

Chapter 32

Research E–Journaling to Enhance Qualitative and Mixed Methods Research: Mitigating Human Limits in Perception, Cognition, and Decision–Making

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ABSTRACT

In qualitative and mixed methods research, the researcher and/or research team are critical elements in the research. Given perceptual, cognitive, and memory limitations, human researchers can often bring these shortcomings to their research and decision-making. To combat such tendencies, researcher reflection, self-awareness, and self-critique are seen as some research controls, as are various standardizations in research to control for bias and to provide for multiple points-of-view. One tool that has long been used for researcher reflection to promote research quality has been the research journal. Research journals are field texts created by the researcher or a research team to make sense of the research work; these are professional forms of narrative analyses or narrative inquiries to enhance researcher self-consciousness of their work, their reasoning, their decision-making, and their conclusions. A contemporaneous electronic version of the qualitative or mixed methods research journal is multimedia-based (including visuals, audio, and video) and may be built in data management software programs, shared cloud-based work sites, or simple folders or digital objects. Guided research e-journals may be structured for the elicitation and capture of specific information to ensure researcher attentiveness, awareness, mindfulness, and thoroughness. Guided electronic journaling (used prior to, during, and post-research) may be used to enhance research quality. This chapter proposes a partial typology of guided structures for research journaling and suggests channels for publishing and distributing research e-journals.

DOI: 10.4018/978-1-4666-7456-1.ch032

INTRODUCTION

Errāre hūmānum est (To err is human).

If quantitative research is about random samples, valid (accurate) instrumentation, statistical significance, reliability (the repeatability of results), and objective or dispassionate analysis, it may be said that qualitative research is about human insights achieved through in-depth and selective case sampling, data triangulation, analysis of human-created artifacts and texts, and deep researcher immersion in the subject matter. Qualitative and mixed methods research, while they are built on a substructure of relativism (vs. positivism) and based on an interpretive lens (based on various inter-subjectivities), involve high standards of rigor and meticulous double-checks to achieve ground truth. There are several dozen research methods that have been described under the qualitative research umbrella. This qualitative approach enables changes in methodological strategies mid-stream during the research based on learning during the work. It involves the study of social realities as described in people's lived experiences often expressed in language (such as in oral histories, surveys, interviews, documents, texts, and other forms). In a mixed methods approach, which uses elements from both quantitative and qualitative research, there are even wider methodological options for customized research, even if there are potentially contrasting (and even conflicting) epistemological approaches. Such methods evolved to address ways of knowing that were not possible through quantitative means and with objectivist and positivist (Newtonian) assumptions of the world. For example, qualitative research is used to elicit opinions and experiences; they are used to understand scenarios; they are used to understand cultures. Qualitative research is often paired with quantitative research for the combined strengths of mixed methods research—to capture statistically grounded data with the color of detail-rich qualitative research.

Defining research quality depends on a variety of factors: the research context, the research methodology, the technologies used, the data types and methods of analysis, and the application of the knowledge (generalizability and transferability). Research should generally be based on evidence (and empirics where possible). It should be focused on the proper unit of analysis: focused out too broadly (at the macro level), over-generalizations may occur without sufficient nuance and detail; focused in too specifically, larger trends may be missed. Research should generally be couched in relevant theory. Research relevance should be bounded—in time, in space, in applicability, and in contexts—to avoid the risks of over-generalization (and misapplication). In virtually all research contexts, people are in a limited or incomplete information context. It should be ethically and legally conducted. It should be original. In qualitative research which involves people, there has to be appropriate professional distance even while engagements with others may be close, in-depth, and relatively long-term (measured in years, for example). Most environments in which research is conducted are dynamic, complex, and changing. The world contains immense irreducible complexity:

Many phenomena have stymied the reductionist program: the seemingly irreducible unpredictability of weather and climate; the intricacies and adaptive nature of living organisms and the diseases that threaten them; the economic, political, and cultural behavior of societies; the growth and effects of modern technology and communications networks; and the nature of intelligence and the prospect for creating it in computers. The antireductionist catch-phrase, 'the whole is more than the sum of its parts,' takes on increasing significance as new sciences such as chaos, systems biology, evolutionary economics, and network theory move beyond reductionism to explain how complex behavior can arise from large collections of simpler components (Mitchell, 2009, p. x).

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