

COMBINING AGENT-BASED MODELING AND SIMULATION WITH PROBLEM STRUCTURING METHODS

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Abstract: Problem Structuring Methods (PSM) is an approach within Operations Research and Management Sciences that addresses messy or wicked situations. PSM can take credit of techniques and tools that helps the problem structuring team to model the problem, such as modeling and simulation. There are a number of studies in the literature that describes the use of simulation paradigms such as Discrete Event Simulation (DES) and System Dynamics (SD) with PSMs, but the use of Agent-Based Modeling (ABM) on this context has the potential to be further investigated. The goal of this study is to describe how ABM can support PSMs on a multimethodology approach. The results indicate that this type of simulation can contribute on the PSM process with the same importance as other simulation paradigms.