Scientific research abstracts: Statistical analysis of rhetorical territories and borders

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300 word version

Research abstracts can be classified in numerous ways, such as by publication type (e.g. conference proceedings), length (e.g. extended), content (e.g. informational vs. indicative) and subject area. Combinations of these categories result in a plethora of permutations of abstracts, such as promissory linguistic conference abstracts and informative structured medical journal article abstracts. This paper focuses on the similarities and differences in rhetorical structure in research abstracts of journal articles in ten scientific disciplines. The rhetorical organisation used within abstracts is commonly assumed to consist of four moves: introduction, method, results and discussion. Further divisions, such as purpose, gap and conclusion may be considered as moves or sub-moves. A corpus of 1000 research abstracts was compiled by selecting one hundred abstracts published in top-tier journals from ten different disciplines. The abstracts were manually annotated using the UAM Corpus Tool. Specialist informants were used to verify annotation accuracy. Principle components analysis and cluster analysis were conducted to identify the similarities and differences in rhetorical organisation on three dimensions, namely linearity, recursivity and variety. The results of the analysis were plotted, revealing hitherto unmapped demarcations of borders and creation of territories based on the rhetorical organisation of scientific research abstracts. This provides further evidence for the diversity of move structures within research abstracts, and highlights the need for teachers of writing to resist the urge to generalize from one discipline to another. Teachers of writing are encouraged to create and analyze corpora of target genres in order to provide learners with advice based on research results rather than inductive speculation.

Biodata

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