

Effects of Reading Material Length on EFL Learners' Reading Speed: Analysing Online Reading Time Data

Natsumi Tanaka

Nihon University, 101-8360 Tokyo, Japan

ABSTRACT

Speed-reading activities have been used in English classes in order to improve learners' reading fluency. In speed-reading activities, learners read easy passages quickly, answer simple comprehension questions, and record their reading time. Reading speed increases as they repeat the procedure. To examine the effects of passage length, the previous study compared EFL learners' reading speed for short passages (200 words) with longer passages (300 words), both of which were composed of familiar, high-frequency words. Results showed that learners read the 300-word passages faster than 200-word passages. This finding was unexpected, as a meta-analysis on speed reading indicated that the length of reading materials had no effect on reading speed. In order to re-examine these findings, this study investigates the effects of reading material length on Japanese EFL learners' reading speed. This study used 200-word passages for the short-passage condition, and 400-word passages for the long-passage condition. A total of 37 intermediate-level Japanese university students participated, and reading time data of 26 were analysed. All participants read both shorter and longer passages, and their reading speeds under the two conditions were compared using a paired *t*-test. The results showed that learners read longer passages significantly faster than shorter ones. These findings confirm the effects of passage length on reading speed when texts are easy. Based on these results, the pedagogical implications for speed-reading activities were discussed.

Keywords: EFL reading, material length, online reading time, reading fluency, speed reading

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E-mail address:

Natsumi Tanaka (tanaka.natsumi@nihon-u.ac.jp)

INTRODUCTION

Reading fluency is commonly conceptualised as a construct that includes reading comprehension, reading speed, and reading automaticity. To improve learners' reading fluency, speed-reading activities have been employed. Typically, learners read short, easy passages containing familiar words.

They record their reading time and calculate their reading speed (the number of words that a reader read in a minute; words per minute, wpm).

However, reading speed is not determined by a single factor. Previous research has shown that it is influenced by a range of variables, such as text readability, topic familiarity, readers' level of reading proficiency, and reading purpose (Carver, 1992; Nation & Macalister, 2020). These factors interact in complex ways, making it difficult to attribute differences in reading speed to any one source. Given this complexity, it is essential to examine how specific textual characteristics affect learners' reading speed in order to design and evaluate effective speed-reading materials.

Therefore, the present study focuses on text length as a key variable and investigates how differences in text length influence the reading speed of EFL learners.

RELATED LITERATURE

While the effect of text length on reading comprehension has been extensively examined, its impact on reading speed has received relatively limited attention. Zainurrahman et al. (2024), for example, suggested that reading time may be influenced more by text readability level than by text length per se, even reporting cases in which shorter texts required more time to read than longer ones.

Tanaka (2021), which used 200-word and 300-word passages with comparable readability levels, found that reading speed was faster for the 300-word texts. This finding contrasts with the meta-analysis by Brysbaert (2019), which reported no effect of text length on reading speed based on studies involving both L1 and EFL readers.

To investigate this conflict, this study compared EFL learners' reading speed between the short and long reading passage to examine the effect of reading material length on reading speed. Accordingly, this study addresses the following research question: Does the length of reading passages affect EFL learners' reading speed?

METHODS

Participants

A total of 37 Japanese EFL university students (intermediate proficiency level) participated in this study. Participants were recruited from an English course at a Japanese university, where the study was conducted as part of regular classroom activities. They were informed that their reading data might be used for research purposes, and informed consent was obtained prior to data collection. The reading time data of 11 students were excluded, because they failed to complete all tasks. The remaining data sets of 26 students were used for the analysis.

Materials

The study included a short-passage condition (200 words) and a long-passage condition (400 words). To ensure comparability between conditions, the short passages were created by summarising the original 400-word passages while preserving the main content and maintaining similar readability levels. Five 400-word passages from *New Zealand Speed Readings for ESL Learners 1000 Word List* (Millet, 2017) were chosen, because the texts are specifically designed for ESL learners, with controlled vocabulary frequency and passage length to ensure high readability. For the short-passage condition, two passages were summarised to 200 words by the researcher and subsequently proofread by native English speakers. The readability of passages was almost the same between short and long passages. One of the readability indices, the Flesch–Kincade Grade Level (FKGL), range from 5.76–7.10. The word difficulty level (according to the CEFR) is between A1.3–A2.2 based on the CVLA (CEFR-based Vocabulary Level Analyser; Uchida & Negishi, 2021).

Procedure

After practicing how to read passages online, participants read two short passages (200 words) followed by two long passages (400 words) and answered five comprehension questions using their devices, following the procedure described in Tanaka (2021). The reading time for each passage and the participants' answers to the comprehension questions were recorded.

Analysis

Certain reading time data were excluded from the analysis. Specifically, reading times faster than 300 wpm were excluded, as this suggested participants likely skipped parts of the passage. Additionally, data with less than 40% accuracy (i.e., fewer than two out of five correct answers) on the comprehension questions were also excluded, as participants likely did not understand the passage.

The average reading speed was calculated across the two passages. A paired *t*-test was conducted to compare reading speed (wpm) under the short- and long-passage conditions.

RESULTS AND DISCUSSION

The paired *t*-test for reading speed revealed a significant difference between the two length conditions, $t(25) = -5.38, p < .001$, Cohen's $d = -1.06$. The results indicated that learners read the long passage (400 words) faster than the short passage (200 words), as shown in Table 1. Following Tanaka (2021), which used 300-word passages as the longer condition, faster reading speed was also observed with 400-word passages. This result is partly consistent with Zainurrahman et al. (2024), who reported that reading speed was

more strongly influenced by text readability than by length itself. The present study extends their findings by demonstrating that, when readability is comparable, text length may still affect reading speed.

In a typical passage, sentences become more complex and harder to understand as they get longer. However, the experimental materials were intentionally developed so that the readability was equivalent between two length conditions. Table 1 also shows the number of correct responses to the comprehension questions. While no statistical analysis was performed, comprehension appeared to remain similar across conditions. In the long-passage condition, participants may have skipped over detailed information while maintaining a general understanding of the text.

Table 1
Results of reading speed and number of correct answers (N = 26)

	Reading Speed (wpm)		Number of Correct Answers (5-point scale)	
	M (SD)	95%CI	M (SD)	95%CI
Short	107.45 (36.69)	[92.63, 122.27]	3.61 (1.29)	[3.18, 4.04]
Long	174.31 (64.48)	[148.26, 200.35]	3.66 (1.09)	[3.30, 4.03]

CONCLUSION

The findings of the present study suggest that text length may influence EFL learners’ reading speed when text readability is carefully controlled. Although the result was unexpected in that longer passages were read faster than shorter ones, the present results indicate that length effects may emerge under specific conditions, particularly in EFL contexts.

Pedagogical Implication

When learners use a speed-reading material including passages of various lengths, they should notice that the results that the learners can read longer passages faster does not necessarily mean they improve their own reading speed. Learners should confirm their reading speed achievement using passages of some different types of length.

Limitation

As the presentation order was the same (i.e., short to long-passage conditions) and the comprehension questions were relatively easy, the participants might be demotivated to keep reading longer passages carefully. It should be noted that 400 words may still be considered relatively short as a long-passage condition. Therefore, future research should examine longer passages, as well as texts with more complex logical structures that are less amenable to skimming.

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