

SMOG Overview

All published studies of materials assessments focus on or include a reading level assessment. There are many available tools but each one uses a different formula. Consequently, they cannot be compared and contrasted. It is important to identify a tool that suits you and your group and to use the same tool consistently.

Note that the SMOG is considered to be the most rigorous of the reading assessment tools because it focuses on the length of words and sentences rather than on words alone. Note too that the SMOG formula can be memorized and used in fieldwork – thus, not requiring a table. Keep in mind that this is only one step in the assessment process.

When you use the SMOG, you will first identify 30 sentences in the text and then count the syllables in every word, highlighting those words that have more than two syllables. Count the total multisyllabic words across all 30 sentences. Finally, apply the SMOG formula to obtain a grade level.

SMOG Step-by-step

1. Identify 30 Sentences

For lengthy materials, choose 10 consecutive sentences at the start, 10 in the middle, and 10 towards the end.

- *Tip:* A sentence is defined as a string of words punctuated with a period (.), an exclamation point (!) or a question mark (?).
- *Tip:* Use a highlighter to mark periods and help you count.

2. Count the syllables in all words

- *Tip:* Use your fingers to count out the syllables in the word. Counting this way helps us overcome a natural slurring of syllables in some common words. For example, count out the syllables in *regular* and in *facility*.

3. Highlight every word with more than 2 syllables

- *Tip:* Hyphenated words are considered as one word.
- *Tip:* Numbers should also be considered, and if in numeric form in the text, pronounced to determine if they are polysyllabic.
- *Tip:* Proper nouns, if polysyllabic, should be counted
- *Tip:* Abbreviations should be read as unabbreviated to determine if they are polysyllabic.

4. Count total number of polysyllabic words.

Count each of the words that you highlighted for a total number of polysyllabic words for your 30 sentences

SMOG: Assessing the Reading Level of Prose

5. Next, estimate the square root of the total number of polysyllabic words counted.

- *Tip:* Find the nearest perfect square and take its square root.

6. Finally, add 3 to the square root.

**This number gives the SMOG score/reading grade level
assigned to the text.**

If the document you are assessing has fewer than 30 sentences, do the following:

- Count the number of sentences in the text.
- Highlight all words with more than 2 syllables.
- As in step 4: Count your total number of polysyllabic words for your document.
- Find the average number of polysyllabic words per sentence by dividing the total number of polysyllabic words by the total number of sentences in your document.
- Determine how many sentences short of 30 you have.
- Multiply the average number of polysyllabic words per sentence by the number of sentences short of 30.
- Add this number to your total number of polysyllabic words.
- Estimate the square root.
- Add 3 to find the reading grade level.

A few added notes for your consideration:

- Most high school graduates read below grade level -- on average at a grade 8 reading level.
- No attention is paid to jargon. Some jargon looks relatively simple such as: 'empty stomach' as in "take this medicine on an empty stomach." Yet, this is not clear to most people.
- There are many other elements of a text that support or hinder reading.
- Consider what you can learn about writing from this exercise:
 - Avoid complex words
 - Avoid long and complex sentences