

Grammar and citation: Using corpus linguistics and social network analysis to identify language patterns in specific discourse communities

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Specificity in English for Specific Purposes (EAP) holds that literacy skills should be specialised for the particular professional and academic communities to which the writer belongs. While numerous studies have investigated the linguistic characteristics of various vocational communities, none have utilised Social Network Analysis techniques (cf. Bastian et al. 2009) to identify communities prior to analysing their language use.

This study aims to identify typical linguistic features of Research Articles (RAs) from a highly specific discourse community within the field of Psychology and asks if more highly cited or eigencentral RAs in this community are more prototypical in their use of these linguistic features than less cited/eigencentral papers (cf. Bihari & Pandia 2015). Utilising Biber's (1992) Multidimensional Analysis approach (on which see also Nini 2014, Thompson et al. 2017, Jin 2018), 452 RA abstracts published between 2005 and 2009 are analysed. The resulting co-occurrence patterns are then compared to citation and eigencentrality scores to see if highly cited/ eigencentral RAs varied less in their use of these linguistic features.

The analyses show that RAs with fewer citations (and lower eigencentrality) tend to vary more in their use of typically used linguistic features than those with more citations (or higher eigencentrality). These findings suggest that Teachers of EAP should consider using more highly cited RAs when selecting texts for use within the classroom.

References

- Biber, D. (1992). The multi-dimensional approach to linguistic analyses of genre variation: An overview of methodology and findings. *Computers and the Humanities*, 26(5-6), 331-345.
- Bihari, A., & Pandia, M. K. (2015, February). Eigenvector centrality and its application in research professionals' relationship network. In *Futuristic Trends on Computational Analysis and Knowledge Management (ABLAZE), 2015 International Conference on* (pp. 510-514). IEEE.
- Bastian, M., Heymann, S., & Jacomy, M. (2009, March). Gephi: an open source software for exploring and manipulating networks. In *Third international AAAI conference on weblogs and social media*.
- Jin, B. (2018). A Multidimensional Analysis of RA Discussion Sections in the Field of Chemical Engineering. *IEEE Transactions on Professional Communication*, 61(3), 242-256.
- Nini, A. (2014). *Multidimensional Analysis Tagger 1.2 - Manual*. Retrieved from: <http://sites.google.com/site/multidimensionaltagger>
- Thompson, P., Hunston, S., Murakami, A., & Vajn, D. (2017). Multi-Dimensional Analysis, text constellations, and interdisciplinary discourse. *International Journal of Corpus Linguistics*, 22(2), 153-186.