

Abstract

This study has focused on English and Spanish complex nominals (CNs) pertaining to wind power terminology. Such multiword terms are very frequent in general and specialized discourse, but they are a specific feature of the latter since knowledge is usually condensed in these structures. Although CNs have been widely studied, there are various aspects that require further research. These include the formation of complex structures in specialized language (e.g. *wind power forecast error*), their modification by parts of speech different from the noun (e.g. *rotating magnetic field*), their presence in or translation into other languages, and their description in linguistic resources.

With a view to analyzing CN behavior in the wind power terminology, our specific objectives were the following: (i) to study CNs and address their characteristics in specialized discourse; (ii) to analyze CNs semantically; (iii) to explore CN formation from a semantic perspective; (iv) to investigate CN translation in English and Spanish; and (v) to design a systematic proposal for CN representation in the terminological knowledge base EcoLexicon. Assuming the premises of Frame-Based Terminology (Faber et al. 2005, 2006; Faber 2012), we compiled an English-Spanish comparable corpus on wind power, which was used for term extraction, semantic analysis, and the identification of terminological correspondences.

Our study revealed that the clusters of concepts in CNs can be accessed and specified by means of semantic categories, roles and relations. These also allowed us to capture regularities in CN formation, which can be further examined by a slot-filling mechanism activated by the CN head. This triggers the so-called *microcontext*. CN translation was also found to be challenging because of the different patterns of term formation and the lack of systematicity regarding the description of CNs in terminographic resources. Along these lines, corpus techniques and guidelines for the specification of equivalences (based on an in-depth contrastive analysis) are essential. As for CN representation, it should encompass the different characteristics of these multiword terms (i.e. their morphosyntactic and semantic formation, their structure, their variants and equivalents, their position in the conceptual system, etc.). This wealth of information, together with a conceptual organization and different access paths to data, can provide a full account of specialized CNs and improve user experience. The practical application of this research is a CN section that has been devised for the phraseological module of EcoLexicon, a terminological knowledge base on the environment.