How Do We Choose the Right Survey Design?

We choose the research design based on the research question we intend to answer. There are three broad categories of research questions used: (1) descriptive, (2) explanatory, and (3) evaluative.

Descriptive questions are ones that ask how much of *X* is out there. For example, we might ask, *What is the prevalence of diabetes in the United States in 2018?* This question is asking for a snapshot of 2018; therefore, a cross-sectional design would work well. If, however, we asked *How has the prevalence of diabetes in the United States changed between 1990 and 2018?*, we are asking for a whole bunch of snapshots. In this case, a trend study would be the best design.

Explanatory questions are those that ask about the relationships between two or more variables. For example, we might ask, *Does obesity cause diabetes?* Or, *Does living in disadvantaged neighborhoods increase the probability of a diabetes diagnosis?* The first question is asking about causation: *Does increased weight cause diabetes?* Causation is best answered with a panel design so we can see change over time within participants' weight and diabetes diagnoses. The latter question can be answered with a cross-sectional study. In a cross-sectional design, the data will tell us about the differences in diabetes diagnoses for those living in varying neighborhoods.

Evaluative questions are a special form of explanatory question that are used specifically to evaluate (causally) social programs or interventions. These questions ask, *Is this program effective?* Or, *Will a program of exercise, combined with nutrition, lower the risks of diabetes?* Generally, some form of panel design is best for this type of question. A before-and-after program design would be ideal.

More questions? See questions 4, 5, and 6.