

MISQ Archivist

Making Rigorous Research Relevant: Innovating Statistical Action Research

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Abstract

This paper proposes a new type of action research—statistical action research (AR)—along with our guidelines on how to conduct it and how to evaluate it. Statistical AR provides a new toolkit for our discipline that strengthens the scholarly community by contributing to the recent discussion regarding the collaborative nature of qualitative and quantitative techniques. The major methodological contribution of statistical AR is the introduction and demonstration of the use of statistical hypothesis testing in action research, where this contribution is the first instance of not only statistical AR, but also positivist action research, in the information systems discipline. Our approach to AR addresses, from a positivist perspective, perceived weaknesses of AR. Statistical AR fits comfortably within the framework of canonical AR, with the only difference being that statistical AR takes a positivist perspective rather than an interpretive one. As conducted in this study, statistical AR applies, tests, and advances knowledge validation theory in a knowledge management system (KMS) context. The major practical contribution is illustrating to practitioners how to integrate different methods in action research. A secondary practical contribution consists of turning around an instance of an ineffective KMS, as experienced by an organization, into one that is effective.

Keywords: Action research, statistical action research, research methods, management intervention, positivism, hypothesis testing