, but
  - Only 29 percent of Texas students took the ACT in 2008 (ACT 2009).
  - Only 50 percent of Texas students took the SAT in 2008 (TEA 2008).

# Developing An Inclusive Method For Evaluating College Reading Readiness

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- The ability to read entry-level college textbooks is one dimension of college readiness.
- This study uses the Lexile Framework for Reading to link student reading abilities and the reading levels of entry-level college textbooks.
- Because student Lexile measures are provided as part of the TAKS, the reading readiness of all students who take the TAKS can be assessed using this new method.

# What Are Lexiles?

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## The Lexile framework:

- Is a linguistic, theory-based method developed by MetaMetrics, Inc. for measuring the reading difficulty of prose texts and the reading capacity of students.
- Uses two variables (sentence length and word frequency) to assign reading difficulty values to passages of text.

# How Are Lexiles Measured?

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- The Lexile scale ranges from 0L (for emerging readers and beginning texts) to 1700L (for advanced readers and texts).
- A student's Lexile measure corresponds to books the student is likely to read with 75 percent comprehension (White and Clement 2001).

# Lexiles in Texas

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- Lexiles have been used as part of the assessment and reporting system in Texas since 1999.
- A 2005 study conducted at the request of TEA resulted in a TAKS—Lexiles conversion table (TEA 2005).
- Lexiles are included on the annual TAKS parent report (TEA 2009).

# The Lexiles Methodology

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- This study links Lexile measures for:
  - Students who took the exit-level grade 11 TAKS-ELAR or TAKS Accommodated-ELAR in April 2009.
  - Textbooks used in fall 2009 entry-level English courses at the nine schools in the University of Texas system.

# Student Sample

## Demographic characteristics of students who took the grade 11 exit-level TAKS–ELAR or TAKS–ELAR Accommodated in April 2009

Characteristic	Percentage of students
<b>Gender</b>	
Female	50.2
Male	49.7
<b>Race/ethnicity</b>	
American Indian	0.4
Asian	4.0
Black	13.9
Hispanic	41.1
White	40.7
<b>Economic status</b>	
Economically disadvantaged	41.8
Not economically disadvantaged	58.1
<b>Limited English proficient status</b>	
Classified Limited English proficient	4.5
Not currently classified Limited English proficient	95.4
<b>Special education status</b>	
Receiving special education services	5.7
Not receiving special education services	94.3

# Why The UT System?

- More students—30 percent of all Texas students attending a Texas public four-year institution in the fall of 2008—were enrolled in University of Texas System campuses than any other system in the state (THECB 2009a, 2009b).
  
- The nine schools in the UT system range in
  - Size
  - Location
  - SAT and ACT scores for first-year students
  - Racial/ethnic composition

# Characteristics of UT System Schools

Characteristics of the nine universities in the University of Texas system, 2008/09 (percent unless otherwise indicated)

Characteristic	Arlington	Austin	Browns ville	Dallas	El Paso	Pan American	Permian Basin	San Antonio	Tyler
<b>Enrollment</b>									
Total enrollment (number)	25,084	49,984	17,197	14,943	20,458	17,534	3,496	28,413	6,117
International enrollment	10.7	8.1	3.0	15.3	10.2	5.3	0.7	3.3	1.3
Admissions rate	76.2	43.5	100.0	53.7	99.0	85.1	90.5	88.0	80.0
<b>Gender (fall 2009)</b>									
Female	53.0	50.7	60.0	44.9	54.9	57.1	60.4	50.9	60.7
Male	47.0	49.3	40.0	55.1	45.1	42.9	39.6	49.1	39.3
<b>Race/ethnicity<sup>a</sup></b>									
Asian	11.9	17.0	0.4	21.3	1.3	1.4	1.4	6.6	2.3
Black	15.6	4.8	0.4	7.7	3.1	0.7	5.4	8.2	9.7
Hispanic	17.0	17.7	94.2	10.9	83.6	91.1	36.8	44.1	6.9
White	52.8	59.3	4.3	58.9	11.2	6.0	54.5	40.3	78.8
Other	2.7	1.2	0.6	1.3	0.7	0.7	1.9	0.8	2.2
<b>Test scores for middle 50 percent of first-year students</b>									
SAT composite <sup>b</sup>	950–1190	1100–1360	Not required	1080–1350	810–1030	830–1040	910–1100	920–1140	960–1170
ACT composite	20–25	24–30	Not required	24–30	16–21	17–21	19–23	19–24	20–25

# Why English Textbooks?

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- English is a requirement for all college students regardless of major.
- It was hypothesized that English textbooks would be likely to contain enough prose (at least 50%) for a Lexile measure to be generated.

# Identifying Entry-level English Courses

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- The Texas Common Course Numbering System is a system used to ensure comparability of courses when transferring credits from one institution to another.
- The THECB provided additional guidance on which courses were considered entry-level across system schools.

# Entry-level English Courses In UT System Schools

Entry-level English courses, by University of Texas system school

University of Texas system school	Course number	Course title
Arlington	ENGL 1301	Critical Thinking, Reading, and Writing I
	ENGL 1302	Critical Thinking, Reading, and Writing II
Austin	RHE 306	Rhetoric and Composition
Brownsville	ENGL 1301	English Composition I
	ENGL 1302	English Composition II
	SPCH 1315	Applied Communication
	SPCHU 1318	Interpersonal Communication
Dallas	RHET 1101	Oral Communication / Critical Thinking
	RHET 1302	Rhetoric
El Paso	COMM 1301	Public Speaking
	COMM 1302	Business/Professional Communication
	ENGL 0111	Expository Composition Workshop
	ENGL 1311	English Composition
	ENGL 1312	Research and Critical Writing
	ESOL 1309	Writing and Reading in English for Non-Native Speakers
	ESOL 1311	Expository English Composition for Speakers of English as a second language (ESL)
	ESOL 1312	Research and Critical Writing for Speakers of English as a second language (ESL)
	ESOL 1406	Basic English Sentence Structure
	ESOL 1610	Intermediate English for Speakers of Other Languages II
ESOL 1910	Intermediate English for Speakers of Other Languages I	
Pan American	COMM 1302	Introduction to Communication
	COMM 1303	Presentational Speaking
	ENG 1301	Composition
	ENG 1302	Rhetoric
Permian Basin	ENGL 1301	Composition I
	ENGL 1302	Composition II
San Antonio	COM 1043	Introduction to Communication
	COM 1053	Business and Professional Speech
	WRC 0103	Developmental Writing
	WRC 1013	Freshman Composition I
	WRC 1023	Freshman Composition II
Tyler	ENGL 1301	Grammar and Composition I
	ENGL 1302	Grammar and Composition II
	SPCM 1315	Fundamentals of Speech Communication

# Identifying Textbooks Used In Entry-level English Courses

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- Campus bookstores at each institution were contacted to identify the required readings for each section of the fall 2009 entry-level English courses.
- A total of 83 textbooks were identified.

# Assigning Lexile Measures To Textbooks

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- The textbooks were ordered and sent to MetaMetrics, Inc. (developer of the Lexile framework) for analysis.
- 74 of the 83 textbooks consisted of at least 50% prose and could be assigned a Lexile measure.

# Determining Textbook Uses

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- *Textbook uses* were calculated to account for the fact that some books were used in multiple courses and multiple sections, while other books were only used in a single course or section.
- The THECB provided section enrollment data for fall 2008 for this calculation.

# Sample Of Study Textbooks

Sample textbooks with assigned Lexile measure and number of textbook-uses

Textbook	Lexile measure	Textbook uses
Coopman, S., and Lull, J. (2009). <i>Public speaking: the evolving art</i> . Boston: Wadsworth/Cengage.	1190L	222
Crowley, M., and Stancliff, M. (2008) <i>Critical situations: a rhetoric for writing in communities</i> . New York: Pearson/Longman.	1240L	570
Ditiberio, J., and Hammer, A. (1993). <i>Introduction to type in college</i> . Palo Alto, CA: Consulting Psychologists Press.	1100L	1,103
DiYanni, R. (2008). <i>Literature: approaches to fiction, poetry, and drama</i> (2nd ed.). Boston: McGraw-Hill.	1120L	18
Dobkin, B. (2003). <i>Communication in a changing world</i> . Boston: McGraw-Hill.	1190L	13
Dodd, C. (2008). <i>Managing business and professional communication</i> (2nd ed.). New York: Pearson.	1160L	389
Dollahite, N., and Haun, J. (2006). <i>Sourcework: academic writing from sources</i> . Boston: Houghton Mifflin.	1150L	90

# LINKING THE STUDENT AND TEXTBOOK DATA:

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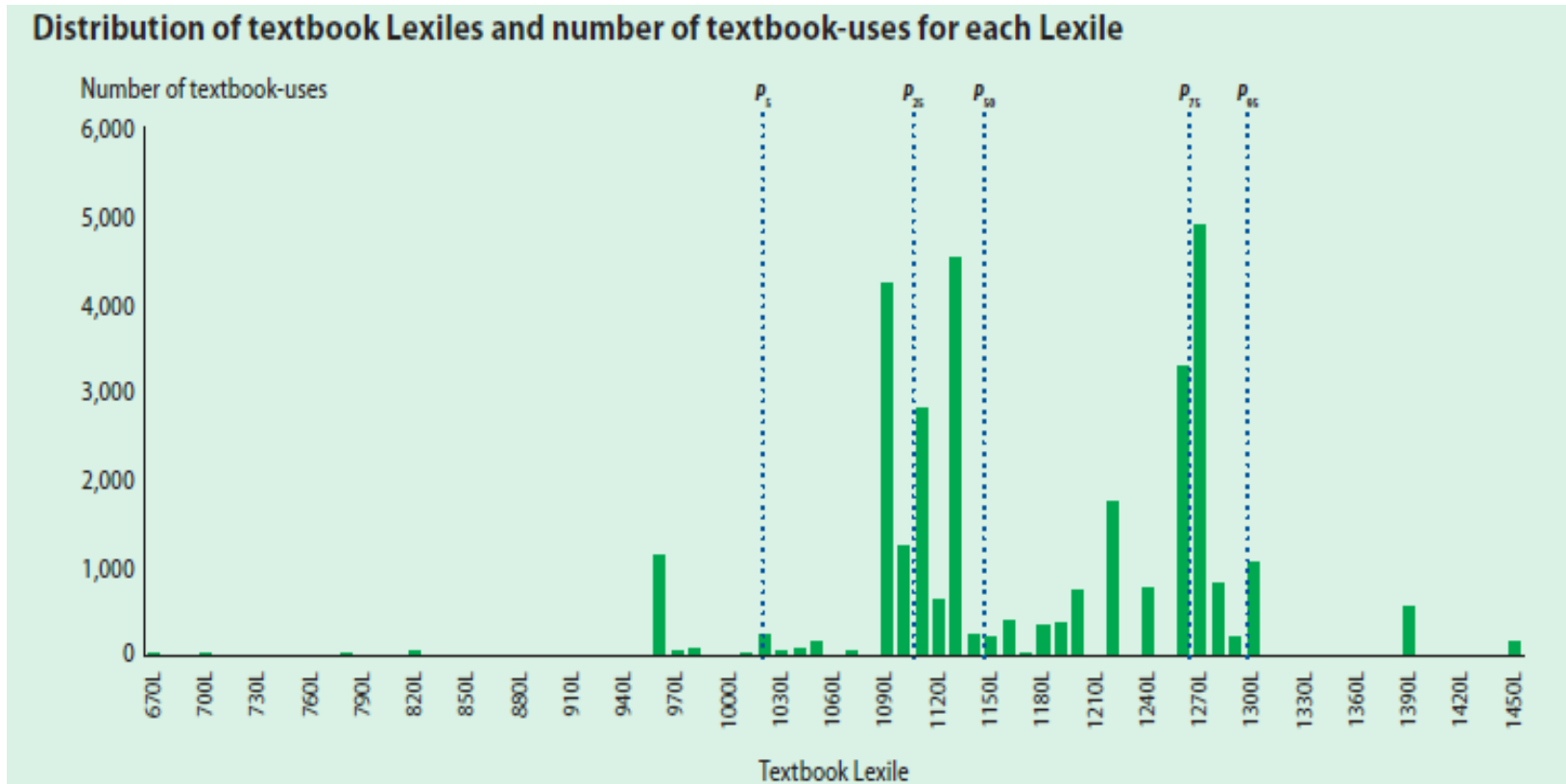
## STEP 1

A two-step procedure was applied to link the student and textbook data:

*Step 1: Determine the reading difficulty levels (percentile) of the textbooks*

This was done by calculating the cumulative freq. distribution of textbook-uses and finding the corresponding Lexiles

# Results of step 1



# Linking the student and textbook data:

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## Step 2

A two-step procedure was applied to link the student and textbook data:

*Step 2: Calculate the percentage of students who can read at each specified percentile level) of the textbooks.*

This is a mapping of the textbook-use Lexile distribution to the student TAKS Lexile distribution

# Results Of Step 2

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## Percentage of students able to read and comprehend textbooks at selected percentiles

Percentile	Lexile measure	Percentage of students at or above Lexile measure
5th	1020.43	91.0
25th	1106.22	84.6
50th	1143.98	80.2
75th	1264.64	61.9
95th	1297.05	51.2

*Note:* Comprehension is measured at the 75 percent level.

# Findings And Conclusions

Percentage of students able to read and comprehend textbooks at selected percentiles

Percentile	Lexile measure	Percentage of students at or above Lexile measure
5th	1020.43	91.0
25th	1106.22	84.6
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75th	1264.64	61.9
95th	1297.05	51.2

Note: Comprehension is measured at the 75 percent level.

- About half of public school students in grade 11 in Texas are prepared to read textbooks used in entry-level English courses in the University of Texas system.
- 51 percent are able to read and comprehend 95 percent of the textbooks used in entry-level English courses.
- 80 percent are able to read and comprehend 50 percent of the textbooks.
- 9 percent are able to read no more than 5 percent of the textbooks.

# Study Limitations

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- Findings are limited to reading readiness, one aspect of college readiness.
- Findings do not reflect improvements in reading skills that might occur during the senior year of high school.
- Findings are not disaggregated for students who plan to attend UT system schools versus students with other postsecondary plans.

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