

FOG INDEX

Introduction

“Readability formulas” are methods used to find out if documents are written at the right reading level for their targeted audience. Gunner’s Fog Index is one of the most famous. The Fog Index measures the level of reading difficulty of any document. It assumes that the bigger the words you use and the more complex your sentences, the more difficult your document will be to read. The Fog Index level translates into the number of years of education a reader needs to read the material easily. The “ideal” score is 7 or 8; anything above 12 is too hard for most people to read. The Fog Index does not determine directly if the writing is too basic or too advanced for a particular audience. It does help you decide whether a document is likely to be hard to understand – and might benefit from editing using “plain English” or “plain language.”

Using the Fog Index

1. Select a short document or passage and count the **number of words** (usually around 100 words). For a lengthy document, select several different passages and average the Fog Index. For example:

Conducting a needs assessment in an organized manner means assigning responsibility for planning, implementing, and monitoring the process. A project area may choose a variety of different approaches to conducting the needs assessment. Many project areas have found that a well-run needs assessment committee is essential to ensuring an effective process. If a planning group does decide to establish a needs assessment committee, the process requires extensive communication and cooperation among the committee, health department, and where applicable, consultants. One key to a good working relationship is an understanding of each party’s roles and responsibilities.

- Number of words = 96
2. Count the **number of sentences** within the passage.
 - Number of sentences = 5
 3. Count the **number of big words** (3 or more syllables). Exclude words in which “es” or “ed” form the third and final syllable, hyphenated words like “state-of-the-art”, and compound words like “newspaper.”
 - Number of “big words” = 26

4. Calculate the **average sentence length** by dividing the number of words by the number of sentences.

- Average sentence length = $96/5 = 19.2$ words

5. Calculate the **percentage of big words** by dividing the number of big words by the number of words, and multiplying by 100.

- Percentage of big words = $(26/96) * 100 = 27.1\%$

6. Add the average sentence length to the percentage of big words and multiply that result by 0.4; that's the Fog Index score.

- Fog Index = $(19.2 + 27.1) * 0.4 = 18.5$

The example passage requires an 18th grade, or graduate school, level of reading ability.

Note that the word *assessment* appears in the sample text four times. Using technical terms or jargon tends to increase Fog Index scores. If these are words that the audience would be familiar with, you don't need to count them as big words. In that case, let's redo the example and not count *assessment* as a big word:

- Number of words = 96
- Number of sentences = 5
- Number of big words = 22
- Average sentence length = $96/5 = 19.2$
- Percentage of big words = $(22/96) * 100 = 22.9$
- Fog Index = $(19.2 + 22.9) * 0.4 = 16.4$

This means that the passage requires an education level of 16.4 years, which means the reader needs to have a college degree.