

Easy Read is a tool for instructors working with low literacy students who want the ability to simplify any text to the reading level of their students. It's a web application that allows the user to store, edit and view passages. The system has two types of users, instructors and students. Students view passages and answer questions on them. Instructors add passages and use the system to generate suggestions for simplifying the language to the target grade level. The system generated suggestions can be taken or ignored and the passage can be saved again in modified form. Easy Read also provides options to tag passages by their category, source, or other identifiers to facilitate searching through a large number of stored passages. At its core, the system is based around dropping in text, giving its source and identifying information and letting the system identify problem areas. The passages are presented in searchable lists and the system keeps track of your answers on questions for each of those passages. Student's answers are only viewable by themselves and their instructor and each instructor will have their own set of passages their students can access.

Intellectual Merit

The difficulty of this project lays in generating appropriate suggestions and making sure that those suggestions lead to sentences that are grammatically correct English sentences. This issue stems from the complexity of determining, with any degree of certainty, a difficulty score for a word algorithmically. Easy Read will combine several different existing approaches to provide passage simplification suggestions, an existing database of 50,000 words and their average age of acquisition (determined experimentally), the commonality of a word within a large selection of well known English language texts and the existence of synonyms or root words for which the system has age of acquisition data on. The overall challenge is to combine that information into a reasonable metric for passage difficulty in a way that the system can generate suggestions without a delay that hampers the user experience.

Broader Impact

One of the differences between this project and other English language literacy tools is that this could be used in the adult learning space as a way of bringing in real world literature – newspaper articles, research papers, etc. – down to a reading level appropriate for grade school readers. The students would get content appropriate for them instead of content appropriate for their children. Even in the traditional school setting, instructors would no longer have to limit their courses to books that are designed for children or young adult readers, but could bring in snippets from what their students have to look forward to in the real world. Teachers can bring in material that matters and students can learn without feeling like they're being talked down to. Existing standards, like the Lexile measure, all rely on proprietary methods for determining text difficulty that can in no way be put to use on a minute to minute basis inside the classroom and are certainly not as useful as our simple copy-paste interface for simplifying any text that a person could possibly encounter and want to share. The passage simplification suggestions, as well as the ability to add comprehension questions, could make Easy Read a game changer for educators working in all spaces.

