

Visualisation and graphical techniques to help writers write more idiomatically

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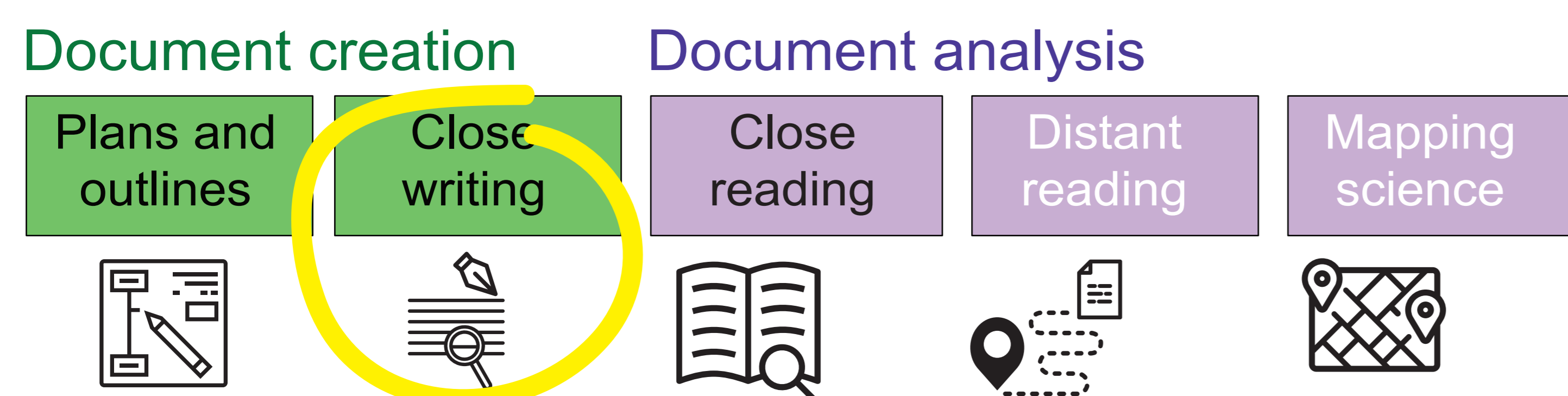
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Introduction

Text visualisation is gaining popularity. Researchers have investigated methods that display the structure of documents, show how books have evolved over many editions, how words are distributed in text. In fact researchers are starting to use visualisation techniques to help users write better computer programs, musicians create music, etc.

There has been much work on “document analysis” but little work on “document creation”. Few researchers have investigated how visualisation techniques could help someone write better text documents.

The goal of the writer is to create texts that are not just grammatically correct, but also idiomatic, and fluent to read. Our specific focus is to investigate collocations, i.e., words that have become conventional to use together (fast food vs. *quick food, collect data vs. *pick data, strong tea vs. *powerful tea, etc.) We are investigating how visualisation can help “close writing”.



Visualisation ideas

1. **Parts of speech**: A sentence "I love to drink strong tea. I do not like coffee, but can drink it when nothing else is available." is shown with colored bars below it representing parts of speech (nouns, verbs, adjectives, etc.).

2. **Alternative sentences**: The same sentence is shown with alternative words or phrases suggested below it, such as "like enjoy" and "very".

3. **In situ editor highlighting**: A screenshot of a text editor showing a paragraph with various words highlighted in different colors (red, blue, green) to indicate different categories or relationships.

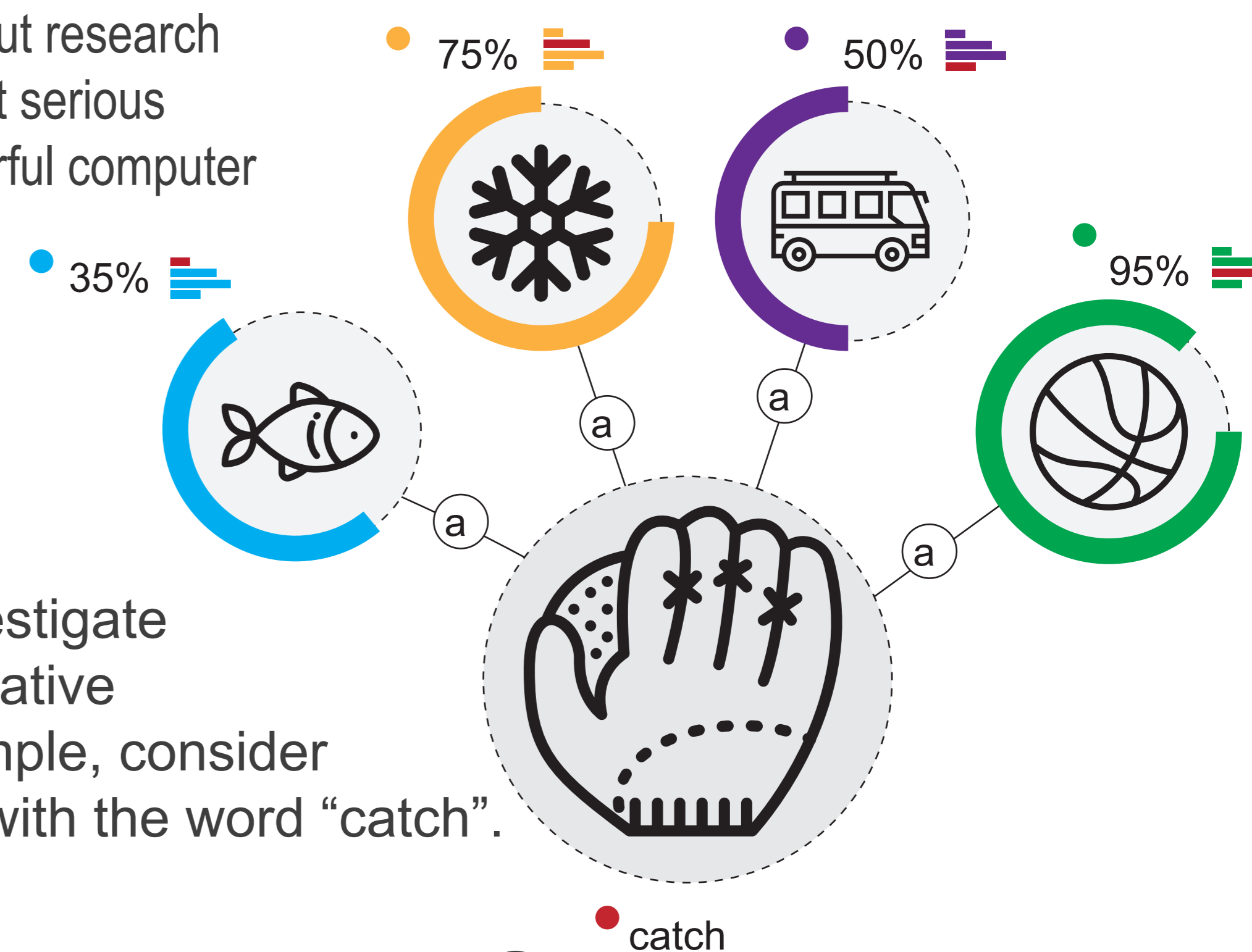
4. **Multiple view highlighting**: A sentence "Healthcare professionals gave advice to men in the treatment groups." is shown with a list of alternative verbs: "provide advice", "offer advice", "dispense advice". Below it, another sentence "the imperial guides offered advice on such problems they are incredibly supportive and offer constructive advice we are always here to offer advice" is shown with "offer" highlighted in red.

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What are collocations?

Collocations are words which are conventionally used together (e.g. collect data, change dramatically, highly significant, etc.). Violating collocation conventions can result in errors (e.g. *depend of something) or awkward, non-idiomatic text (e.g. *a large mistake). This affects not only writing, but also reading, since texts with collocation problems are more difficult to process.

- *a solution of the problem | a solution to the problem
- *make research | carry out research
- *a bit serious | somewhat serious
- *strong computer | powerful computer



This research will investigate ways to visualise alternative collocations. For example, consider different collocations with the word “catch”.

What do you think?

How can collocations be visualised?

How to persuade, not distract?