

Enhancing Validity in Qualitative System Dynamics Modeling: Reflections on Triangulation and Member-Checking

Authors: Mahshid Zolfaghari, Biljana Meshkovska

Affiliation: Department of Nutrition, University of Oslo

Email: mahshidz@uio.no

Abstract

Background: Qualitative system dynamics modeling is a widely used approach across various disciplines, making the establishment of its validity an important concern. Triangulation and member checking are often suggested to increase the validity of this approach. However, previous research have seldom reflected how they used these approaches. This discussion is particularly important when there are disagreements between different data sources or when participants disagreed with the presentation of the model, as compared to what they previously stated. In this paper, we aimed to discuss how to make sense of disagreement between data sources and how to present this in the final presentation of the model.

Method: Building on qualitative methods literature, we reflected on different definitions of validation. Additionally, the definitions of triangulation and member checking were revisited as strategies for enhancing validity, and this is contextualized through the presentation of two case studies.

Discussion: We argue that when using triangulation or member checking, disagreements between data sources should not always be seen as a problem that requires removing parts from models. The decision about whether to remove model parts or not should be considered based on the research question and the context of the study. Also, looking at negative cases can be a useful way to providing a more complete picture of the system.

Conclusion: It is important to reflect with more transparency how the triangulation and member checking in qualitative system dynamics modeling are implemented. This reflection should include the criteria and reasoning used to resolve disagreements.
