# Mixed Methods Research in LIS Literature: A Scoping Review Emily Crist & Elizabeth Berman, University of Vermont

### Introduction

Distinct from either quantitative or qualitative research paradigms, mixed methods research (MMR) is considered the third methodological movement (Creswell & Plano Clark, 2011).

#### Definition

MMR has a plurality of definitions (Creswell & Plano Clark, 2011; Greene, 2007; Johnson, Onwuegbuzie & Turner, 2007; Small, 2011), but one widely accepted definition comes from the *Journal of Mixed* Methods Research (2016):

Mixed methods research is defined as research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or program of inquiry.

#### Advantage

By combining qualitative and quantitative approaches in MMR, the strengths of one method can off-set the weaknesses of the other. As a result, MMR encourages a pragmatic approach that takes into account multiple worldviews, providing a new way of thinking about an issue or a more holistic understanding of the question being researched.

#### Challenge

Researchers need foundational knowledge in multiple research designs, including qualitative, quantitative, and how the two integrate, as well as an understanding of the intentionality behind using mixed methods to address research questions.





## Objective

The objective of this study is to conduct a preliminary review of Library & Information Science (LIS) literature to establish protocol and inclusion/exclusion criteria for a full scoping review.

The full review will identify:

- How mixed methods research (MMR) is being used in LIS research studies;
- 2. What type of research questions are utilizing mixed methods; and
- What combination of methods are being 3. used.

This study will help academic and research librarians engage with MMR.

### Methods

### Exploratory Scoping Study

Scoping studies aim "to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available, and can be undertaken as standalone projects in their own right, especially where an area is complex or has not been reviewed comprehensively before" (Mays, Roberts & Popay, 2001, p. 194).

This review seeks "to examine the extent," range and nature of research activity" (Arksey & O'Malley, 2005) of mixed methods research articles published by LIS researchers.

STAGES	Stage 1: Identifying the research questions
	Stage 2: Identifying relevant studies
	Stage 3: Study selection
	Stage 4: Charting the data
	<b>Stage 5</b> : Collating, summarizing and reporting the results

**Figure 1.** Stages of a scoping study (Arksey & O'Malley, 2005)







Using the protocol in Figure 2, researchers searched across two LIS article databases, retrieving 202 articles that met the presearch criteria.

Researchers then independently reviewed article titles, abstracts, and keywords based on screening criteria listed in Figure 2. In the case of conflicting or uncertain eligibility, consensus was reached through discussion.

55 articles were eligible for further analysis. The majority of these articles represent academic librarianship (64%, n=35), with top journals including *Evidence Based* Library & Information Practice, Reference Services Review, Journal of Librarianship & Information Science, and New Library World.

### **Preliminary Results**

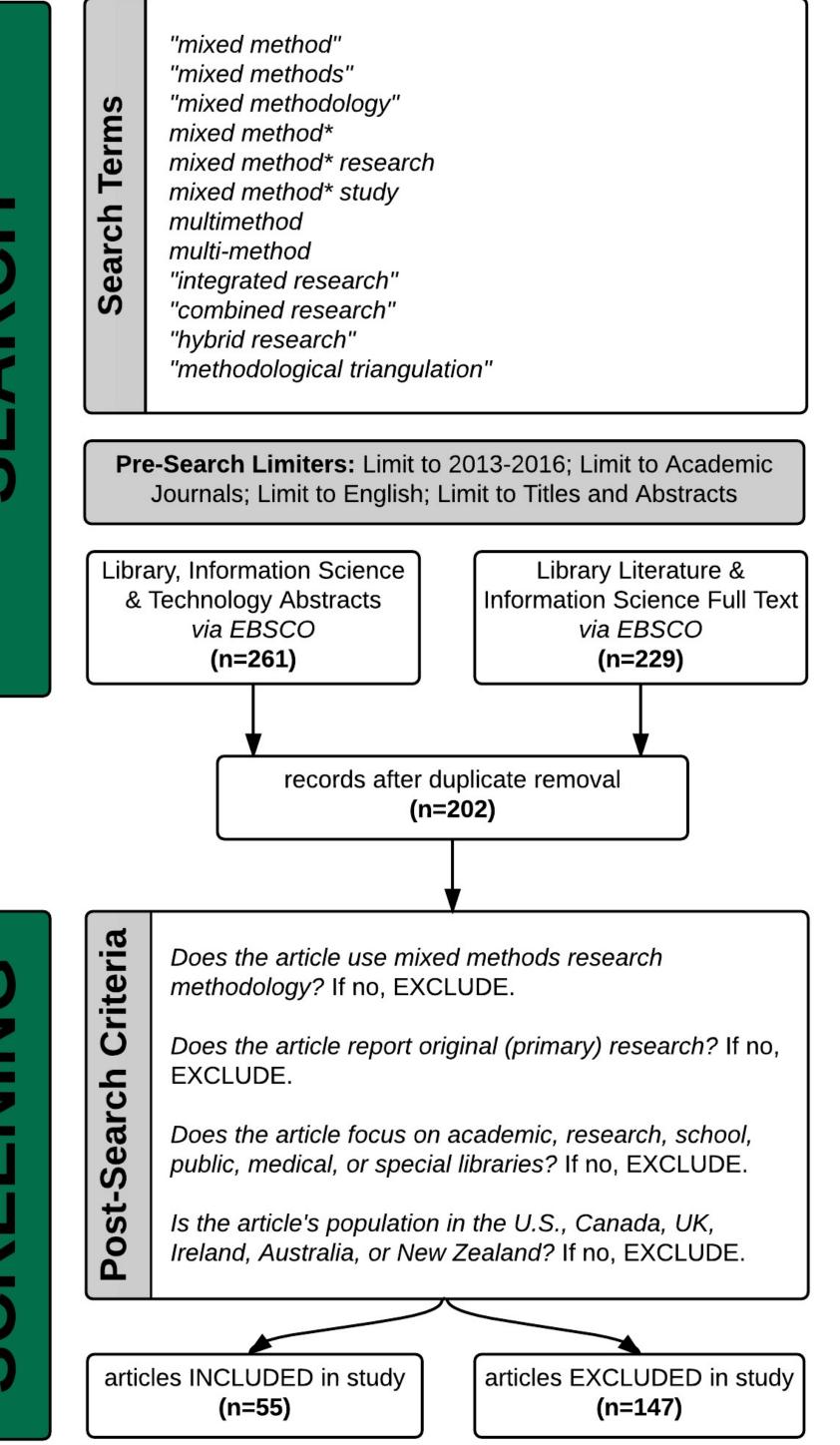


Figure 2. Scoping review flow chart

### Conclusions

This preliminary review has determined protocol and eligibility criteria for a full scoping review.

### Next Steps

The following next steps will be completed:

### Citations

Arksey, H. & O'Malley, L. (2003). Scoping studies: Towards a methodological framework. International Journal of Social Research Methodology, 8(1): 19-32. Creswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed methods research. SAGE Publications (2nd ed.) Thousand Oaks, CA: SAGE Publications. Greene, J. C. (2007). Mixed methods in social inquiry. San Francisco, CA: Jossey-Bass. Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. Journal of Mixed *Methods Research*, 1(2), 112–133. Journal of Mixed Methods Research. (2016). Retrieved from: http://mmr.sagepub.com/ Mays, N., Roberts, R., & Popay, J. (2001). Synthesizing research evidence. In Methods for studying the delivery and organisation of health services, editors N. Fulop, P. Allen, A. Clarke & N. Black. London: Routledge. Small, M. L. (2010). How to Conduct a Mixed Methods Study:

The full review will:

• Map the types of methods used along with the type of research questions that they answer, thus revealing the current landscape of mixed methods in the field;

• Contribute to an increased understanding for LIS scholars who want to position their studies within mixed methods applications; and

• Provide researchers with examples of methodological combinations to answer LIS research questions.

• Update search terms

• Extend search years and databases

• Re-run searches

• Screen citations with inclusion and exclusion criteria

• Review included full articles for eligibility

• Chart the findings

• Report on the results

Recent Trends in a Rapidly Growing Literature. Annual Review of Sociology, 37(1), 57-86.