The Lexile Framework: Lexile Score and Student Reading Attitude

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THE LEXILE FRAMEWORK: LEXILE SCORE AND STUDENT READING ATTITUDE

by

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Chapter One

STATEMENT OF THE PROBLEM

Introduction

The importance of reading is emphasized in education and carried throughout life. The ability to read well leads to the skill of interpretation, which leads to new understandings and expanded knowledge. Educational professionals are aware of the importance of reading and are continually researching best practice.

Students undergo testing involving reading on a regular basis. The implementation of the No Child Left Behind (NCLB) (2001) law, now superseded by Every Student Succeeds Act (ESSA) (2015) added testing requirements for each district. NCLB testing required districts to set goals and monitor student progress. Each year every district is required to review the scores their students achieved on their state mandated tests to see if they met their Annual Yearly Progress (AYP). Schools not meeting the AYP target and goals could face funding sanctions at both the state and national levels. Recently, states were offered more flexibility within the Elementary and Secondary Education Act (ESEA) and NCLB law. The flexibility allows states to pursue comprehensive plans of their own design to improve the educational outcomes of students and improve quality of teaching. Minnesota applied for a waiver within the NCLB law. The waiver allows Minnesota to use a different accountability system to measure how schools are doing. It will allow the Minnesota Department of Education to work with educational stakeholders of districts to implement research-based solutions of districts in most need (United States Department of Education, 2013). With this in mind, school administrators, curriculum directors and teachers are
searching for best practices to improve a student’s reading ability. Reading ability is the power or skill a student has to interpret the meaning of symbols, letters, and words that comprise written text.

Reading ability improvement and monitoring includes a wide range of products, methods and strategies for a school environment. One reading ability measure is called Lexile. A company called MetaMetrics developed Lexile. The purpose of a Lexile is to have an equal-interval scale to measure reading ability. Using the Lexile Framework, Smith (1989) reported that based on an analysis of three nationally normed tests on reading comprehension, the fiftieth percentile-graduating senior is reading at an average of a 1022 Lexile.

To put this in context, a New York Times newspaper article has a Lexile of 1380 and a Time magazine article has a Lexile of 1070. Some Lexile measures of materials individuals will use for the rest of their lives include a Federal Tax Form W-4 which has a Lexile of 1260 and an application for a student loan which has a Lexile of 1270. Lexile is just one measure a student can use to track personal growth in reading ability.

McTague and Abrams (2011) found a positive impact on a scaffolded program that involved access to self-selected books. In their study, students choose books they could read while offering new strategies for book selection. A study by Taylor, Frye and Maruyama (1990) supported the widely held belief that student time spent on silent reading at school will help improve reading ability.

This paper examines the effectiveness of independent practice reading during Sustained Silent Reading (SSR) and student attitude toward reading. Students will take three or four Scholastic Reading Inventory (SRI) assessments in one school calendar year
or nine months. The information will allow District 484 to determine if students’ Lexile scores are improving or if alterations in the program need to be made.

**Background**

Scholastic Reading Counts (SRC) was implemented at Healy High School in 1999. Administration and teachers saw this program as an option to help increase student achievement on the state mandated reading test. The media specialist and other Language Arts teachers looked at reading program options. They choose SRC because of the wide variety of titles students had access to read. The teachers also liked the ability to set goals with students to read a certain number of words. Reports were easy to print out and share with parents. Next, the Language Arts department added reading requirements to their coursework after the purchase of SRC. Students were then required to read books on their own outside of class and take an electronic comprehension test in SRC when they completed reading the book. Sustained Silent Reading (SSR) was also implemented during this implementation of SRC. During each school day the last fifteen minutes of second block was a time that teachers promoted and demonstrated SSR time. Students were encouraged to read their Reading Counts book during SSR time.

In the fall of 2007, SSR time was dropped from the school schedule due to a schedule and administrative change. In the fall of 2009 Language Arts teachers wanted a way for students to self monitor their reading ability. After some research the Language Arts department decided to implement new criteria for passing their courses dealing with SRC. Under these new criteria, students were required to read books for their Language Arts courses, but now students needed to read within their Lexile range. The Lexile range was a range assigned to each student upon the completion of Scholastic Reading Inventory (SRI)
assessment. A Lexile range is 100 below a Lexile score and 50 points above the same Lexile score. This process, still in place today, has the SRI assessment administered three times a year and assigns a student a Lexile score based on the number of correct responses given in the SRI assessment. The student then use their Lexile measure or score to select and read books within that Lexile range. Administration and teachers' rationale was then, and is now, that students are challenging themselves more if they read books within their individual Lexile range rather than reading books they choose that are at any Lexile level.

**Problem Statement**

Students in District 484 are required to read books outside of class and take a ten-point Scholastic Reading Counts computerized comprehension test as part of a Language Arts requirement. After the implementation of Follett’s Destiny, an online card catalog software, students in grades 7 – 12 were given instruction on how to search Destiny based on personal interest and Lexile range. With all of these opportunities to choose books based on personal interests, on several occasions the following scenario occurs: rather than a more challenging book, students often choose books that are fewer than 100 pages and have a Lexile well below their reading level to fulfill their reading requirements. The SRC program suggests that choosing books lower than a targeted Lexile range will not challenge or stimulate students to increase their reading ability.

**Research Questions**

Will students increase their Lexile reading level if they practice independently reading at least 200,000 words in any Lexile over a course of each quarter or every nine weeks?

Does student attitude affect Lexile score improvement?
Will students’ attitudes increase favorably towards reading if given a choice in reading material and not required to read within a Lexile range?

Assumptions

Participants in this study are students at Healy High School. Students will be given the same instructions when taking the SRI assessment and the Reading Attitude Survey. Students will be taking the assessment on a district Chromebook during their assigned Language Arts course.

Other assumptions:

- Students read at least 200,000 words during the 10 week study,
- Students will read the entire book before taking the SRC assessment,
- Students will take their own test in SRC,
- Students are not reading a condensed version of the book – such as Cliff or Spark Notes.

Significance

As indicated previously in this chapter, there is research to show how practice reading can improve a student’s reading abilities, but little research is available on practice reading in accordance with using an individual’s Lexile level. There is a need to look at whether or not students will improve their reading ability or Lexile level if they practice reading a book of their choice at any Lexile level. Students deserve the right to participate in best practice opportunities.

Definition of Terms

Academic Standards – defines what a student should know and be able to do in a particular grade as determined by National or State Education Departments.
**Destiny Library Manager** – Destiny is a web-based card catalogue system.

**Lexile** – “is a unit of measurement that is used to determine the difficulty of text and the reading level of readers. It is an equal interval scale and can be used to measure growth.” (Scholastic, 2006, p. 215).

**Lexile Framework** – “The Lexile Framework is a system that can help determine the reading level of any written material – from a book to a test item. The Framework can also be used to assess a reader’s reading comprehension level. After test results are converted into Lexile measures, readers can be matched to reading materials on their own level.” (Scholastic, 2006, p. 215).

**Lexile Scale** – Lexiles range from 200 – 1700. A typical range is from 200 for beginning readers to 1700 for advanced readers. Lexile text below 200 represents beginner reader (BR) material. BR is a code standing for materials below 200. Text above 1700 can be reported as 1700+ or the actual number. The highest number on the scale is 2000.

**MCA-II Achievement Levels** – results on the MCA-II are reported in four different achievement levels: Level D (Does Not Meet the Standards); Level P (Partially Meets the Standards); Level M (Meets the Standards); Level E (Exceeds the Standards). These are generic descriptions that define achievement related to the appropriate grade level. (Consolidated State Application Accountability Workbook, 2008, p. 8-9).

**MCA-II Measure** – a student’s achievement in the state’s academic standards.

**Reading Ability** – is when a student has the power or skill to interpret the meaning of letters, words, and symbols.
**Scholastic Reading Inventory (SRI)** – is a standardized reading assessment program, designed to measure how well students read text and the varying difficulties of the text itself.

**Scholastic Reading Counts (SRC)** – “is an independent reading program for Grades K–12, which combines reading practice and software-based reading assessment” (Scholastic, 2006).

**Scholastic Achievement Manager (SAM)** – is a management system for Scholastic Reading Counts and Scholastic Reading Inventory. The administrator of this account can prepare reports and track progress of individuals as well as classes for SRI and SRC in the SAM database.

**Sustained Silent Reading (SSR)** – is when students have time to read independently in a classroom setting.

**Conclusion**

This chapter introduces the framework of Lexile and reading ability as it relates to improvements in an individual student’s reading ability in a District 484 Language Arts course. This chapter also contains definitions and overviews for Scholastic Reading Counts, Scholastic Reading Inventory, the Lexile Framework, and using these products in an educational setting.

This study looked at and evaluated existing practices using SRI, SRC, and the Lexile Framework. ISD 484 will determine if the existing use of SRI, SRC and the Lexile Framework is working as administered or if alterations need to be made for best practice in developing a positive attitude toward reading and program success.
Chapter 2

LITERATURE REVIEW

Criteria

Quality resources are the foundation for making any research project successful. For this study several research databases (ERIC, Google Scholar, JSTOR, Academic Search Premier, and library card catalogues (St. Cloud State University, Healy High School, and PALS) were searched. Topics relating to Lexile, Scholastic Reading Counts, Accelerated Reader, sustained silent reading, attitude toward reading, reading motivation, research-based practices for reading, and reading research methods were searched. Resources were selected if the resource contained documentation from experts in their field, current research, best practices, and methodology that was verified.

Introduction

Individuals teaching over the course of many years have seen fads come and go as a result of research and best practice. Administration, curriculum directors and teachers have made decisions about best practices to currently teach reading for maximum student benefit. Using the Lexile Framework, an educator can match a book or text to a student’s Lexile measure for an ideal fit for maximum challenge and comprehension. While studies have been conducted comparing reading proficiency to sustained silent reading, there is currently not enough data to show the results of Scholastic’s Reading Counts and Scholastic Reading Inventory when paired with the Lexile Framework and student achievement. The purpose of this paper is to collect data to support or refute my thesis that: when students are given greater choice in reading material they will improve their reading attitude and as a result their Lexile score will increase.
Reading in Life

“Reading comprehension is the most tested construct in education,” (Stenner, 1996, p. 9). Reading comprehension is the best predictor of success in higher education and on the job performance. Stenner (1996) reports that as many as one-third of Americans are functionally illiterate, that is, unable to comprehend what they read in employee manuals or newspaper articles.

Readers encounter written text in daily activities. If students read passages that are above their comprehension level they could struggle with the material and in turn this affects more than English class. Archer (2011) correlates low reading levels with “poor achievement in mathematics, spelling and writing.’ Lower reading achievement also correlates with school dropout rates, failure to attend college and the ability to hold successful employment.

Role of Media Specialist

*Empowering Learners: Guidelines for School Library Programs (2009)* states “reading is a foundation skill for learning, personal growth, and enjoyment. The degree to which students can read and understand information in all formats (for example, picture, video, print) and all contexts is a key indicator of success in school and in life.” (p. 12). One of the jobs of a library media specialist is to help students develop a love of reading. The media specialist is knowledgeable of different learning styles and teaching methods and offers different types of materials at a variety of reading abilities for her clientele. Finding the right book may help hook a student on the love of reading for the first time as the student is carried from reality as part of their reading experience.
In the case of the Lexile Framework, a library media specialist needs to show students how to search for books for various pursuits. Krashen (2002) mentions that a book should not be selected solely because it is the right Lexile, rather the Lexile Framework should be the first step in selection, but never the only step in selection.

**What Works**

One way to get a student engaged with reading is to offer students time to read silently. Luck (2010) reported that students who participate in sustained silent reading during the school day read more on their own when given the opportunity to read and have exposure to books. Libraries need to be open, and librarians need to promote books through book talks, announcements, and displays. Topping, Samuels, and Paul (2007) discussed the positive relationship between Engaged Reading Volume (ERV) (a measure of quantity with elements of quality) and gains in reading achievement.

Toppings et al. (2007) also concluded that practice does not make perfect for reading practice only. Practice is made perfect when effective instruction was paired with reading practice. Toppings et al. (2007) concluded the presence of a computer based assessment system is unlikely to have any impact on reading achievement. Improvements in students’ reading abilities are present when effective classroom guidance toward comprehension and monitoring reading practice are present. This finding was the result of a study of 45,000 students who read more than 3 million books.

**Lexile Framework and Theory**

The Lexile Framework is based on two factors, semantic difficulty and syntactic complexity. Semantic difficulty is also referred to as word frequency. To determine the semantic difficulty the Lexile Framework looks at how often a word is used in a collection
of 600 million words. Semantic difficulty is not determined by how often a word appears in a specific passage. Syntactic complexity is a powerful indicator of sentence difficulty. Longer sentences are typically more difficult because they contain more clauses and communicate more information. Shorter sentences contain less information and require less short-term memory to recall information.

The Lexile Analyzer is the engine that powers the Lexile Framework; the Lexile Analyzer is the software program designed to determine the readability of a book or passage. The Lexile Analyzer uses the syntactic complexity and semantic difficulty to determine a score, which is reported as a Lexile. Lexile is an equal unit of measure that offers many more steps or equal units of measure than other traditional readability formulas.

MetaMetrics, the developer of The Lexile Framework, uses several different codes for analyzing text. According to Mesmer (2008) some of these categories include nonconforming (NC) text, illustrated glossary (IG), beginning reading (BR) text, nonprose (NP) text, graphic novel (GN), and adult-directed (AD) text. NC text has content that is appropriate for a younger audience but the difficulty is too hard for the reader. IG text is a book that may contain independent pieces of text along with graphics such as an encyclopedia. BR is for text scoring a Lexile of 200 and below. NP is text that contains 50% or more of text that is not prose. Text may be poems, raps, music lyrics, and plays. Text such as poems, songs and plays cannot be analyzed because it lacks proper punctuation. GN is texts that are written in graphic novel format. AD is a text that is not usually read by a younger individual. This text is meant for an adult to read to a younger audience while adding instruction.
Lexile Scale and Measure

Lexile is reported as several different scores. Generally a score is reported as a number followed by a letter L. In many instances a Lexile score may be preceded by a code. These codes were referenced in the preceding section (example: AD). The higher the Lexile Measure, the more difficult the material or the more ability a student need to possess for comprehending a text or prose selection (Smith, 1989).

To improve student success in reading, a student should be given materials that will challenge them while also providing success. This success does not come with reading. Students must have response requirements. The response requirements assure that students are given materials that are properly targeted for their reading and comprehension level.

Stenner (1996) finds a 75% targeted success is the ideal rate to work with in a Lexile measure. For example if a student has a Lexile of 600L and reads a 600L book or passage the student will retain 75% of what they read. If the same student reads a passage at 400L difficulty the odds improve to 90% comprehension rate, but if the same student reads a text at 1000L the percent of success drops to 25%.

Smith (1989) reports on a study done by Squires, Huitt and Segars (1983), which found that “reading achievement for second graders peaked when the success rate reached 75%. The 75% success rate is also supported by the findings of Crawford, King, Brophy, and Everstor (1975)” (p. 31).

Working with materials on the edge of the Lexile rate or at the 75% comprehension rate, ensures students’ understanding of the material without being over-challenged. Readers will become less confident when given text that is too difficult. A 50%
comprehension rate would cause frustration according to Smith (1989). Matching students with Lexile can help students who struggle. Lexile could be an intervention that helps students stay in school.

**Lexile Validity and Reliability**

According to Mesmer (2008) the reliability of The Lexile Framework is consistent. In fact, Mesmer calls the Lexile Framework a program with “excellent psychometric properties” (p. 52).

**Advantages and Disadvantages of Lexile**

Several advantages and disadvantages exist while using Lexile. One of the main advantages is the Lexile Framework measures student reading levels and text difficulty using the same Lexile units. Another advantage includes the broad range of measurement. Lexile range is reported as 200 – 1700. Students below 200L are reported as Beginning Reader (BR) and students that can read above 1700 will be reported as 1700+. A third advantage includes the Lexile Analyzer. This form of measurement works with a collection of 600 million words. With computer technology this form of measurement has never been easier. The computer program has brought to the Lexile Framework increased sampling power and accuracy.

Disadvantages exist in the use of the Lexile framework. The first disadvantage is that users have a hard time understanding the units of measure with Lexile. For Lexile implementation to be successful, everyone involved needs adequate training. Converting to the Lexile Framework can be costly for districts. Students need to be assessed to find their Lexile. Finally Mesmer (2008) reported an error in text measurement. A text Lexile level can be 100 points below and 50 points above the obtained Lexile level. This range is
equivalent to a range of at least one-half grade. According to Lennon and Burdick (2004) a student’s reported Lexile score has a standard error of measurement (SEM) of about 70L. Some of the reasoning for the reported error could be student’s physical and mental health or wellbeing, and testing conditions at the time of assessment.

**Reading Programs**

Luck (2010) states Accelerated Reader (AR), is a “computerized information system that provides students and teachers with immediate diagnostic feedback on students’ reading practice” (p. 4). Students take a computer assessment on books read that are in the AR system. AR can be used to track progress of students. For this program to work effectively, Renaissance Learning, the developer of AR, recommends reading 30 to 60 minutes a day. Luck (2010) references results Renaissance Learning found in a study it conducted which concluded “that the average amount of time spent on reading practice for all grades is 7.1 minutes per day” (p. 4).

Several attributes seem to be working for AR. One of these attributes is that students receive immediate feedback after they complete the book test. The program is computer based and the assessment is convenient because it does not require a lot of teacher prep or maintenance time. Toppings et al. (2007) suggest that any computerized formative assessments provide teachers with a way to monitor student’s progress and achievement. The computer program provides easy access to what otherwise can be a daunting task.

Another computer based reading assessment program is Scholastic Reading Counts (SRC). Reading Counts, formerly Electronic Bookshelf, was launched in 1999. SRC is similar to AR in several ways. Students are required to read a book and take a computerized test.
Students are given immediate feedback after completing the book test. Students can only test on the books available in the program. SRC does allow the facilitator to modify the percentage correct to pass the test and the number of times a student can take a quiz. SRC works in conjunction with SRI. Students take the SRI assessment to determine their Lexile score and range.

Narrowing a student to a Lexile range can restrict what choices a student can read. Luck references that a student’s interest in a reading material can have a positive impact on comprehension. Limiting reading choices is just one of many arguments against a computerized information system such as AR and SRC. Other areas of concern are that a multiple-choice test does not allow students to demonstrate their inferential or critical thinking skills. Luck (2010) suggests reading a book or passage could actually reduce intrinsic motivation over time.

**Conclusion**

For students to improve their reading skills, students need to read properly targeted material. By using the Lexile Framework readers are empowered to select books that will stimulate and challenge them. Teachers, librarians, and parents are able to guide students towards materials that they can read and comprehend. Teachers can also provide options when necessary so the students can experience success while learning. Some options may include wider Lexile range, interest assignments for students who do not test well, oral tests or assignments, or assistance looking for books they are interested in in a student’s Lexile range. Narrowing students to a range may limit their choices and lessen their attitude toward selection choice and reading in general.
Research shows that reading success is a predictor of success in high school and later in life. Students who struggle and read below grade level are twice as likely to drop out of high school as those that can read at grade level (Fleishman, 2004).

Sustained silent reading, access to books, frequent response requirements, and instruction are all key aspects for reading improvement within a school district. The jury is still out on whether or not Lexile, SRC and SRI work to improve student’s reading ability. SRC was designed as a reading supplement and not as a curriculum.
Chapter 3

METHODOLOGY

Introduction

This descriptive research study was focused on assessing the application of SRC and SRI on the high school students in a small town in central Minnesota. Healy High School in Pierz, Minnesota is a seventh through twelfth grade building with approximately 560 students. Students attend classes in an eight period day schedule. The eight periods in the day are 47 minutes long. All students have a Language Arts requirement to fulfill. As part of the Language Arts requirement students need to read and complete a computer-based assessment called Reading Counts (SRC), by Scholastic. The test is a randomly selected series of 10 questions, from a pool of 25 plus comprehension questions, based on a book a student has read. The students need to pass the Reading Counts assessment with a score of 70 percent for their Language Arts course.

In the fall of 2009 District 484 in Pierz implemented Scholastic Reading Inventory (SRI). “SRI is an interactive reading comprehension test that provides an assessment of student reading levels, reported in Lexile measures.” (Scholastic, 2006, p. 1) SRI contains over 4,500 questions; each question contains excerpts from original literature, newspaper, magazines, and other periodicals. The test questions emphasize vocabulary and inference skills. When students complete the assessment, students receive their Lexile scores. Lexile scores are reported as low as 200 and up to 1700+. Scores below 200 are reported as beginning readers (BR). Smith (1989) reported that, essentially, the higher the Lexile score, the more difficult the material or the more ability a student possesses for comprehending a prose selection.
With the assistance of the media specialist, students can search Destiny (computerized card catalog distributed by Follett) for books within a range near their Lexile score. Scholastic suggests that students read books within a range of 100-below and 50-above their Lexile measure for success.

Students are assessed three times a year using SRI. The months of assessment are September, January, and May. Students can track and monitor their progress with reports printed for them through Scholastic Achievement Manager (SAM) or in Scholastic Reading Counts (SRC) under the tab titled “check your progress.” One of the marketing points of SRC is students will become intrinsically motivated to monitor their own progress and improve their score when they can track their score.

Part of the job of the media specialist is to monitor and manage the Scholastic Reading Counts (SRC) program. Students use this program to take a ten-question test based on comprehension for the Language Arts requirement. Each test is based on ten questions from the book. The computer randomly chooses ten questions from a bank of up to 30 questions.

**Research Design**

The first part of this study examined existing data to see if students are improving their Lexile score from their last SRI assessment. The collected data was tabulated to determine if there were measurable improvements to an individual’s Lexile score.

The second part of this study looked at student attitude toward reading. A digital survey was distributed in Language Arts classrooms to students. Students were asked to complete the digital survey during class time on their district assigned Chromebook.

The third part of the study was to offer a group greater choice in book selection. Students in one grade were given a choice of what books they want to read. The only
requirement is they completed reading at least 200,000 words each quarter. This could be completed by reading one book, two books or more. Each student picked out books based on interest. The teacher and media specialist conducted weekly book talks, posted trending books on a shelf in the media center and gave one-on-one support during book selection. When students competed a book they could complete a book talk discussion, choice project or take a Scholastic Reading Counts 10-point comprehension quiz. Word count is available online within Scholastic Reading Counts. Students choosing to read choice books may need to calculate the word count on their own (See Appendix A)

**IRB Approval**

The principal investigator applied for approval to the Institutional Review Board (IRB) to work with human subjects. Since the potential participants had the ability to understand what was being asked of them a child assent (See Appendix B) and parent consent (See Appendix C) forms were required for each student participant. The IRB granted approval (See Appendix D).

**Participants**

Four tenth grade English classes participated in the study. Of the tenth grade students, 54 % were female and 46 % were male. The student population was 96% Caucasian, 2 % American Indian and 2% African American. Eighteen of the students were in special education. Of the students who were in special education, 7 were female and 11 were male. Thirty-three students in the tenth grade receive free or reduced lunch. The age range in these particular tenth grade students was fifteen through seventeen years old.
There were 20 staff members and 39 certified classroom teachers at Healy High School in Pierz, Minnesota. The teacher participating in this study has taught Language Arts for 24 years.

The researcher was a graduate student at St Cloud State University in St Cloud, Minnesota, who completed this study to meet her requirements for her master’s degree in Information Media. The study was conducted because as an educator, the researcher saw students’ attitudes changing towards reading. She wanted to learn more about Lexile, attitude, reading and intrinsic motivation.

**Instruments**

Two instruments were used during the research. The first instrument was a reading attitude survey. In order to create a valid and reliable means of measurement, a reading attitude survey created by Ryan and Smith (1995) was used for students in tenth grade. The digital survey was administered at the beginning of the research project before the SRI assessment and again at the end of the research project before the final SRI assessment. Changes in students’ responses on the survey were part of data collection.

The survey used a Likert-scale. The Likert-scale is 4 = makes you very happy, 3 = makes you slightly smile, 2 = makes you mildly upset, and 1 = makes you very upset. The students answered each question with the number of the answer that corresponded with their feelings about recreational reading and reading in school. The survey was divided into two sections. The first 10 questions are related to recreational reading outside of school. The next 10 questions are about reading in school. Each survey was scored by adding the 20 scores together. The lowest score possible is 20 and the highest score possible is 80. The Ryan and Smith (1995) survey was modeled after a reading attitude survey constructed by
McKeanna and Kear (1990). The McKenna and Kear survey is also known as an Elementary Reading Attitude Survey (ERAS). The ERAS is proven to be both a valid and reliable means of measurement.

The second instrument used was the Scholastic Reading Inventory (SRI). The computer based SRI assessment was given in September at the beginning of the school year and again in January and May. The researcher examined the data in order to determine the changes in Lexile scores between the beginning and final SRI assessment for each class.

The first screen of the SRI assessment asked each participant what kinds of books they enjoy reading. Participants could select up to three kinds or genre of books they enjoy. Later when a student finished the assessment, the SRI program gave each student a Lexile score. This score measured the reading ability of the student. Students could choose to see and print a list of recommended titles within a student’s interest and Lexile range. The list provided students a chance to read titles in a comfortable and challenging reading range.

The SRI is a valid and reliable means of testing developed by Metametrics. The measurement provided at the end of an SRI assessment is a result of a measure by means of semantic difficulty and syntactic complexity.

**Procedures for the Collection of Data**

In the winter of 2015-2016, students in English 10 classes started participating in the research study. The researcher administered the survey to all four sections of tenth grade English. After the students completed the attitude survey, all classes took the Scholastic Reading Inventory (SRI).

After the ERAS survey and SRI were completed the teacher announced to all sections of English 10 the changes in their SRC requirement for class. Students were
granted more choice in reading material. The students were required to read 200,000 words in any Lexile. Students had interest assignments. Students were no longer required reading books within the SRC system. Students could choose to do a book talk, create a quiz for SRC, create a book review to be housed in Destiny, or other teacher approved outflow/project options.

To promote choice the teacher and researcher conducted book talks on an every other week schedule. Once every two weeks the teacher brought the students to the media center to search for books with teacher and media specialist help. Students created accounts on Goodreads.com to record what books they read and search for other books similar to and by the same author. Students applied for or updated their public library cards to have greater access to books not owned by the district. The teacher posted quotes or posters of the real life importance of reading. The teacher presented information about the importance of reading and relate everyday tasks to Lexile range. Students started tracking their Lexile and pages read and setting goals for words read in a quarter (See Appendix E).

All classes participated in SSR Monday through Friday for the last 15 minutes of each class. The teacher and researcher modeled SSR. During SSR the students sat quietly at their desks or lounged on the floor while they read their book of choice. The teacher allowed students who forget a book to choose a book from a classroom library and read for the designated time.

**Procedure for Data Analysis**

At the end of the nine-week period, in the winter of 2015-2016 the researcher gave the students the ERAS survey and post-SRI a second time. The data from the opinion survey
was analyzed to determine measurable difference in reading attitude. The SRI data was examined with the survey data to determine if attitude appeared to play a role in growth.
Chapter 4

FINDINGS AND ANALYSIS

Introduction

The objective of this research was to determine if students who participated in SSR for a period of 10 weeks and given choice in reading materials increased their Lexile and reading attitude as measured by SRI and ERAS.

Findings of Reading Attitude

The first hypothesis suggested students’ attitudes may increase favorably towards reading if given a choice in reading material while not reading in a required Lexile range.

The data collected was analyzed to identify if there was a correlation between attitude and ability. The attitude variable of the relationship was measured using the Elementary Reading Attitude Survey (ERAS) (See Appendix F), developed by Michael C. McKenna and Dennis J. Kear, which further breaks reading attitude down into two subsets: recreational and academic.

The results were analyzed by looking at the students’ scores on a Likert scale. Figure 4.1 shows the 4 Likert-type scale answers.

Figure 4.1

4= Makes you very happy
3= Makes you slightly smile
2= Makes you mildly upset
1= Makes you very upset

The Four Choices on the ERAS Likert Scale
One-half of the questions on the ERAS focused on students’ attitude toward academic reading. The questions referred to any school related reading (e.g. How do you feel about reading your textbook?). The second half of the ERAS focused on recreational reading. Recreational reading is reading during non-academic time (e.g. How do you feel about spending free time reading?).

**Findings of Lexile Scores**

Scholastic Reading Inventory (SRI) is an assessment that measures a student’s reading ability as measured by the Scholastic Lexile Scale (See Appendix G). SRI is a computerized quiz only accessible to institutions that hold a paid user subscription license. Scholastic puts SRI on a scale from BR (Below 200) – 2000. Recently, Common Core State Standards raised the suggested Lexile requirements for every grade level (See Appendix H). Students were exposed to both scales during this study.

Both assessments were administered at the start and at the conclusion of the study. The findings and results are organized by their respective research question. Table 4.2 shows the mean, standard deviation and p-value for the two assessments used during this study.
Table 4.2

Means and Standard Deviations on the SRI, ERAS, Recreational and School Reading Attitude Surveys

<table>
<thead>
<tr>
<th>Test</th>
<th>Pretest (n=82)</th>
<th>Posttest (n=78)</th>
<th>P-Value</th>
</tr>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>SRI</td>
<td>1054.2</td>
<td>225.1</td>
<td>1078.7</td>
</tr>
<tr>
<td>ERAS Total</td>
<td>37.86</td>
<td>11.34</td>
<td>42.55</td>
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<td>Rec Reading Attitude</td>
<td>19.3</td>
<td>7.38</td>
<td>22.4</td>
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<tr>
<td>Rec Reading School Reading</td>
<td>18.5</td>
<td>5</td>
<td>20.2</td>
</tr>
</tbody>
</table>

Means, Standard Deviations and P-Value

The Two-Sample Z-Test was used to test the two hypotheses. The null hypothesis is H₀: M₂ ≤ M₁ and the claim is Hₐ: M₂ > M₁. Using the Two-Sample Z-Test produced a claim p-value of p = .9925 and did not support the claim that scores would improve if given choice in reading material.

Figure 4.3

\[
Z = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}
\]

Two-Sample Z-Test Formula
The participants identified as 10th grade students had an overall mean score of 37.86 at the beginning of the study and 42.55 at the end of the study on the ERAS survey (See Appendices I and J). A 37.86 score finds itself at the high end of “Makes you mildly upset” on the ERAS Likert scale. The score of 42.55 is found within the “Makes you slightly smile” Likert scale value. The scores for the survey could range from 19 to 76. The mean score of the academic portion of the ERAS was 18.52 at the beginning of the study and 20.18 at the conclusion of the study. The mean score of the recreational portion of the ERAS was 19.34 at the beginning of the study and 22.36 at the end of the study. The standard deviation results of the academic and recreational survey results were not statistically significant.

The second hypothesis stated students would increase their Lexile reading level if they practice reading independently at least 200,000 words in any Lexile level over a course of ten weeks.

The 10th grade students took the SRI at the beginning of the study and again the last day of the research project. (See Appendix K) The average growth increase was 24.21 Lexile points in the 10-week period. According to Scholastic (2006) the amount of Lexile growth tends to decrease as grade level increases. Students learning to read make greater gains in their Lexile scoring than students reading to learn. Scholastic (2006) suggests a 50 Lexile annual growth for students in 10th grade based on the student’s mean score of 1054.2 at the beginning of our study. The students ended the study with a mean score of 1078.7. The result of the Two-Sample Z-Test is a p-value 0.68 for the SRI data. The p-value of $p = 0.68$ does not support the claim that Lexile reading levels would improve if a student practiced reading 200,000 words in any Lexile level over the course of ten weeks.
The following chapter will discuss these findings as well as what the findings indicate for the field of curriculum, future instruction and research.
Chapter 5

DISCUSSION AND CONCLUSIONS

Introduction

The results in this experiment found that there is no significant correlation between reading attitudes and reading ability as based on the given set of conditions for this population. Furthermore, the results suggest that SSR, book choice and promoting reading do not have a significant positive connection with a student’s attitude toward school and recreational reading for this population.

However, Luck (2010) noted students who participate in SSR during the school day read more on their own when given the opportunity and have exposure to books. Toppings et al. (2007) discussed a positive relationship between reading quantity and gains in reading achievement. Krashen (2002) suggested students who have access to comprehensible and interesting reading material read more on their own. Students who participate in SSR programs read more independently than those who do not, even years after the SSR program is over. When recreational reading was successfully increased through providing time to read during the school day, “reading ability and literacy development” profoundly increased (Krashen, 2002, p. 20).

Anecdotal evidence speaks to the results Luck (2010), Krashen (2002) and Toppings et al. (2007) achieved in their research. At the beginning of the study students took several minutes to transition from seatwork to SSR, but by the end of the study, students found their comfortable position and were reading in less then a minute. Observations of off-task behaviors decreased over the course of the research. Early on in the research the
investigator noted 10 times off-task for one class and by the end of the study the entire class was only off task two times during their SSR time.

In one particular class a student was off-task 18 times in a 22-minute period. Looking at the student’s loan history, the researcher and cooperating teacher noted the student checked out 21 books in the previous two months. The student only passed two SRC tests during that time. The student frequently wanted to read the most popular student recommended titles, but didn’t finish because the student didn’t enjoy it. The cooperating teacher and media specialist encouraged the student to check out a couple of hi-low books to see if it would spark his interest to finish and feel success. After passing several hi-low books the student successfully read and passed a test on a longer book.

It was also observed that students used the skills learned during mini-sessions on how to search our local library collection and the public library collection to find the next title they wanted to read. Public library requests and library circulation numbers increased during the study period. Students used their Goodreads account to search books similar to a previous title, books by the same author or recommendations by a peer. On several occasions the researcher heard students recommending books to other students who were looking for a book on the shelves.

The SRI offered students immediate feedback in a concrete, user-friendly score. The program then offers a suggested reading list based on genre students select at the beginning of their assessment. The lists of books fall within Scholastic’s suggested reading range. Toppings et al. (2007) notes feedback should enable greater student control over reading activity and achievement.
Students were aware of their SRI score and where they fell on the Scholastic Lexile Scale. Students were given a data-tracking tool (See Appendix F) that shared the differences in the Scholastic Lexile Scale and the 2012 Common Core State Standards for English and Language Arts Learners. Grade level scores are different on each Lexile Scale. Students were encouraged to track their progress and set goals for their next SRI assessment.

Student attitudes toward book choice were observed to be different at the end of the research period. Students were verbally grateful for the opportunity to read any books they wanted. Kirby’s (2003) research finds that student choice is crucial when creating a SSR program. Students in her study had a more positive attitude toward SSR when allowed to choose the books they wanted to read. They also found SSR more valuable when they experienced their teacher take silent reading seriously and model the expected behavior.

Researchers and educators alike are working to find reading strategies that have a positive result on reading achievement. Based upon the research and findings, the researcher sees a need for the improvement of student reading attitudes at school. The researcher recommends students have availability to books in the school collection and the local branch of the public library in a wide variety of Lexile levels and genres.

**Limitations of the Study**

When conducting research, it is important to minimize differences in variables in order to be able to obtain the most accurate information possible. However, nothing is fail-safe. The Scholastic Reading Inventory (SRI) is one way to measure a student’s reading ability; however it has its limitations. The SRI is a computer-based test. Students who have difficulty with screen time may have a difficult time staying focused on task to complete the
test. The SRI is a leveling test. Students may become frustrated when a more difficult question or unfamiliar vocabulary was presented during testing.

The second method of measurement was the ERAS survey created by McKenna and Kear (1990) and later used by Ryan and Smith (1995). The survey has been thoroughly tested for both reliability and validity. Wording of this survey could be seen as a limitation. Once students saw the Likert scale, and noticed the wording was similar on each question, the researcher saw some students click the first answer to each statement without reading the question, impairing the final results.

Other limitations encountered in this research were the population fluctuation of the high school and students signing off on the assent form. During the research process, some students had transferred to other districts and a few students joined the process late, so beginning and ending population sizes were different. The final testing numbers fluctuated due to student attendance problems.

**Ideas to Implement**

Ideally, students and teachers would discuss books in positive ways to achieve better attitudes towards reading and higher reading ability scores. One of the benefits of this reading attitude research is that it has started the conversation in this district between students and staff. The Language Arts team is in the process of selecting new curriculum and developing guidelines for a reading requirement for their courses. By creating and offering meaningful activities for students to do in school, teachers and media specialists are creating a positive reading environment where students may develop positive reading attitudes with a benefit of continuing to be lifelong readers. One area to focus on is to encourage students to read for pleasure. Students need to be able to select books that are of
high interest to them. The media specialist and other staff should book talk with students on a regular basis, and as the year progresses, the teacher and media specialist may ask students to take the role of conducting these book talks. Attitudes are often influenced by experiences, so students need these positive reading experiences to develop a positive reading attitude.

Another strategy for teachers to offer to students is choices in reading material and assignments. Students become empowered when given options. Students take ownership of their learning when put in charge and may choose to do an assignment in an area they excel in.

**Implications of Future Research**

There is much yet to understand regarding reading and attitude. Creating a successful reading program requires research. There is research about SSR, but little research involving SSR, SRI and student reading attitude.

Other topics not measured in this study that played a factor and may merit further research include circulation numbers for our high school collection and public library requests. Both the researcher and the cooperating teacher observed students enjoy having access to new titles outside the school collection. Part of the success of the program was a willingness of administration to allow the researcher or cooperating teacher to leave the building and pick books up from the public library when books became available. This access allows for a level playing field for all students regardless of socio-economic background.

Research in the future could involve transition time from seatwork to SSR, book choice, assignment choice, off-task behavior, teacher-media specialist collaboration, words
read in a year and MCA scores, literature circles, and small group instruction for reading strategies and personalized reading interventions. Each of these topics played a role in this research but was not measured.

**Benefits of this Research**

Based on anecdotal evidence students at Healy High School will benefit from greater choice in reading material, open access to the local branch of the public library, book talks, and SSR. District 484 employees will continue to encourage positive reading attitudes in order to create lifelong readers.

**Personal Reflection**

Being part of this research process has been a positive experience for me. I chose the topic because I wanted to see systemic change in student reading attitudes and foster a positive reading culture in our district. The anecdotal evidence is positive in many ways. Circulation numbers and public library requests have risen dramatically since the start of the study and compared to the previous year, students are recommending books to each other, and students are discussing titles with others and researching what books they want to read next. The changes are not only student related; teachers are more willing to modify requirements to keep the positive reading attitude going. Teachers are recommending books to students; posting books they are currently reading by their classroom door and building a lending library in their classrooms. Good things are happening and with guidance by both the researcher and the cooperating teacher, good things will continue to happen.
REFERENCES


Appendix A
Word Count Formula
1) Find the total number of pages within the text of the story to find A
2) Find the total number of chapters to find B
3) Subtract the total number of chapters from the total number of pages to find C
4) Count the number of words on a full page of text to find D
5) Multiply the total number of words (D) by total number of pages (C) to find E
Appendix B
Child Assent
Dear Sophomore Students,

You are invited to be part of a study examining Lexile framework and student reading attitude. You were selected to take part in this study because you are in a 10th grade Language Arts class.

In this study you will be asked to fill out two anonymous Google Forms and take the Scholastic Reading Inventory (SRI) assessment twice.

During the Google Form survey we will ask you questions about your attitude toward reading in school and personal situations. The questions we will ask are only about what you think. There are no right or wrong answers because this is not a test.

If during the study you decide that you do not want to continue to be a part of the study, you need to tell Mrs. Welle, your parents, or Mrs. Menden. Mrs. Welle will make sure that you do not take the Google Form survey and your SRI data is not included in the results. Your decision to stop being in the study will not be held against you and will not be a problem for you with your education.

When you sign your name on the line with the “X” it means you understand this information and have agreed to be part of the study. If you do not like being in the study at any time, you may tell Mrs. Welle or Mrs. Menden.

X____________________________________   ______________________________

(Signature)   (Date)

______________________________________________________________________________________________

(Print Name)

Please Check One

I would like to participate in the study. _____________

I would not like to participate in the study. _____________
Appendix C
Parent Consent
December 11, 2015

Dear Parents and Guardians,

Your child is invited to participate in a study entitled, “The Lexile Framework: Lexile Score and Student Reading Attitude.” This study is designed to see if there is a correlation between students’ attitude toward reading and reading ability. During the process students will be given book talks, choice projects, exposure to current bestsellers, and unlimited options to complete reading requirements for their English 10 course.

The study is part of my Master of Information Media: Educational Media degree required at St Cloud State University, but the research itself will be completed right in an English classroom at Healy High School. Your child will have greater choices in reading material. They will not be limited to a Lexile reading range.

The study will take 10 weeks to complete, and individual student results will be kept strictly confidential, as the results will be reported as a group.

The purpose of this letter is to inform you participation is voluntary and that not participating will not affect your student’s relationship with Healy High School, St. Cloud State University, or me. You can choose to have your student participate or not.

If you have any questions regarding the study, or want a copy of the results, please contact me by phone: 320-468-6458 x 1210 or by email: rwelle@pierz.k12.mn.us The best times to reach me are before and after school. Marcia Thompson, Assistant Professor, can also answers questions about my research. Contact Marcia by phone: 320-308-2120 or by email: mthompson@stcloudstate.edu

Thank you for your help.

Sincerely,

Roxanne Welle
Media Specialist

Please return this portion of the letter by December 21,2015 to Mrs. Welle in the High School Media Center or Mrs. Menden, their English 10 Instructor

Please include / exclude ______________________ in “The Lexile Framework” research process.
(circle one) (student name)

Parent/Guardian signature: __________________________________________________________
(Parent/Guardian must be subject’s legally authorized representative)

***If this form is not returned by December 21 it is assumed that permission is granted.
Appendix D
IRB Approval
Institutional Review Board (IRB)

Name: Roxanne Welle
Address: 19737 305th Ave
Pierz, MN 56364
USA
Email: rwelle@pierz.k12.mn.us

IRB PROTOCOL DETERMINATION:
Expedited Review-2

Project Title: The Lexile Framework: Lexile Score and Student Reading Attitude
Advisor: Marcia Thompson

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: APPROVED

Please note the following important information concerning IRB projects:
- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (e.g., research-related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

- Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (e.g., research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

Good luck on your research. If we can be of further assistance, please contact the Office of Research and Sponsored Programs at 320-308-4932 or email ldonnay@stcloudstate.edu. Use the SCSU IRB number listed on any forms submitted which relate to this project, or on any correspondence with the IRB.

Institutional Review Board:

Linda Donnay
IRB Administrator
Office of Research and Sponsored Programs

St. Cloud State University:

Marilyn Hart
Interim Associate Provost for Research
Dean of Graduate Studies

OFFICE USE ONLY

SCSU IRB# 1523 - 1896
Type: Expedited Review-2
1st Year Approval Date: 12/9/2015
1st Year Expiration Date: 12/8/2016
2nd Year Approval Date:
2nd Year Expiration Date:
3rd Year Approval Date:
3rd Year Expiration Date:
Appendix E
Student Data Tracking Tool
Name:
LeXile Score:
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- 9th grade
- 10th grade

Words Read:
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- 9th grade
- 10th grade

MCA - state reading testing:
- 3rd grade
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- 9th grade
- 10th grade

Start Testing:
- Sample 1
- Sample 2
- Sample 3

Predictor for MCA:

<table>
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<tr>
<th>Read Comprehension Grade Band</th>
<th>Suggested LeXile Range</th>
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<tr>
<td>3-5</td>
<td>1000 - 7000</td>
</tr>
<tr>
<td>6-10</td>
<td>700 - 900</td>
</tr>
<tr>
<td>11-CDR</td>
<td>900 - 1100</td>
</tr>
<tr>
<td>11-CDR</td>
<td>1100 - 1300</td>
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MCA goal:
LeXile:
Words Read:
Other:

Map your reading LeXile:

<table>
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<th>LeXile Score</th>
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</thead>
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<tr>
<td>1400</td>
</tr>
<tr>
<td>1300</td>
</tr>
<tr>
<td>1200</td>
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<tr>
<td>500</td>
</tr>
<tr>
<td>400</td>
</tr>
<tr>
<td>300</td>
</tr>
</tbody>
</table>

Explore Test
- Reading
- English

Plan Score (ACT prep test)
- Reading
- English
Appendix F
Reading Attitude Survey
Reading Attitude Survey

Directions: Answer the following questions by circling the number below each question.
4= Makes you very happy
3= Makes you slightly smile
2= Makes you mildly upset
1= Makes you very upset

1. How do you feel when you read a book on a rainy Saturday?
   4  3  2  1

2. How do you feel when you read a book in school during free time?
   4  3  2  1

3. How do you feel about reading for fun at home?
   4  3  2  1

4. How do you feel about getting a book as a present?
   4  3  2  1

5. How do you feel about spending free time reading?
   4  3  2  1

6. How do you feel about starting a new book?
   4  3  2  1

7. How do you feel about reading during summer vacation?
   4  3  2  1

8. How do you feel about reading instead of hanging out with friends?
   4  3  2  1

9. How do you feel about going to a bookstore?
   4  3  2  1

10. How do you feel about reading different kinds of books?
    4  3  2  1
Reading Attitude Survey continued

Directions: Answer the following questions by circling the number below each question.
4 = Makes you very happy
3 = Makes you slightly smile
2 = Makes you mildly upset
1 = Makes you very upset

11. How do you feel when the teacher asks you questions about what you read?
   4  3  2  1

12. How do you feel about reading textbooks pages and worksheets?
   4  3  2  1

13. How do you feel about reading in school?
   4  3  2  1

14. How do you feel about reading your textbook?
   4  3  2  1

15. How do you feel about learning from a book?
   4  3  2  1

16. How do you feel when it's time for reading in class?
   4  3  2  1

17. How do you feel about the stories you read in reading class?
   4  3  2  1

18. How do you feel when you read out loud in class?
   4  3  2  1

19. How do you feel about a dictionary?
   4  3  2  1

20. How do you feel about taking a reading test?
   4  3  2  1
Appendix G
Scholastic Lexile Chart
<table>
<thead>
<tr>
<th>Grade</th>
<th>Far Below grade Level</th>
<th>Below Grade level</th>
<th>At Grade Level</th>
<th>Above grade level</th>
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<tbody>
<tr>
<td>1</td>
<td>BR-100</td>
<td>100-300</td>
<td>100-400</td>
<td>400 +</td>
</tr>
<tr>
<td>2</td>
<td>BR-250</td>
<td>250-500</td>
<td>300-600</td>
<td>600 +</td>
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<td>350-700</td>
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<td>900+</td>
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<td>450-800</td>
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<td>1000+</td>
</tr>
<tr>
<td>6</td>
<td>BR-550</td>
<td>500-850</td>
<td>800-1050</td>
<td>1050+</td>
</tr>
<tr>
<td>7</td>
<td>BR-600</td>
<td>550-900</td>
<td>850-1100</td>
<td>1100+</td>
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<td>8</td>
<td>BR-650</td>
<td>600-1000</td>
<td>900-1150</td>
<td>1150+</td>
</tr>
<tr>
<td>9</td>
<td>BR-700</td>
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<td>1200+</td>
</tr>
<tr>
<td>10</td>
<td>BR-800</td>
<td>700-1025</td>
<td>1025-1250</td>
<td>1250+</td>
</tr>
<tr>
<td>11</td>
<td>BR-850</td>
<td>800-1050</td>
<td>1050-1300</td>
<td>1300+</td>
</tr>
<tr>
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<td>BR-850</td>
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<td>1350+</td>
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Appendix H
Common Core State Standards for English and Language Arts / Lexile
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<thead>
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<th>Grade Band</th>
<th>Current Lexile Band</th>
<th>&quot;Stretch&quot; Lexile Band*</th>
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<tr>
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<td>N/A</td>
</tr>
<tr>
<td>2–3</td>
<td>450L–730L</td>
<td>420L–820L</td>
</tr>
<tr>
<td>4–5</td>
<td>640L–850L</td>
<td>740L–1010L</td>
</tr>
<tr>
<td>6–8</td>
<td>860L–1010L</td>
<td>925L–1185L</td>
</tr>
<tr>
<td>9–10</td>
<td>960L–1120L</td>
<td>1050L–1335L</td>
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<tr>
<td>11–CCR</td>
<td>1070L–1220L</td>
<td>1185L–1385L</td>
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Appendix I
1st ERAS Student Results
How do you feel when you read a book in school during free time?

How do you feel about spending free time reading?

How do you feel about reading instead of hanging out with friends?

How do you feel about learning from a book?

How do you feel about stories you read in reading class?

How do you feel about taking a reading test?
Appendix J
2\textsuperscript{nd} ERAS Student Results
How do you feel when you read a book in school during free time?

How do you feel about reading textbook pages and worksheets?

How do you feel about reading in school?

How do you feel about stories you read in reading class?

How do you feel about a dictionary?

Not all the books I read have tests so it makes me very upset trying to get all the words I need when I just wanna read books but have to worry about tests.

Total for First Half

Total for Second Half
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<th>I loved doing the reading in class! It really made me enjoy reading more!! I loved being Mrs. Welles Guine Pigs :)</th>
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Appendix K
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