Tips on How to Adjust Readability and/or Compute Readability

It helps to understand that readability is impacted by three factors:

Quantitative factors	*Such as number of words in sentences and number of syllables in words*
Qualitative factors	*Such as sentence structures, using words with multiple meanings, levels of meaning or purpose, background knowledge required for comprehension, and language conventions*
Reader and task considerations	*Such as knowledge or experience of the reader, and purpose and of the text*

First Steps Technology computes readability using primarily quantitative formulas. Therefore, the following tips should help you adjust readability for IRB application documents:

- Reduce length of sentences.

- Simplify sentence structure.

- Reduce use of long words.

- For complex terminology, consider when a substitute word works.

For more detailed ideas, use the PROSE strategy below.
CAUTION! *Sometimes you should NOT substitute for scientific or legal words! This is particularly important when addressing confidentiality and secure storage of data.*

Example
Original text:
Your participation in this research is confidential. The data will be stored and secured at Messiah College in a password protected computer and file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. (Flesch-Kincaid readability grade level 12.2)

Edited text:
Your participation in this research is private. We will store your answers in a computer protected with a password at Messiah College. We will not use your name in papers or presentations.   (Flesch-Kincaid readability grade level 7.0)

In this example, the word "private" with two syllables was substituted for "confidential" with four syllables. The original second sentence is passive and the edited second sentence uses an active verb. The original third sentence starts with a prepositional phrase, while the edited third sentence simplified structure while also shortening length. Resulting text preserved essential meaning, resulting in acceptable readability.

Consider Qualitative and Reader/Task factors of readability.
When wording forms for children, English language learners, individuals with disabilities or even individuals of dialects other than your own, consider additional edits that may help participants better understand your communication. In many cases, these edits do also help with computed readability.

- Limit words with multiple meanings. For example, the word "pick" has over 30 possible meanings. Substitute "choose" or another word that is specific to your meaning.

- Consider background knowledge. For example, a common term in education and psychology is "self-efficacy". Though losing some degree of meaning, for audiences unfamiliar with academic language, consider substituting the more common term "confidence".

- Consider levels of meaning or purposes. For example, simple words may have complex layered meaning in engineering or physics. In other instances, it is imperative to retain a sentence with scientific, legal, or academic terminology. In those cases, consider adding wording such as "which means" or "In other words".

- Avoid phrases that may be connected to culture or dialect. If you are not aware of your own dialect or cultural norms, ask someone from a different geographic region or culture to read your passage. If it sounds "funny" to that reader, consider rewording.

- For more detailed ideas, use the PROSE strategy below.

Figure 1. PROSE Checklist for improving school-to-home written communication.

P	**Print**
	☐ All one font
	☐ Consistent font size throughout
	☐ Running text is medium font (e.g. 12-point font).
	☐ Sentence case print rather than all capitals or italics
	☐ Selective use of highlighting or bold print to draw attention rather than to decorate
R	**Readability**
	☐ Reading level is ideally fifth grade but no higher than eighth grade.
	☐ Multisyllabic words are be limited so most words are one or two syllables
	☐ Sentences are 10-15 words ideally but no more than 25 words
	☐ Longer sentences are broken into several shorter sentences
	☐ Prepositional phrases are limited to shorten sentence length
O	**Organization**
	☐ Predictable left-to-right, top-to-bottom layout
	☐ Headings guide the reader and are set apart from running text
	☐ Diagrams (lists, tables, charts, and graphs) are set apart from the running text
	☐ Diagrams (lists, tables, charts, and graphs) are simple (no more than 15 labels and 75 items)
	☐ Diagrams (lists, tables, charts, and graphs) are labeled and self-explanatory
S	**Structure**
	☐ Ideally one page or broken into sections
	☐ Page numbers are provided for documents longer than one page
	☐ Balance white space so text that is not overly dense
	☐ Images and figures supplement the content rather than serve as decoration
E	**Ease**
	☐ Written in the active voice (passive sentences close to zero percent).
	☐ Pronouns replaced by the original nouns so sentences have no more than one pronoun
	☐ Terms written out rather than using acronyms unless the acronym is widely known to parents outside the education field (e.g. name of the school)
	☐ Real world examples are included when possible

If you need to create a recruitment letter or communication to individuals, this PROSE strategy may also be helpful. This PROSE strategy comes from the Nagro article (citation below).

How to compute readability:

For consistency in computing readability across formats, please use the on-line readability program at http://www.readabilityformulas.com/   Click on the Flesch-Kincaid Grade Level and Then click on the Flesch Grade Calculator. Copy and Paste your text into the text box. Then click calculate.

Yes, there are other options as well, be the IRB committee will be using this site to check readability of your documents (such as consent, and assent forms).

Nagro, S.A. (2015). PROSE checklist: Strategies for improving school-to-home written communication. *Teaching Exceptional Children, 47*(5), 260.