

SMOG Readability

Simple Measure of Gobbledygook

Using the SMOG Calculator: The easiest way to establish the readability level of a text is to use the SMOG calculator developed by Harry McLaughlin Ph.D Click on the link below to access the calculator, which was adapted from: National Literacy Trust 2008. Readability-How to Test How Easy a Text is to Read. London, England.

There is an alternative method you can use to determine the reading level of your written materials. This method is especially useful when you are revising existing patient/family education materials and may not have access to the original Microsoft Word document. This document was adapted from: University of Wisconsin Hospital and Clinics. (1996). Developing health facts for you: An author's guide. Madison, WI: Author.

Using SMOG

1. Count 10 consecutive sentences near the beginning, middle, and end of your material (30 total sentences).
2. Count every word with three or more syllables in the 30 sentences, even if the same word appears more than once.
3. Add the total number of words counted. Use the SMOG conversion table to find the grade level.
4. If your material has fewer than 30 sentences, follow the instructions for "SMOG on Shorter Passages" and use SMOG Conversion Table II.

Word Counting Rules:

- A sentence is any string or words ending in a period, exclamation point or question mark.
- Words with hyphens count as one word.
- Proper nouns are counted.
- Read numbers out loud to decide the number of syllables.
- In long sentences with colons or semicolons followed by a list, count each part of the list with the beginning phrase of the sentence as an individual sentence.
- Count abbreviations as if they were not abbreviated.
- Do not count verbs ending in "ed" or "es" that make the word have a third syllable.

SMOG for Shorter Passages (<30 sentences) Use this formula and SMOG Conversion Table II for material containing less than 30 sentences, but no less than 10 sentences.

1. Count the total number of sentences in the material.
2. Count the number of words with 3 or more syllables.
3. Find the total number of sentences and the corresponding conversion number in SMOG Conversion Table II.
4. Multiply the total number of words with 3 or more syllables by the conversion number. Use this number as the word count to find the correct grade level from Table I.

SMOG Conversion Table I
(for longer materials)

Word Count	Grade Level
0 - 2	4
3 - 6	5
7 - 12	6
13 - 20	7
21 - 30	8
31 - 42	9
43 - 56	10
57 - 72	11
73 - 90	12
91 - 110	13
111 - 132	14
133 - 156	15
157 - 182	16
183 - 210	17
211 - 240	18

SMOG Conversion Table II (for
use with less than 30 sentences)

Number of Sentences	Conversion #
29	1.03
28	1.07
27	1.1
26	1.15
25	1.2
24	1.25
23	1.3
22	1.36
21	1.43
20	1.5
19	1.58
18	1.67
17	1.76
16	1.87
15	2.0
14	2.14
13	2.3
12	2.5
11	2.7
10	3.0

Obtained from: https://library.med.utah.edu/Patient_Ed/workshop/handouts/smog_formula.pdf