Reading Attitude of Struggling Elementary Students

Sau Hou Chang
Indiana University Southeast
Published on
Fall 2010
Indiana Reading Journal, 43, 11-18.
Abstract

The present study investigated the reading attitude of struggling elementary students at risk for reading failure. Twenty-nine first-grade and 32 second-grade struggling readers were given the Elementary Reading Attitude Survey (McKenna & Kear, 1990). First-grade struggling readers favored more academic reading activities while second-grade struggling readers favored more recreational reading activities. The percentile ranks of reading attitude of first-grade struggling readers were below the 50th percentile, and those of second-grade struggling readers were slightly above the 50th percentile. No differences were found in reading attitude between first-grade and second-grade struggling readers. The paper also discussed limitations of the study, suggested future research, and recommended implication for practice.

Keywords: reading attitude, struggling elementary readers
Reading Attitude of Struggling Elementary Students

Federal initiatives such as the America Reads Challenge Act (1997) and the No Child Left Behind Act (2001) proposed that all students should read independently by the end of third grade. With 33% of fourth graders read below the basic level for their grade, and 67% of fourth graders read below the proficient level for their grade (Lee, Grigg, & Donahue, 2007), these federal initiatives pose great challenges to educators.

One way to deal with such great challenges is to give individual reading intervention to those students who are behind their grade-level reading. For example, Allor and McCathren (2004) developed a one-to-one reading tutoring intervention which included a game to teach phonemic awareness and letter-sound correspondence, structured word-study activities, reading of leveled books, and simple comprehension strategies. Hedrick (1999) designed a one-to-one reading tutoring which included rereading familiar material, reading new material, writing about the new material, and working with words (word identification or vocabulary activities). Moore-Hart and Karabenick (2000) developed a tutoring program which focused on reading and comprehending literature, conducting word building strategies to reinforce knowledge of letter-sound relationships or word recognition activities to reinforce fluency, and engaging in reading/writing activities (i.e., choral readings, readers’ theater, or journal writing). Vadas, Jenkins, Antil, Wayne, and O’Connor (1997) developed a one-to-one
phonologically based tutoring program which included letter sounds and
beginning sound instruction, rhyming, auditory blending, segmenting, spelling
and analogy use, story reading and writing.

These individual reading interventions are skills-based. In fact, from a
meta-analysis of 29 individual reading interventions for elementary students at
risk for reading failure, Elbaum, Vaughn, Hughes and Moody (2000) found that
the majority of interventions focused on a combination of phonological awareness
and comprehension skills. These interventions may be oriented from the belief
that phonological awareness and comprehension skills are important predictors of
reading ability (Smith, Scott, Roberts, & Locke, 2008). Phonological awareness
refers to sensitivity to the sound units of oral language, including the awareness of
words in sentences, of syllables in words, of the beginning and end parts of
words, and of phonemes (Adams, 1990; Lonigan, Burgess, Anthony, & Barker,
1998; Snow, Burns, & Griffin, 1998). Reading difficulties are associated with
deficits in phonological awareness (Ehri, 1999; Goswami & Bryant, 1990).
Comprehension is the outcome of reading when readers successfully connect
statements and ideas in the text in order to form a coherent mental representation
of the text (Trabasso & van den Brock, 1985). Weak comprehension skills are
associated with difficulties in reading comprehension (Fletcher, Lyon, Barnes,
Stuebing, & Frances, 2002).
Compared to studies of how phonological awareness and comprehension skills affect reading, fewer studies have examined how reading attitude, another predictor of reading ability, affects reading. Cooter and Alexander (1984) defined reading attitude as the feelings about reading that lead to the approach to or avoidance of reading behaviors. Kush, Watkins, and Brookhart (2005) proposed a temporal interaction between reading attitude and reading achievement and suggested that reading achievement and reading attitude were related in middle school, but not in early elementary school. Martinez, Aricak and Jewell (2008) administered the Curriculum-Based Measurement Tasks in reading and the Elementary Reading Attitude Survey (ERAS) to fourth-grade students, and found that both reading ability and reading attitude significantly predicted reading achievement of a state reading test four months later. Such findings supported the temporal interactive effect of prior reading attitude and skill on later reading achievement. Similarly, in an international study comparing the reading performance and habits of fourth graders in 35 countries, participants who reported reading for pleasure outside of school at least once a month had higher reading scores than peers who reported that they did not read for pleasure (Ogle et al., 2003).

Even though reading attitude is another predictor of reading ability, the volume and scope of studies on reading attitude have not matched its importance in reading ability. Most studies on reading attitude focused on gender and grade
differences. Girls had a more positive attitude to reading than boys (e.g., Logan & Johnston, 2009), and girls consistently expressed more positive attitudes toward both recreational and academic reading activities than boys (e.g., Kush & Watkins, 1996; McKenna, Kear, & Ellsworth, 1995). Younger students have more positive attitudes than older students, and attitudes toward reading decline each year as students move through the elementary years, except for readers with high-ability scores (e.g., Cloer & Pearman, 1992; Kush & Watkins, 1996; McKenna, Kear, & Ellsworth, 1995). Other studies used reading attitude as an indicator of the effectiveness of reading instructions. Reading attitude was found to be more positive in individualized reading program than basal reading program (Robertson, 1993), whole language program than basal reading program (Dale & Radell, 1995), literature-based program than skill-oriented program (Friend, 1995), and read-aloud program than no program (Porter, 1995).

To better deal with the challenge of educating students who are behind their grade-level reading, reading attitude should be incorporated into the usual skills-based intervention. In fact, McKenna and Kear (1990) noted that the emphasis of reading interventions on enhanced reading proficiency had often ignored the important role of reading attitudes in the process of becoming literate. Only a few studies were found to incorporate reading attitude to reading interventions. For example, Duran (1994) developed a reading intervention to improve student attitudes toward reading for fun and pleasure. Reading buddies
were used to instill a desire to read through mentoring and modeling. Audio tapes and videos of children literature were compiled to arouse the interest of reading. At the end of the program, there was a significant increase in both recreational and academic reading after the intervention. In addition, Fitzgibbons (1997) did a longitudinal study of the effect of a reading intervention program on student reading attitudes. Participating schools were given grants to purchase new paperback books for libraries and classroom, and to initiate motivational activities to encourage reading. Findings showed that students’ attitudes were favorable about reading in both elementary and middle schools; females had more positive attitudes toward reading, with recreational reading attitudes more positive than academic reading attitudes.

The strategies to improve reading attitudes varied greatly from interventions to interventions. To incorporate reading attitude into the usual skills-based intervention, all these strategies should be able to address the reading attitude of struggling readers. Surprisingly, a few studies have ever examined the reading attitudes of any particular group of students. Worrell, Roth, and Gabelko (2007) administered the Elementary Reading Attitude Survey (ERAS) to academically talented students with the purpose of investigating the reliability and structural validity of ERAS. Fradley (2009) used the ERAS to examine the reading attitudes of third-grade struggling readers with the purpose of determining the success of a six-week summer literacy program.
Since little is known about the reading attitudes of struggling readers per se, the purpose of the present study is to examine the reading attitudes of elementary struggling readers. Specifically, three research questions were asked. First, what were the favorable and unfavorable reading activities of struggling readers? Second, what were the percentile ranks of the reading attitudes of struggling readers? Third, was there a grade level difference in the reading attitude of struggling readers?

Considering the best use of resources, the understanding of reading attitude of struggling elementary students give insights to educators in preparing reading intervention programs. Educators, therefore, are more likely to design a holistic reading program which not only addresses the reading skills but also the reading attitude of struggling readers.

Method

Participants

Twenty-nine first-grade and 32 second-grade struggling readers participated in the present study. The Developmental Reading Assessment (DRA; Beaver, 2003) was administered to all first- and second-graders at an elementary school in Midwest. Those students who scored at the bottom quartile were identified as struggling readers and selected to receive supplemental reading tutoring for one semester in addition to regular classroom instruction on reading.
Instrument

The Elementary Reading Attitude Survey (McKenna & Kear, 1990) provides a quick indication of student attitudes toward reading. It consists of 20 questions written in brief and simply-worded statements about reading. Each question is followed by four pictures of Garfield in four poses to depict different emotional states (happiest, slightly smiling, mildly upset, very upset). The first 10 questions are related to recreational reading and the other 10 questions are related to academic reading.

The norms of the survey were taken from 18,138 students in Grades 1-6. Percentile ranks at each grade for both subscales (recreational and academic reading scores) and the composite score were provided so that individuals’ scores could be compared with the national sample.

The internal consistency was calculated at each grade level for both subscales and for the composite score. These coefficients ranged from .74 to .89. Kazelskis, Thames, Reeves, Flynn, Taylor, Beard and Turnbo (2005) examined the reliability and stability of ERAS scores for the recreational and academic subscales and for the total scale. The alpha coefficients suggested adequate internal consistency across gender, ethnicity, and grade level, with all coefficients exceeding .75. The stability coefficients associated with gender and ethnicity were below .70 level, ranging from .48 to .67.
Procedure

The Elementary Reading Attitude Survey (ERAS) was administered to participants individually or in a group less than three when they were at the tutoring classroom for their first tutoring session. The procedure recommended by McKenna and Kear (1990) was used to administer the survey. Researchers began by telling participants that they wished to find out how they felt about reading, and emphasized that that was not a test and there were no “right” answers. After that, researchers pointed to the first picture of Garfield at the far left of the first question, and discussed with participants the mood Garfield seemed to be in (happiest). Then researchers moved to the next picture and again discussed Garfield’s mood (slightly smiling). In the same way, researchers moved to the third (mildly upset) and fourth pictures (very upset) and talked about Garfield’s moods.

After making sure that participants understood Garfield’s moods, researchers read aloud every question slowly and distinctly. Participants were instructed to think about how they felt and circled the picture of Garfield that was closest to their own feelings. Researchers read every question a second time while participants were thinking. When the survey was finished in about 15 minutes, participants resumed their tutoring sessions.
Data Analysis

To know the favorable and unfavorable reading activities of struggling readers in Table 1, each of the 20 questions of the Elementary Reading Attitude Survey (ERAS) of first-grade and second-grade struggling readers were ranked according to the sum of the total scores of each question. Since the highest four points were given to the happiest Garfield, and the lowest one point was given to the upset Garfield, the range of the sum of the total scores of 29 first-grade struggling readers was between 29 (29 × 1 = 29) and 116 (29 × 4 = 116); and the range of the sum of the total scores of 32 second-grade struggling readers was between 32 (32 × 1 = 32) and 128 (32 × 4 = 128).

The scoring of the Elementary Reading Attitude Survey (ERAS) at Table 2 followed the practice of McKenna and Kear (1990). To score the survey, researchers counted four points for each leftmost (happiest) Garfield circled, three for each slightly smiling Garfield, two for each mildly upset Garfield, and one for each every upset (rightmost) Garfield. Three scores for each participant were obtained. The raw recreational reading score was the sum of the first 10 questions; the raw academic reading score was the sum of the second 10 questions; and the raw composite score was the sum of raw recreational and academic reading scores. The ranges for recreational and academic reading scores are between 10 and 40; and for composite reading score is between 20
and 80. Each of the three raw scores was then converted into percentile ranks by means of Table 1 (McKenna & Kear, 1990).

Results

Favorable and Unfavorable Reading Activities of Struggling Readers

To answer the first research question, Table 1 presents the top five favorable and unfavorable reading activities of first-grade and second-grade struggling readers. The number in parentheses indicated the sum of the total scores of that question. The five most favorable activities for first-grade struggling readers were reading stories in reading class, reading in school, starting a new book, going to a bookstore, and answering questions about what they read. The five most favorable activities for second-grade struggling readers were learning from a book, going to a bookstore, reading different kinds of books, getting a book for a present, and starting a new book.

The five most unfavorable activities for first-grade struggling readers were taking a reading test, reading instead of playing, doing reading workbook pages & worksheets, reading during summer vacation, and reading out loud in class. The five most unfavorable activities for second-grade struggling readers were reading instead of playing, reading during summer vacation, taking a reading test, reading out loud in class, and doing reading workbook pages & worksheets.
Percentile Ranks of the Reading Attitudes of Struggling Readers

Table 2 presents the mean scores, standard deviation, and percentile ranks of the recreational, academic and composite reading scores of first- and second-grade struggling readers. The ranges for recreational and academic reading scores are between 10 and 40; and for composite reading score is between 20 and 80. The mean recreational score was 29.24 \( (SD = 7.98) \) for first-grade struggling readers, and 30.41 \( (SD = 5.73) \) for second-grade struggling readers. The mean academic score was 28.83 \( (SD = 7.28) \) for first-grade struggling readers, and 30.75 \( (SD = 6.54) \) for second-grade struggling readers. The mean composite reading score was 58.07 \( (SD = 13.56) \) for first-grade struggling readers, and 61.16 \( (SD = 11.39) \) for second-grade struggling readers.

To answer the second research question, all these mean scores were converted into percentile ranks by means of Table 1 (McKenna & Kear, 1990). The recreational percentile rank was 39.44 for first-grade struggling readers, and 52.46 for second-grade struggling readers. The academic percentile rank was 43.15 for first-grade struggling readers, and 60.75 for second-grade struggling readers. The composite percentile rank was 42.01 for first-grade struggling readers and 57.48 for second-grade struggling readers.

Grade Level Difference in the Reading Attitude of Struggling Readers

To answer the third research question, a One-Way ANOVA was conducted to see whether there was any grade level difference in the reading attitude of
struggling readers. Independent variable was the grade level (first-grade, second-grade) while dependent variables were the percentile ranks of recreational, academic, and composite reading scores. Unless noted otherwise, a significant level of $p < .05$ was used on all statistical tests in this study.

Even though the percentile ranks of second-grade struggling readers were higher than that of first-grade struggling readers, the differences were not wide enough to reach significance. No differences were found between the percentile ranks of recreational reading attitude of first-grade (39.44) and second-grade struggling readers (52.46), $F(1, 59) = .475, p = .493$. The academic percentile rank of first-grade struggling readers (43.15) was also not significantly different from that of second-grade struggling readers (60.75), $F(1, 59) = 3.039, p = .086$. Again, the composite percentile rank of first-grade struggling readers (42.01) was also not significantly different from that of second-grade struggling readers (57.48), $F(1, 59) = 2.245, p = .139$.

**Discussion**

The present study investigated the reading attitude of struggling elementary students at risk for reading failure. Specifically, three research questions were asked. First, what were the favorable and unfavorable reading activities of struggling readers? Second, what were the percentile ranks of the reading attitudes of struggling readers? Third, was there a grade level difference in the reading attitude of struggling readers?
Favorable and Unfavorable Reading Activities of Struggling Readers

First-grade struggling readers favored more academic reading activities while second-grade struggling readers favored more recreational reading activities. The activities these struggling readers favored were light-hearted activities without any pressure.

Even though these first-grade students were struggled with reading, they had some favorable reading activities in school that second-grade struggling readers did not favor very much. The academic reading activities favored by first-grade struggling readers were the stories they read in reading class, the reading class they had in school, and the questions teachers asked them about what they read. It is encouraging to know that first-grade struggling readers enjoy reading in school, particularly reading stories and answering questions.

On the other hand, second-grade struggling readers had more favorable recreational reading activities than academic reading activities. The recreation reading activities favored by second-grade struggling readers were going to a bookstore, reading different kinds of books, getting a book for a present, and starting a new book. It is also encouraging to know that second-grade struggling readers enjoy reading activities outside of school.

Surprisingly, the unfavorable reading activities for both first-grade and second-grade struggling readers were the same. Taking a reading test, doing reading worksheets, and reading out loud in class may cause such a tremendous
pressure that struggling readers disliked. Reading at leisure time and during
summer vacation may also deprive struggling readers of the pleasure of playing.

**Percentile Ranks of the Reading Attitudes of Struggling Readers**

Comparing to the national sample of 18,138 students in Grades 1-6 from
95 school districts in 38 U.S. states in 1989, the percentile ranks of reading
attitude of first-grade struggling readers were below the 50\(^{th}\) percentile (42.01),
with recreational reading (39.44) even lower than academic reading (43.15). The
percentile ranks of reading attitude of second-grade struggling readers were above
the 50\(^{th}\) percentile (57.48), also with recreational reading (52.46) lower than
academic reading (60.75).

The overall low reading attitude scores was consistent with the low
reading scores of these struggling readers. The struggling readers in the present
study were selected based on their low reading scores, and the subsequent low
reading attitude scores were expected. Martinez, Aricak and Jewell (2008) found
that reading attitude significantly predicted reading achievement.

The low percentile rank for recreational reading further explained the low
reading scores of struggling readers. Ogle et al. (2003) found that participants
who reported reading for pleasure outside of school had higher reading scores
than those who reported no reading for pleasure. In addition, Clark and Rumbold
(2006) summarized that reading for pleasure was positively linked to reading
attainment and writing ability, text comprehension and grammar, breadth of
vocabulary, positive reading attitudes, greater self-confidence as a reader, and pleasure reading in later life.

**Grade Level Difference in the Reading Attitude of Struggling Readers**

No differences were found in reading attitude between first-grade and second-grade struggling readers because the grade level difference may be too small to see changes in reading attitude. Wallbrown, Levine, and Engin (1981) reported no significant differences in reading attitudes between the fifth and sixth graders; and Parker and Paradis (1986) also noted no differences in reading attitudes between the first and second graders. However, Kush and Watkins (1996) found that first graders to fourth graders demonstrated initial academic and recreational reading attitudes similar to the standardization sample but their reading attitudes were much less positive after 3 years. McKenna, Kear, and Ellsworth (1995) also found that recreational and academic reading attitudes began at relatively positive point in first grade and end in relative indifference by sixth grade. It seems that changes in reading attitude may be detected if the grade level differences are wider.

**Limitations of the Study**

There are two limitations of the present study. First, the Developmental Reading Assessment (DRA; Beaver, 2003) used to select struggling readers in the present study was a criterion-referenced test with no normative data. In addition, the DRA was administrated in a one-to-one conference between the classroom
Running head: READING ATTITUDE OF STRUGGLING STUDENTS

teacher and the student. Even though the test-retest reliability statistics of the DRA ranged from .92 to .99, other standardized reading tests administered by a single researcher may be more appropriate to select struggling readers.

Second, the national sample of the Elementary Reading Attitude Survey (ERAS; McKenna & Kear, 1990) used to investigate the reading attitude of struggling readers in the present study was selected 20 years ago. In addition, the questions in the ERAS are closed-ended with two dimensions only, recreational and academic reading attitudes. Even though the internal consistency at each grade level for both subscales ranged from .74 to .89, open-ended questions may be used to supplement the reading attitude of struggling readers.

Suggested Future Research

Since the present study found no difference in the reading attitude between first-grade and second-grade struggling readers but Parker and Paradis (1986) found difference in the reading attitude between first- and fourth graders, future studies should be conducted to see whether changes in reading attitude may be detected between struggling readers when the grade level differences are wider.

To understand more about struggling readers, gender difference is another study to be explored. Since girls had a more positive attitude to reading than boys (e.g., Logan & Johnston, 2009), and girls consistently expressed more positive attitudes toward both recreational and academic reading activities than boys (e.g.,
Kush & Watkins, 1996; McKenna, Kear, & Ellsworth, 1995), it is interesting to see if such gender difference will be found in struggling readers.

**Implications for Practice**

Although the two primary purposes of reading instruction are to increase reading skill and promote reading enjoyment (Sainsbury, 2004), schools spend little time promoting reading as a valuable recreational activity. Investigations about affective factors in reading achievement promise fertile ground for intervention studies aimed at increasing reading achievement and eliminating the reading deficit. To better deal with the challenge of educating students who are behind their grade-level reading, reading attitude should be incorporated into the usual skills-based reading intervention. Not only should the reading intervention focus on academic reading attitude, but it should also pay special attention to recreational reading attitude.

To improve academic reading attitude, the favorable academic reading activities of first- and second-grade struggling readers found in the present study suggests that reading intervention programs should use fiction books but not non-fiction books. However, Farris, Werderich, Nelson and Fuhler (2009) found that fifth-grade male students preferred nonfiction over fiction books. Gill (2009) further reviewed the features of nonfiction picture books and suggested criteria for selecting nonfiction picture books.
Struggling readers enjoy listening to fiction books in reading classes. In fact, Mason (1990) proposed that story book reading activities were related to later reading achievement because the activities enabled children to link their listening and speaking skills to text comprehension. Topping, Samuels, and Paul (2008) found that non-fiction reading was negatively correlated with successful comprehension and reading achievement gain.

To use fiction books, attention has to turn to the factors getting children excited about reading fiction. To investigate what motivated children to read, Edmunds and Bauserman (2006) found that the critical factors were the books’ relations to children’s personal interests; the characteristics of books such as exciting book covers, action-packed plots, and humor; and the opportunity to decide what fiction books children would like to read. Farris, Werderich, Nelson and Fuhler (2009) also summarized the characteristics of books appealing to boys from their observation, email communication and interview with fifth-grade male students. They found that boys liked books that looked good, that were part of a series or by a favorite author, and that were with a character who went through a number of situations or years.

In addition, the unfavorable academic reading activities of struggling readers found in the present study suggests that reading intervention programs should minimize the pressure of testing but maximize the pleasure of reading. Reading assessments usually are used to determine the effectiveness of reading
intervention programs. To minimize the pressure of testing, testing strategies should be taught. For example, practice tests can be used to familiarize struggling readers with the type of questions and the format of testing. Reading intervention programs usually are given during school days. To maximize the pleasure of reading, fun activities should be integrated into reading. For example, students may dress up as the characters of the story or perform the activities described in the story.

To improve recreational reading attitude, the favorable recreational reading activities of struggling readers found in the present study suggests that various incentives should be incorporated into reading intervention programs. For example, issuing bookstore coupons for struggling readers at the end of reading intervention programs are great motivators for their participation. The unfavorable recreational reading activities of struggling readers found in the present study suggests that reading intervention programs should extend from school days to summer break. For example, summer reading programs or reading camps are great ways to encourage reading during the school break.

Conclusions

To deal with the challenge of educating students who are behind their grade-level reading, reading attitude should be incorporated into the usual skills-based intervention. The understanding of the reading attitude of struggling readers
informs such incorporation, and gives insights to educators in preparing reading intervention programs.
References


Table 1

*The Most Favorable and Least Favorable Reading Activities of Struggling Readers by Grade Level (N = 61).*

<table>
<thead>
<tr>
<th></th>
<th>1st Grade (n=29)</th>
<th>2nd Grade (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most favorable</strong></td>
<td>Reading stories in reading class (96).</td>
<td>Learning from a book (115).</td>
</tr>
<tr>
<td></td>
<td>Reading in school (95).</td>
<td>Going to a bookstore (114).</td>
</tr>
<tr>
<td></td>
<td>Starting a new book (95).</td>
<td>Reading different kinds of books (110).</td>
</tr>
<tr>
<td></td>
<td>Going to a bookstore (93).</td>
<td>Getting a book for a present (110).</td>
</tr>
<tr>
<td>Least</td>
<td>Taking a reading test (68).</td>
<td>Reading instead of playing (71).</td>
</tr>
<tr>
<td>favorable</td>
<td>Reading instead of playing (68).</td>
<td>Reading during summer vacation (72).</td>
</tr>
<tr>
<td></td>
<td>Doing reading workbook pages &amp; worksheets (70).</td>
<td>Taking a reading test (81).</td>
</tr>
<tr>
<td></td>
<td>Reading during summer vacation (71).</td>
<td>Reading out loud in class (85).</td>
</tr>
<tr>
<td></td>
<td>Reading out loud in class (74).</td>
<td>Doing reading workbook pages &amp; worksheets (86).</td>
</tr>
</tbody>
</table>

Note: The number in parentheses indicates the sum of the total scores of the statement. The range of the sum of the total scores of 29 first-grade struggling readers was between 29 (29 × 1 = 29) and 116 (29 × 4 = 116), and the range of the sum of the total scores of 32 second-grade struggling readers was between 32 (32 × 1 = 32) and 128 (32 × 4 = 128).
Table 2

Mean, Standard Deviation, and Percentile of the Scores of Elementary Reading Attitude Survey by Grade Level (N = 61).

<table>
<thead>
<tr>
<th></th>
<th>First Grade (n=29)</th>
<th>Second Grade (n=32)</th>
<th>Total (61)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD      (Percentile)</td>
<td>M</td>
</tr>
<tr>
<td>Recreational Reading</td>
<td>29.24; 7.98 (39.44)</td>
<td>30.41; 5.73 (52.46)</td>
<td>29.85; 6.86</td>
</tr>
<tr>
<td>Academic Reading</td>
<td>28.83; 7.28 (43.15)</td>
<td>30.75; 6.54 (60.75)</td>
<td>29.84; 6.91</td>
</tr>
<tr>
<td>Composite Reading</td>
<td>58.07; 13.56 (42.01)</td>
<td>61.16; 11.39 (57.48)</td>
<td>59.69; 12.46</td>
</tr>
</tbody>
</table>

Note. The ranges for recreational and academic reading scores are between 10 and 40; and for composite reading score is between 20 and 80.