

## How ETR Determines Readability

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ETR does a readability check on materials during the copyedit phase, and a final check on the final galleys before going to press. We use 4 main formulas in determining readability for materials:

- Flesch Reading Ease and Grade Level
- Fry Formula
- FOG Index
- SMOG Index

Examining results based on all of these formulas provides a way to “check and balance” our assessment of readability. For example, on the same sample of text, the Flesch grade level will tend to be a grade or two lower, FOG a grade higher and SMOG 1–3 grades higher. Flesch reading ease and Fry often correspond. An educated averaging of these results is used to assign a readability level. (*Note: Individual readability formulas are considered accurate plus or minus 1.5.*)

Software used to run the readability checks includes Micro Power and Light programs and the readability function in Microsoft Word.

### Flesch Reading Ease

Computes readability based on the average number of syllables per word and the average number of words per sentence. Scores range from 0 to 100. Standard writing averages approximately 60 to 70. Short, choppy text with little variation in length scores as easy to read with this measure. The reading ease converts to a grade level as follows:

<b>Reading Ease Score</b>	<b>Difficulty</b>	<b>Flesch Grade Level</b>
0–29	Very Difficult	Post Graduate
30–49	Difficult	College
50–59	Fairly Difficult	High School
60–69	Standard	8th to 9th Grade
70–79	Fairly Easy	7th Grade
80–89	Easy	5th to 6th Grade
90–100	Very Easy	4th to 5th Grade

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### **Flesch–Kincaid Index**

Uses the number of syllables per word and words per sentence to calculate a grade level. **This formula tends to score lower than others.**

### **Fry Formula**

Applies from grades 1 to 17. Our readability software shows this formula on a graph.

### **FOG Index**

Takes into account the total number of words, polysyllabic words and sentences. Used primarily in education. One concern is that it fails to discriminate well between simple materials. May be inclined to score difficult materials too high.

### **SMOG Index**

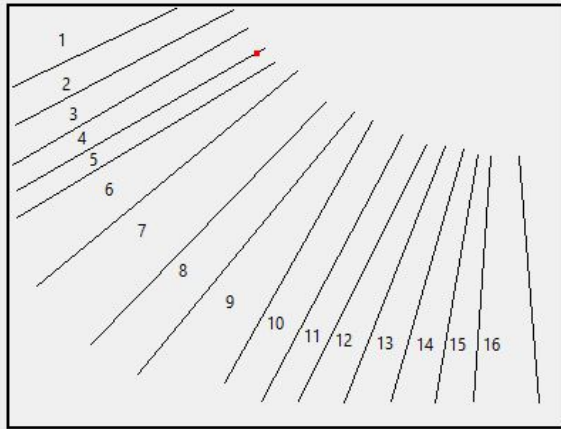
Indicates grade level needed for 90–100% comprehension. Manual method is dependent on accurate counts. Some experts say it is less accurate below a sixth-grade level. The SMOG counts words of 3 syllables with the same weight as words of more than 3 syllables. This is different from the other formulas, which count the actual number of syllables and then give an average number of syllables per 100 words. This may account for why the SMOG tends to score higher than other measures. If a sample only has 1, 2 and 3 syllable words in it, it may be scored with a reading level as high as a sample with 4, 5 and 6 syllable words in it, as anything 3 syllables and over is counted as polysyllabic with this formula.

**Emotional & Mental Health**

Flesch: Reading Ease=80, Grade Level=4.2

FOG: 6.6 SMOG: 7.7

Fry Graph:

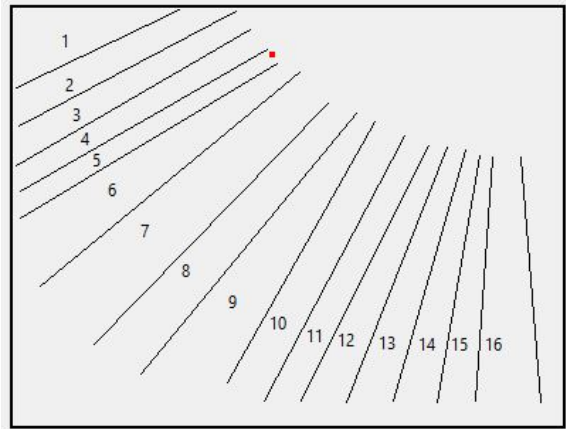


**Nutrition & Physical Activity**

Flesch: Reading Ease=78, Grade Level=4.4

FOG: 6.7 SMOG: 7.8

Fry Graph:

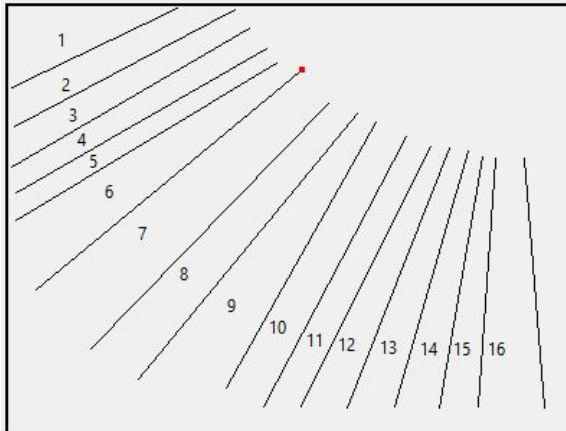


**Abstinence, Puberty & Personal Health**

Flesch: Reading Ease=74, Grade Level=5.3

FOG: 7.7 SMOG: 8.5

Fry Graph:

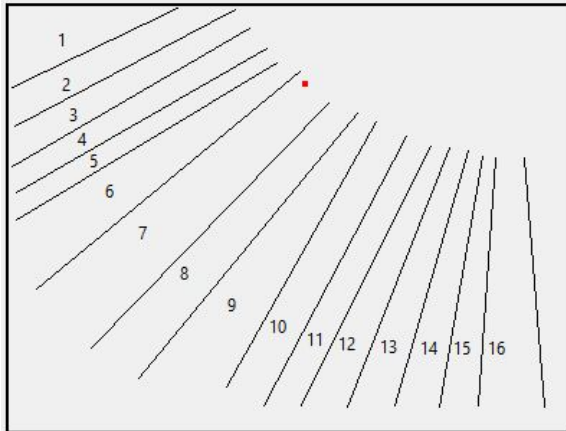


**Tobacco, Alcohol & Other Drug Prevention**

Flesch: Reading Ease=73, Grade Level=5.7

FOG: 8.1 SMOG: 8.9

Fry Graph:

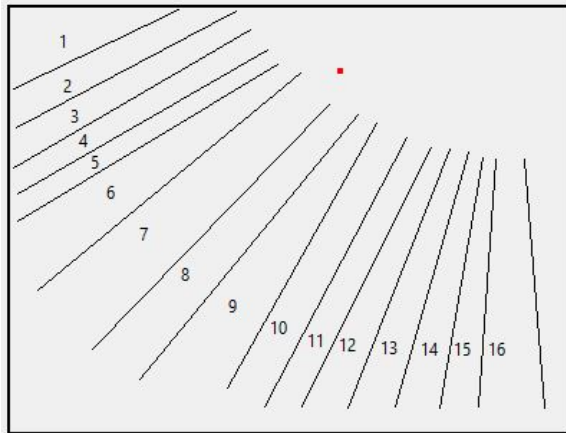


**HIV, STD & Pregnancy Prevention**

Flesch: Reading Ease=73, Grade Level=5.3

FOG: 7.4 SMOG: 8.4

Fry Graph:



**Violence & Injury Prevention**

Flesch: Reading Ease=75 Grade Level=4.8

FOG: 7.2 SMOG: 8.2

Fry Graph:

