

# BOOK RECOMMENDED

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# EXECUTIVE SUMMARY

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Reading books is one of the most effective ways to enhance your vocabulary – the linguistic aspect of the left brain and nurture and enrich our imagination for our right brain. Due to these advantages, many teachers encourage students to read to improve their academic and personal development. However, choosing the book suitable for their level of understanding is a hassle: no 'one book suits all'. Hence, I proposed another layer in the book selection for students using neural networks to recommend appropriate based on the readability ease for secondary students (year 9 to 12)

I scrapped 25 most popular books from Project Gutenberg, a free e-book site, converted words into numbers so that the machine would understand words' meaning in different contexts (text vectorization). I also removed the articles and the most common words in the books so that they could be assessed unbiasedly. I chose the neural networks approach as I find it the most efficient way to classify words according to their readability ease, the rating methods from Georgia State University's researchers.

Surprisingly, the most famous book, "Pride and Prejudice" by Jane Austen, was classified as one of the most difficult to read; in contrast, "The Iliad" by Homer, with only a third of downloads compared to the former, was the easiest to read. Based on their readability score, I would advise teachers to encourage year 9 students to 'The Iliad'; less popular books such as 'A tale of two cities' and 'Dracula' for year 10; books with at least 18000 downloads such as 'The Scarlet Letter' and 'Frankenstein' for year 11 and 12 and books with less than 16000 downloads for year 13, except for the classic 'Pride and Prejudice' and 'The Prince'.