Abstract:
The Dependency Structure Matrix (DSM) has proved to be a useful tool for system structure elicitation and analysis. However, as with any modelling approach, the insights gained from analysis are limited by the quality and correctness of input information. This paper explores how the quality of data in a DSM can be enhanced by elicitation methods which include comparison of information acquired from different perspectives and levels of abstraction. The approach is based on comparison of dependencies according to their structural importance. It is illustrated through two case studies: creation of a DSM showing the spatial connections between elements in a product, and a DSM capturing information flows in an organisation. We conclude that considering structural criteria can lead to improved data quality in DSM models, although further research is required to fully explore the benefits and limitations of our proposed approach.

Stichworte:
Design Structure Matrix; Knowledge elicitation; Structural similarity