

## **Interview Guide on Systematic Review and Meta-analysis**

### **Introductory questions**

1. Tell me about your area of expertise. How are systematic review and meta-analysis important in your work?

*(Prompt participants to describe a specific recent experience with a systematic review and meta-analysis.)*

### **Stages of Systematic Review and Meta-analysis**

#### **Defining a Question**

2. When you set out to conduct a systematic review and meta-analysis, what informs your research questions?

#### **Article Relevance Judgments**

3. In the systematic review you described at the beginning of the session, do the papers you decided to include come from a variety of disciplines or employ a variety of measures?
  - a. If so, how do you think about the relevance of individual pieces of evidence to your research questions or your motivating problem?
  - b. If not, what is your reason for reviewing tightly scoped phenomena?
4. How do you document your judgments about the relevance of each study in your review, so you can consider them later?

#### **Codebook Specification**

5. What kind of information do you typically extract from each article (e.g., methodological considerations, effect size or information needed to calculate effect size, interpretations of results, the discipline or field of study)?
  - a. Is it important to maintain a record of effects in terms of the units of measurement used in the study, or do you focus on standardized effect sizes?
6. How do you keep track of all this information as you conduct a review? Do you and your team use a *consistent codebook or form*?

### **Identification and Grouping of Effects**

7. When studies in a review use different measures to address similar research questions, do you group the studies differently than you would if they used the same measures? What kinds of differences in research design make it inappropriate to group studies together?
8. Do you group within- and between-subjects designs separately for analysis purposes?
  - a. Do you base this decision on a judgment of whether it is more natural to think of an effect as occurring within or between individuals?
9. Are you ever concerned about potential bias in a single study resulting in an overestimation of true effect size (i.e., regression to the mean)?
  - a. If so, do you employ bias-corrected measures for effect size like Hedge's  $g$ ?

### **Visualizations for Meta-Analysis**

10. Do you use visualizations as an analytic tool when conducting a meta-analysis? Please describe or sketch the visualizations you like to use.
  - a. What do you find helpful about these visualizations?
  - b. What do you find confusing or ambiguous?
11. Do you use visualizations or some other method to check the quality of your analysis (e.g., to test model assumptions or the presence of publication bias)?

### **Prediction and Decision-Making**

12. At the end of your systematic review and meta-analysis when you make predictions about real-world events, how do you express these predictions to stakeholders?

13. When you aggregate the evidence in your meta-analysis, how important are the original units of measurement used in individual studies vs standardized effect sizes?
14. What does the aggregated effect size distribution which results from your meta-analysis tell you about what to expect in the real world? What does it not tell you?
  - a. How do you account for these ambiguities when drawing conclusions from your review for a general audience?

**Circling back to the big picture**

15. In your experience, how is systematic review ad hoc?
16. What are the greatest barriers to the validity of systematic review and meta-analysis?