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The Policy Studies Organization

Budding Scholars Conference

Liz Johnson – *Journal on Policy and Complex Systems*

"Complexity Methodologies Plus Traditional Methods in Policy Research"

There are specific mixed-method designs that can accommodate complex research phenomena and build on traditional methods in policy research. According to Creswell and Plano Clark (2011), a multiphase design “benefits from a strong theoretical perspective that provides a guiding framework for thinking about the substantive aspects of the study across multiple phases” (p. 101). The theoretical perspective guiding this research is complexity. A multiphase design is one such design that can accommodate complexity. Capturing simple, complicated, complex, and chaotic systems in research requires modeling linear, non-linear, and dynamic processes and interactions. Furthermore, effective complexity modeling uses the static snapshots from quantitative data and the narrative process perspective from qualitative data in order to transform both into dynamic complexity models of real world phenomena.

Important to consider, mixed-methods research is “practical in the sense that the researcher is free to use all methods possible to address a research problem” and “practical because individuals tend to solve problems using both numbers and words” (Creswell & Plano Clark, 2007, p. 10). A complexity triangulation approach that adds complexity methodologies to quantitative and qualitative research strategies can help address the gaps in modeling interconnected parts that are necessary for better understanding of complex interactions. Qualitative, quantitative, and network analysis approaches are the means to provide data for ABM’s to generate complexity in simulation ABM’s. With ABM simulations, researchers can observe the dynamics of agents, the collective, and the interrelating environment. There are alternate complexity methodologies that can be used but network analysis and ABM simulations are well suited for capturing relationship connections and interaction processes from heterogeneous agents, often explores in policy research.

Biography

Liz Johnson co-founded the *Journal on Policy and Complex Systems* with the Policy Studies Organization and the Complexity Caucus with the American Political Science Association. She serves as the Managing Editor of the journal. She works with the Complex Systems Institute out of the University of North Carolina at Charlotte in the US. She has been conducting research on complex systems for over 5 years in the area of policy, education, sports, agent-based modeling, AI, hybrid engineering, qualitative research, learning, and theory. She teaches courses on complexity at conferences and academic institutions and presents internationally on complexity.