Mixed Methods Research Design

Your research design will set the specifications of your study. When determining your research design for mixed methods research, please consider the following options:

Phenomenon = event/occurrence/circumstance
Variable = what you are studying

General Guidelines
Use a mixed methods research design when:

- You need a better understanding of the problem that you are researching
- You need to validate both qualitative and quantitative methods of research
- You need more information than the exclusive use of a qualitative or quantitative research method might offer.

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Multiple Model Study **Mixed Method Study**

Multiple Model Versus Mixed Methods: What's the Difference?

A **mixed method research design** relies on **both qualitative and quantitative methods** with which to study an event or circumstance. Both methods can be used **at the same time** and/or **at different phases** within the same study.

Types of Mixed Methods Research Design

Exploratory Sequential Design
Both qualitative and quantitative research is used. The qualitative study is the first one presented followed by the quantitative study. Exploratory sequential design is used when you are developing a theory, need to discover variables, or are developing and exploring measures or instruments.
Example of an exploratory sequential design: You're interested in understanding the key characteristics of recovery from a relationship breakup, with the intent of creating a measure that will assess where people are in their recovery process. You start by conducting in-depth, detailed interviews asking individuals to describe their experience after a breakup. From these detailed **qualitative data**, you find consistent themes (e.g., feelings of despair in the first weeks following breakup) to incorporate into your

quantitative measure(s) (e.g., Asking participants to rate on a scale of 1-7 their feelings of despair in the first weeks after a breakup) to obtain **quantitative data**. **The interview links both quantitative and qualitative designs, allowing for the integration of methods.**
Resource. Sage Research Methods Datasets (2019).

Confirmatory Sequence Design
Both qualitative and quantitative research is used. The quantitative study is the first one presented followed by the qualitative study. Confirmatory sequence design is used to obtain detailed information to explain results from quantitative analyses.

Example of a Confirmatory Sequence Design
You're interested in understanding people's emotional experiences when they first enter college. You collect data by giving college freshmen a multitude of surveys asking them to rate their very emotions. From these **quantitative data** you notice a wide range of anxiety levels and want more detailed information about precipitating factors. You then develop an interview plan consisting of open-ended questions about experiences of anxiety (**qualitative data)** that you will use on a smaller number of participants so that you can obtain more detailed information.**The interview plan is what links both quantitative and qualitative designs, allowing for the integration of methods.**

Multiple Model Research Design
A multiple model research design uses both qualitative and quantitative data, but **each type of data is treated as separate sets.** Each type of data is analyzed as qualitative or quantitative, and each separate set of analyzed data is used **together** to examine an event or circumstance. Using more than one method allows for **triangulation,** which accurately measures the validity and trustworthiness of the results of an experiment.In research design, triangulation helps to make sure that results are not affected by the bias, or partial findings, of any particular research method.

Example of triangulation used in a multiple methods research design: Including more than one set of data gained from questionnaires, audio interviews, and digital diaries of instructors who prepare students to become teachers is an example of how several methods of data collection can be used to come to a conclusion.

Limitations
Keep in mind that a mixed methods research design has some limitations. These limitations include:

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- Your data will tend to be complex, so it might be difficult to analyze.
- There is a considerable amount of time involved in using a mixed methods research design.
- There is more of a chance that you will have errors in a mixed methods research design compared to a single methods research design because multiple areas of expertise are needed to ensure rigorous and high-quality data collection.