Developing a text editor to help writers with academic English vocabulary

What this research was about and why it is important

Many of today's text editors can help people with spelling, grammar and synonyms. Some can even suggest the next word in a sentence. However, prompts like these can sometimes be disruptive. In the ColloCaid project, we are developing a text editor that helps people write more fluently without distracting them from what they are trying to say.
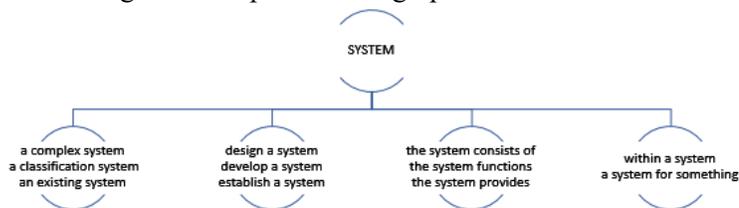
Our focus is on the vocabulary of essays, theses and research articles in English. More specifically, we assist writers with collocations, i.e., words that go well together. For example, if you are looking for a word to describe how something improves, the ColloCaid editor suggests that you could write that something *significantly improves*, *dramatically improves*, *substantially improves, slightly improves,* and so on. Collocations have been shown to be notoriously difficult for less experienced writers. Without realizing, a less experienced writer may make mistakes or use unsuitable words (for example, *improve a lot* would sound too informal in academic texts). Or people may simply struggle to remember an appropriate word. By enabling writers to find collocations without having to stop writing to look them up, we aim to help them produce more fluent texts while concentrating on getting their ideas across.

What the researchers did

- We researched which words to focus on, what vocabulary suggestions to give, and how to integrate vocabulary enrichment prompts into a text editor in a way that does not hinder writing.
- To find out which words would be the most useful ones for people writing essays, theses and research articles in English, we examined previous research on academic English vocabulary.
- We cross-referenced three well-known academic word lists to select which nouns, verbs and adjectives to focus on.
- Using lexical computing software, we analysed millions of words in texts by expert writers of academic English to find out what collocations were typically used with our selected words.
- We also extracted example sentences by expert writers to help people see how collocations have been used in texts.
- We planned ways in which this information would be presented in the ColloCaid text editor based on previous research on writing and dictionary use.

What the researchers found

- We identified 513 essential nouns, verbs and adjectives present in at least two academic word lists. This included words typically used across academic disciplines like *research*, *system, contribute, suggest, critical, significant,* etc.
- We began to compile a lexicographic database with academic collocations pertaining to these words. For example:

- We enriched the database with authentic examples like *the advantages of designing a system in this way; a poorly designed system; a system designed to…* to help writers understand how to use collocations in texts.
- We established the six principles of the ColloCaid editor: (a) raise awareness of collocations writers may not remember to look up; (b) suggest solutions for collocation problems; (c) provide collocation cues in an intuitive way; (d) ensure cues are unobtrusive; (c) enable writers to retrieve cues as and when needed; (f) enable default settings to be adjusted to individual needs.

Things to consider

- We have raised important questions about the usability of dictionaries, dictionary-like tools and writing assistants.
- The ColloCaid editor aims to enrich writers' vocabulary, but addresses only general academic English.
- The next steps in our research involve developing a prototype and testing it with users.