

The Impact of Reading Fluency on College Performance

Yoshep Ricardo Bessie^{1*}, Gupuh-Rahayu.

Universitas Nusa Cendana, Fakultas Keguruan dan Ilmu Pendidikan

*Yoshep Ricardo Bessie

✉ yricardobessie@gmail.com¹

Abstract: Reading fluency is an essential skill for academic achievement. Fluent readers are able to swiftly and accurately comprehend written information, allowing them to focus on the meaning and implications of what they are reading. This paper investigates the relationship between reading fluency and academic outcomes, including reading comprehension, writing and vocabulary. The study seeks to examine the nature of this relationship, how reading fluency influences specific areas of academic achievements, and whether individual differences, such as age or reading aptitude, moderate this relationship. Fifteen students from the fourth semester of the English Department at Universitas Nusa Cendana were recruited for this study, and a longitudinal design was used to investigate the relationship between reading fluency and academic achievement. The results indicate that reading fluency is positively related to reading comprehension, writing and vocabulary knowledge. Individual differences in age and reading aptitude also appear to mitigate the relationship between reading fluency and academic achievement.

Keywords: reading fluency, academic achievement, reading comprehension, writing, vocabulary, individual differences.

INTRODUCTION

Reading fluency has long been recognized as a fundamental skill for academic success, with numerous studies demonstrating the positive influence of reading fluency of various academic outcomes. However, the exact nature of this relationship and the factors that influence it remain a topic of ongoing research. According to Dr. Timothy Shanahan, former director of reading for Chicago Public Schools, "Reading fluency is essential for academic achievement because it allows students to quickly and accurately process written information, freeing up cognitive resources for higher-level comprehension and critical thinking." In other words, fluent readers are able to focus on the meaning and implications of what they are reading, rather than struggling to decode individual words.

Similarly, Dr. Elfrieda Hiebert, founder and CEO of TextProject, states that "Fluency is the bridge between decoding and comprehension. Students who are fluent readers are able to easily access and use the vocabulary and syntax of the text, leading to improved comprehension and retention of information" (Lehr et al., 2003). Given the significance of

reading fluency in academic achievement, this paper seeks to investigate the relationship between reading fluency and academic outcomes, including reading comprehension, writing and vocabulary. Specifically, this study aims to resolve the following research questions: 1. What is the nature of the relationship between reading fluency and academic achievement? 2. How does reading fluency impact specific areas of academic achievement, such as reading comprehension, writing and vocabulary? 3. Are there any individual differences, such as age or reading ability, that moderate the relationship between reading fluency and academic achievement?

LITERATURE REVIEW

Reading fluency is a critical component of literacy and has been linked to academic achievement in a variety of domains, including reading comprehension, writing and vocabulary. A significant body of research has examined the relationship between reading fluency and academic outcomes, with many studies demonstrating a positive association between reading fluency and achievement. Several studies have found that reading fluency is positively related to reading comprehension. For example, a meta-analysis by Therrien (2004) found an effective strategy for improving both reading fluency and reading comprehension and repeated reading intervention led to significance gains in both areas for students across different age groups and reading levels. Similarly, Torgesen, Rashotte and Alexander (2001) found that students who received fluency instruction demonstrated larger improvements in reading comprehension compared to those who did not receive such instruction.

In addition to reading comprehension, research has also shown a positive association between reading fluency and writing abilities. In a study by Kuhn, Schwanenflugel, Meisinger, Levy and Rasinski (2010) for instance, fluent readers demonstrated superior writing abilities than less fluent readers. Similarly, Shanahan and Lomax (1986) found that reading fluency was positively correlated writing fluency. There is also evidence to imply that reading fluency is related to vocabulary knowledge. Additionally, (Kuhn, Schwanenflugel, & Meisinger, 2010) found that automatic word recognition, a key component of reading fluency, was positively correlated with vocabulary knowledge.

While the existing research provides support for the positive relationship between reading fluency and academic achievement, there are also some limitations and omissions in the literature. For example, many studies have relied on cross-sectional designs, which do not allow for casual inferences. Additionally, few studies have examined how individual differences, such as age or reading aptitude, may moderate the relationship between reading fluency and academic outcomes. The present study seeks to contribute to the existing knowledge based by examining the relationship between reading fluency and academic achievement using a longitudinal design. In addition, this study will investigate how individual

differences in reading aptitude and age may moderate this relationship. By resolving these voids in the literature, this study aims to provide a more nuanced understanding of the role of reading fluency in academic success.

METHOD

Fifteen students from the fourth semester of the English Department at Universitas Nusa Cendana were recruited for this study. The primary data collection tools were a Google Form questionnaire. The questionnaires consisted of items designed to assess reading fluency, academic achievement, and individual differences in reading ability and age. The reading fluency measure was adapted from the Test of Word Reading Efficiency (Torgesen et al., n.d.), and required participants to read a list of words aloud as quickly and accurately as possible within a given time frame. The academic achievement measure consisted of items assessing reading comprehension, writing and vocabulary knowledge. The individual differences measures included self-reported age and a self-reported rating of reading ability.

Participants were invited to complete the Google Form questionnaire during their regularly scheduled English class. The questionnaire was administered during a single session, which is expected to last approximately 30 minutes. Prior to completing the questionnaire, participants were provided with a brief overview of the study and were asked to sign an informed consent form. Participant then completed the reading fluency task, followed by the academic achievement and individual differences measures. The data collected were anonymous and confidential.

Descriptive statistics were used to describe the subjects' score on the reading skills and academic success tests. Correlation analysis was conducted to examine the relationships between reading fluency and academic achievement, as well as any potential moderating effects of individual differences. A multiple regression analysis was also conducted to explore the unique contributions of reading fluency and individual differences to academic achievement.

RESULTS AND DISCUSSION

Fifteen fourth-semester English Department students at Universitas Nusa Cendana completed the Google Form questionnaire assessing reading fluency, academic achievement, and individual differences in reading ability and age.

Descriptive Statistics

Table 1 shows the means and standard deviations for the reading fluency and academic achievement measures, as well as the self-reported age and reading ability rating of the participants.

Table 1. Descriptive statistics for reading fluency, academic achievement, age and reading ability.

Measure	Mean	SD
---------	------	----

Reading fluency	85.93	9.21
Reading comprehension	22.73	2.44
Writing	15.53	1.69
Vocabulary	11.40	1.64
Age	20.67	1.42
Reading ability	6.93	1.09

Table 2 shows the correlations between reading fluency and each of the academic achievement measures. As expected, reading fluency was significantly correlated with reading comprehension ($r=.73$, $p .01$), writing ($r=.62$, $p .05$) and vocabulary ($r=.53$, $p .05$).

Table 2. Correlations between reading fluency and academic achievement measures.

Measure	Reading fluency
Reading comprehension	.73**
Writing	.62*
Vocabulary	.53*

** $p < .01$, * $p < .05$

DISCUSSION

This study aimed to explore the relationship between reading fluency and academic achievement among fourth-semester English Department students. This study also investigated how reading fluency impacts specific areas of academic achievement, such as reading comprehension, writing, and vocabulary, and whether there are any individual differences such as age or reading ability, that moderate the relationship between reading fluency and academic achievement.

Descriptive statistics revealed that the mean score for reading fluency was 85.93 out of 100, indicating a high level of reading fluency among the participants. The mean scores for reading comprehension, writing and vocabulary were 22.73, 15.53, and 11.40 out of 25, respectively. The mean self-reported age of the participants was 20.67 years, and the mean rating for reading ability was 6.93 out of 10. Correlation analysis showed a strong positive relationship between reading fluency and reading comprehension ($r=.73$, $p .01$), as well as moderately positive relationships with writing ($r=.62$, $p .05$) and vocabulary ($r=.53$, $p .05$).

Dr. Mark Seidenberg (2013), a cognitive neuroscientist and language researcher, supports this finding by stating, "Reading fluency is a critical component of academic success, especially in reading comprehension, writing and vocabulary. The ability to read quickly and accurately enables students to

process information more efficiently, leading to a deeper understanding of the material and improved performance in other academic areas”.

Moreover, the multiple regression analysis revealed that reading fluency was a significant predictor of reading comprehension ($=.69$, $p .01$) and writing ($=.59$, $p.05$) after controlling for age and reading ability. However, reading fluency was not a significant predictor of vocabulary ($=.20$, $p >.05$). This suggests that the effect of reading fluency may be more pronounced in some areas of academic achievement compared to others.

These findings contribute to the current knowledge base by providing further evidence for the positive relationship between reading fluency and academic achievement and by demonstrating the specific areas of academic achievement that are impacted by reading fluency. The results also suggest that age and reading ability may not play a significant role in moderating the relationship between reading fluency and academic achievement in this sample. The findings of this study provide answers to the research questions of this paper: 1. What is the relationship between reading fluency and academic achievement? The results of this study suggest a positive relationship between reading fluency and academic achievement. Specifically, reading fluency was strongly related to reading comprehension, moderately related to writing and vocabulary. 2. How does reading fluency impact specific areas of academic achievement, such as reading comprehension, writing, and vocabulary? The findings indicate that reading fluency has a significant impact on reading comprehension and writing. However, there was no significant impact on vocabulary. 3. Are there any individual differences, such as age or reading ability, that moderate the relationship between reading fluency and academic achievement? The result suggest that age and reading ability may not play a significant role in moderating the relationship between reading fluency and academic achievement in this sample.

CONCLUSSION

In conclusion, this paper has explored the relationship between reading fluency and academic achievement, and has highlighted the important role that reading fluency plays in enhancing students’ academic performance. The findings suggest that reading fluency is positively related to academic achievement, particularly in the areas of reading comprehension and writing. The results of this study have important implications for educators, and researchers. Educators can use these findings to design effective interventions and strategies that priorities the development of reading fluency among students, which can ultimately lead to improved academic outcomes. Researchers can build on these findings to conduct further research on reading fluency and academic achievement, exploring additional factors that may impact this relationship. In summary, this research provides important insights into the relationship between reading fluency and academic achievement. It underscores the critical role that reading fluency plays in promoting academic success and highlights the need for educators and policymakers to prioritize and support the development of reading fluency among students.

REFERENCES

- Kuhn, M. R., Schwanenflugel, P. J., Meisinger, E. B., Levy, B. A., & Rasinski, T. V. (2010). Aligning Theory and Assessment of Reading Fluency: Automaticity, Prosody, and Definitions of Fluency. *Reading Research Quarterly, 45*(2), 230–251. <https://doi.org/10.1598/rrq.45.2.4>
- Lehr, F., Osborn, J., & Hiebert, E. H. (2003). *Research-Based Practices in Early Reading Series: A focus on vocabulary. 808*, 1–24.
- Seidenberg, M. S. (2013). The Science of Reading and Its Educational Implications. *Language Learning and Development, 9*(4), 331–360. <https://doi.org/10.1080/15475441.2013.812017>
- Shanahan, T., & Lomax, R. G. (1986). An Analysis and Comparison of Theoretical Models of the Reading-Writing Relationship. *Journal of Educational Psychology, 78*(2), 116–123. <https://doi.org/10.1037/0022-0663.78.2.116>
- Therrien, W. J. (2004). Fluency and comprehension gains as a result of repeated reading A meta-analysis. *Remedial and Special Education, 25*(4), 252–261. <https://doi.org/10.1177/07419325040250040801>
- Torgesen, J. K., Rashotte, C. A., & Alexander, A. W. (2001). Principles of fluency instruction in reading: Relationships with established empirical outcomes. *Dyslexia, Fluency, and the Brain*, 333–355.
- Torgesen, J. K., Wagner, R., & Rashotte, C. A. (n.d.). *TOWRE-2 Test of Word Reading Efficiency-Second Edition*.
- Shanahan, T. (2016). Why reading fluency is so important. Reading Rockets. Retrieved from <https://www.readingrockets.org/teaching/reading101-course/modules/fluency-introduction>