English Text Readability and Reading Comprehension Performance of Grade 11 Senior High School Students

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ABSTRACT: The study explored the significance of English text readability and reading comprehension proficiency of grade 11 senior high school students. English teachers validated the 45-item reading comprehension test and the reading comprehension intervention materials. Fifteen subjects of the study (who got the lowest pretest score) were selected from the class who got the lowest mean score in the pretest. It made use of the quasi experimental method where the subjects undergone reading comprehension lessons with English texts of varied readability level (high, fair, and low). Pretest and posttest scores are compared. Results indicated that there is a considerable increase in the mean score in the posttest (13.13) as compared to the pretest mean score (10.53). Further, there is significant difference between the pretest and posttest scores (p < 0.05) and that English test readability has substantial effect on reading comprehension.

KEYWORDS: readability, reading comprehension, senior high school, English text, students

INTRODUCTION
Reading is most likely the most important skill for second language (L2) or foreign language (FL) students in academic environments as recognized by Grabe in Ediger (2006). On the same line, reading requires that the reader interacts with the printed texts, which are symbols that convey meaning. The way a reader interprets the symbols is influenced by the reader’s past experiences, language background and cultural framework, and purpose of reading (Hudelson, 1994), as referred to by Ediger (2006). Learners who are effective in reading are able to: 1) connect what they already know about a subject to what they are reading, 2) make predictions about what they will learn from the reading, 3) ask questions about what they do not understand, 4) identify important ideas from the reading and summarize those ideas, 5) use strategies when encountering text they do not understand, and 6) process the information they read in an organized fashion (Beers and Howell, 2003). Both authors have also identified factors that impinge on the reading process. These aspects are: 1) the learner’s ability, attitudes, and perceptions about reading; 2) the classroom environment’s comfort, order, and safety; and 3) research-based classroom instruction. With regard to the first factor, students bring with them preconceptions about reading. Lack of confidence to read and comprehend text may lead to balking from the reading selection. Beers and Howell has imparted that this unwillingness is a self-fulfilling prophecy that underpins a “can’t do” attitude. As encouragement and positive support is given, students establish positive attitudes and perceptions about reading. When they gain new reading skills and adopt strategies and devices they can employ to their reading, they will become more self-assured in their capacities. The third factor involves the implementation of research based instruction praxes to aid students grasp what they read. As teachers or reading facilitators provide students acquisition of essential skills, they become independent strategic readers. Meanwhile, components of the reading process include the reading task and its purpose, features of the text, and processing strategies for reading and understanding the text (Beers & Howell, 2003).

In addition, text attributes are a function of the writer’s style. These features provide clues to how a reader approximates the reading task. Beers and Howell (2003) have concurred that selecting reading assignments appropriate to the students’ age and ability will raise their encouraging attitudes about the reading activity, warrant their comfort with the reading, and help them assimilate meaning from the text. Moreover, Billmeyer and Barton (1998) have contended that text features do not only make printed materials unique, but also substantially have effect on comprehension. Both mentioned that reader aids (pictorial, typography, graphic and structural representations), vocabulary (terms used by the author to relate ideas and notions), and text structure (organizational pattern the author uses to express his thoughts) are specific text features. One of a selection’s text
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features is its readability. Microsoft Encarta (2008) has defined readability as the measure of the ease with which a passage or text may be read. In his unpublished dissertation, Rabago (2016) has recommended an effects study if grade level readability is correlated to grade level reading comprehension. Similarly, he suggested the formulation and validation of a readability assessment tool to measure what level do Filipino readers truly belong with regards to readability score.

Brooks (2002), author of the book *The Easy Step by Step Guide: Writing Newsletters and Articles*, advised that it is basic in any good communication to have a readable article. This is living up to the audience’s expectations—that is, communicating well. Materials, therefore, employed for reading tasks should cater to the students’ grade level readability to facilitate learning, and develop attitude and comfort for any reading task, as they obtain the necessary tools and strategies to employ in reading.

American researcher Jeane S. Hall (1983) posited that reading in English progresses through six idealistic stages with ages specific to educational experience in the US (McArthur, 1992). Stage 3, of these stages, involves reading for learning (between 9 and 14, roughly the age bracket where grade 7 and grade 8 learners belong). Reading is no longer a culmination by itself, but turns into an instrument by which knowledge and experience can be acquired. Sample material for this stage is (as culled by McArthur):

Early in the history of the world, men found that they could not communicate well by using only sign language. In some way that cannot be traced with any certainty, they devised spoken language.

This sample reading material has a Flesch Reading Ease of 63.8 and Flesch-Kincaid Grade Level of 9.3. Stage 4, in addition, is the stage of multiplicity and complexity (from 14 to 17, approximate age for grades 9 to 11). Students, at this stage, are reading more and more complex materials, both narrative and expository and vary in viewpoint. Such items can be technical, nontechnical, literary, and nonliterary. Sample reading text for this stage is:

No matter what phenomena he is interested in, the scientist employs two main tools—theory and empirical research. Theory employs reason, language, and logic to suggest possible, and predict probable relationships among various data gathered from the concrete world of experience.

The given material has a Flesch Reading Ease of 21.3 and Flesch-Kincaid Grade Level of 17.2, which is obviously beyond the grade level of students at this stage. Increase in the level of the reading materials is evident as one progresses in grade level or age. A struggling reader may find the second example more difficult to comprehend due to the feature of the text itself.

One text feature that is neglected, if not overlooked, is readability. Hallur (2015), a fulltime blogger, commented that there is a powerful connection between readability and blogging and that readability is a most ignored thing (https://seopressor.com/blog/improve-content-readability-and-seo/). In addition, content could be of high quality, but what about audience retention. He posed the question: Can you expect one-hundred percent of your readers to read a blog post that’s written in post-graduate students’ level? This he replied in a negative tone. In his surf of high-ranking blogs, he noticed that they too have high readability. He shared the levels of readability: 75 -100 is basic readability level, 50 – 75 is intermediate level, and anything below 50 is advanced.

A tool used to measure readability is the Flesh Reading Ease Test widely used all over the world. Higher scores indicate a material is easier to read, lower scores indicate passages are more difficult to read. Using the Flesh Reading Ease Score (FRES), *Reader's Digest* has a readability index of 65. *Time* magazine has 52, the average 6th-grade written assignment (age of 12) and readability index of 60-70. The Flesh Reading Ease is also known by other labels, such as the Flesch Readability Formula, and the Flesch Reading Ease Test, or simply the Flesch Formula. The following is the translation of the readability scores:

<table>
<thead>
<tr>
<th>Score</th>
<th>School Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.0 – 90.0</td>
<td>5th grade</td>
<td>Very easy to read. Easily understood by an average 11-year-old student</td>
</tr>
<tr>
<td>90.0 – 80.0</td>
<td>6th grade</td>
<td>Easy to read. Conversational English for consumers</td>
</tr>
<tr>
<td>80.0 – 70.0</td>
<td>7th grade</td>
<td>Fairly easy to read</td>
</tr>
<tr>
<td>70.0 – 60.0</td>
<td>8th grade and 9th grade</td>
<td>Plain English. Easily understood by 13- to 15-year-old students</td>
</tr>
<tr>
<td>60.0 – 50.0</td>
<td>10th to 12th grade</td>
<td>Fairly difficult to read</td>
</tr>
<tr>
<td>50.0 – 30.0</td>
<td>College</td>
<td>Difficult to read</td>
</tr>
<tr>
<td>30.0 – 0.0</td>
<td>College graduate</td>
<td>Very difficult to read. Best understood by university graduates</td>
</tr>
</tbody>
</table>

The demands of academic reading and schoolwork may take its toll on the unequipped grade 11 students who may suffer immensely due to their inadequate reading comprehension. Does readability really matter when reading materials become more
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complicated? Poor attitude toward reading, as observed by Dr. Elena C. Cutiongco in a speech delivered in one national conference by the Reading Association of the Philippines, may exacerbate the already impaired reading comprehension (Bernardo, 2013).

METHODS
The quasi-experimental method was employed in this study. Fifteen grade 11 senior high school students were selected from the class who got the lowest mean score in the pretest. Intervention lessons were implemented, with each part having three lessons and a 15-item summative test. They were organized similarly to the pretest and posttest, from high readability (Part 1) to fair readability (Part 2) and low readability (Part 3). Both reading comprehension tests and reading comprehension materials were validated by English teachers. Pretest and post-test scores underwent one-sample t-test to measure the significant differences at 0.05 level of significance.

RESULTS AND DISCUSSION
It can be gleaned from Table 1 that there is a considerable disparity between the pretest and posttest scores. Most of the posttest raw and mean scores demonstrated substantial increments in raw scores’ span and mean scores.

### Table 1. Pre-test and Post-test Scores of the Participants

<table>
<thead>
<tr>
<th>PN</th>
<th>Part 1</th>
<th>Part 2</th>
<th>Part 3</th>
<th>Total</th>
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</thead>
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<td>Po</td>
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<td>8</td>
<td>6</td>
<td>2</td>
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<td>15</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>( \bar{x} )</td>
<td>2.93</td>
<td>4.60</td>
<td>3.60</td>
<td>3.67</td>
</tr>
</tbody>
</table>

PN – Participant number  
Pr – Pretest  
Po – Posttest  
\( \bar{x} \) – mean

Part 1 pretest scores ranged from 1 to 5 with a mean score of 2.93. In contrast, Part 1 post-test scores manifested an increase with scores spanning from 2 to 9 and mean score of 4.60. The same trend was also reflected in pretest and posttest raw scores and mean scores in Part 2. These suggest that text readability impacts on reading comprehension. It is worth noticing, however, that this tendency deviated in Part 3. Posttest mean score dropped to 3.93 from the 4.07 mean score of the pretest. A study is being recommended, therefore, why such deviance occurred.

Moreover, it was expected that the pretest raw scores should be decremental in nature as the reading selection texts are sequenced from high readability (Part 1) to fair readability (Part 2) and low readability (Part 3) in relation to the participants’ grade level. Results, however, exhibited otherwise as pretest mean scores increased from 2.93 in Part 1 (high readability) to 3.60 in Part 2 (fair readability), and 4.07 in Part 3 (low readability). On the other hand, post-test mean scores posted an erratic array as mean scores fluctuated from 4.60 in Part 1 to 3.67 in Part 2, and 3.93 in Part 3. Similarly, further exploration is being proposed to determine the reasons for the said manifestation. Total raw maximum scores, nevertheless, distinctively demonstrated an increase, from 17 in the pretest to 19 in the posttest. Likewise, this is as well established by the improvement in the mean scores.
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from 10.53 (pretest) to 13.13 (posttest). After the administration of the intervention lessons, it is noteworthy that the mean score increased by 2.6.

PRE-TEST AND POST TEST DIFFERENCE

Table 2. Difference between the Pretest and Posttest Scores

<table>
<thead>
<tr>
<th>Compared Test</th>
<th>Mean Difference</th>
<th>t-value</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>-34.467</td>
<td>-41.093</td>
<td>.000</td>
</tr>
<tr>
<td>Posttest</td>
<td>-31.867</td>
<td>-35.035</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .00 level

Table 2 discloses that, with the mean differences, t-values, and significance of 0.000, there is enough evidence to reject the null hypothesis that there is no significant difference between the pretest and posttest scores. Thus, text readability has a positive impact on the reading comprehension of Grade 11 students. Reading ease then is a factor to be considered with regard to how a reading text is approached to achieve reading comprehension.

Readability, hence, has a considerable effect on reading comprehension as Bahrudin (2016) has pinpointed that textbook readability is an aid to reading attainment and sustain their drive for reading (Rohmatillah, 2017). Further, it has been found that textbook readability can enhance reading comprehension, reading pace, seriousness, and to motivation to read by 65 percent (Rohmatillah, 2017; Brysbaert, 2018).

SUMMARY OF FINDINGS

The study sought to establish the connection between English text readability and reading comprehension of grade 11 senior high school students. Increase in posttest mean score significant difference between pretest and posttest mean scores establish that readability substantially affects reading comprehension.

CONCLUSION

Considering the findings of the study, text readability is a factor to be cogitated if reading comprehension competency is to be achieved.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are offered.

1) The study be replicated among grade 11 senior school students to include a larger population
2) Similar study be expanded to incorporate grade 12 senior high school students
3) Consider readability in the assignment of reading tasks or related activities and development of reading intervention materials

ACKNOWLEDGEMENT

English teachers for validating the reading comprehension test and intervention materials; grade 11 senior high school students, particularly the subjects of the study for their cooperation; the school head for technical support; professional colleagues for support prompting and assistance

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