



Research Paper

The Readability Level of the 11th Grade Geography Textbook and Students' Reading Ability Scores Based on Gender and School Type

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Abstract

Aim: The purpose of this study is to evaluate the readability level of 11th grade geography textbook based on students' gender and school type. The Gunning FOG, Flesch and Cloze test indexes were used to examine the difficulty level of the book. The findings of the study revealed that the book is appropriate for an undergraduate course, but it is difficult for 11th grade students. The readability scores of lessons showed that the content of the book is not organized from simple to difficult. The mean score of the 11th grade students was 34% in the cloze test. As a result, the content causes stress and frustration for learners due to its difficulty. The results showed that female students had a higher mean score of reading ability than male students, but this difference was not statistically significant. Also, students' reading score in special public schools was significantly higher than that in conventional public schools. In addition, there was a significant positive correlation between students' reading ability score and geography lesson score.

Keywords: 11th grade geography book, Cloze test, Flesch, Gunning Fog, Readability

Introduction

Curriculum planners consider several standards for developing school textbooks, one of which is text readability. The most important methods used to determine the readability level include the Flesch method, Cloze test, Gunning FOG method, Fry method and Mc Laughlin method. In recent years, many researchers have used these methods to determine the readability level of textbooks in Iran (Ghaderi Moghaddam and Sobhaninejad, 2016; Kondari, 2020; Seraj et al., 2020; Yousefi et al., 2019). The literature review shows that we need more research on the readability and appropriateness of geography textbooks in Iran. Given the lack of such a study on the 11th grade geography book in Iran, the present study aimed to use quantitative content analysis and Gunning Fog, Flesch, and Cloze indexes for this purpose. The researcher aimed to answer the following questions:

- Are the reading texts used in the 11th grade geography book linguistically appropriate for 11th grade students?
- Is the content of the 11th grade geography book organized from simple to difficult?
- What is the mean score of 11th grade students' reading ability?
- Is there a significant difference between 11th grade male and female students in terms of the mean reading ability score?
- Is there a significant difference between conventional public schools and special public schools in terms of students' mean reading ability score?
- Is there a significant relationship between the reading ability scores of the 11th grade students and the geography course score?

Method

Three readability indexes were used for the study: Gunning Fog, Flesch, and Cloze test. The readability of the 11th grade geography book was first determined by Gunning Fog and Flesch readability indexes. The researcher also used the cloze test to assess the reading ability of the students. Student's t-test and correlation were used to analyze the scores of cloze test.

Results

Gunning and Flesch indexes were used to answer the first research question. The mean score of the Gunning and Flesch test was 13.8 and 38.9, respectively, that is, the content of the 11th grade geography book is difficult to read and understand. To answer the second research question, the readability scores of the lessons were compared, and indicated no particular order in the scores of lessons. Overall, although the second half of the book is more difficult than the first half, the book is not organized from simple to difficult. A cloze test was then used to answer the third to the sixth research questions. The mean score of the cloze test was 17 for all students, that is, on average, students answered only 34% of the questions correctly. As a result, the content causes stress and frustration for learners due to its difficulty. The mean reading ability score of female and male students was 17.93 (36%) and 16.1 (32%), respectively. The results of the Student's t-test showed that female students had higher reading ability scores than male students, but this difference was not statistically significant. The mean reading ability score of students in special public schools and conventional public schools was 19.17 (38%) and 15.45 (31%), respectively. Based on Student's t-test, the reading ability score of students in special public schools was significantly higher than that in conventional public schools. The Pearson's correlation coefficient for students' reading ability scores and geography lesson scores was 0.604, which is significant at 99% confidence level. Therefore, there is a significant positive correlation between students' reading ability scores and geography lesson scores.

Discussion and conclusion

The purpose of this study is to evaluate the readability level of the 11th grade geography textbook and compare the reading ability scores of the students by gender and school type. The findings of the study revealed that the content of the book is not appropriate for the 11th grade students in terms of readability and comprehension, and needs to be revised. Comparing the readability scores of lessons shows that the book is not organized from simple to difficult. The results of the cloze test showed: (1) the content of the book causes stress and frustration for learners due to its difficulty; (2) the mean reading ability score of female students was higher than that of male students, but this difference was not statistically significant; (3) the reading ability score of students in special public schools is significantly higher than that in conventional public schools, and (4) there is a significant positive correlation between students' reading ability score and geography lesson score.

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