Post 1

The use of both qualitative and quantitative methods in research is known as a mixed method study (Tariq & Woodman, 2013). In order for the study to be considered mixed method, it would need integration of approaches at the design, analysis or presentation stage (Tariq & Woodman, 2013). Quantitative research sets out to test a hypothesis and is deductive. The advantage of quantitative research is that it minimizes confounding and if the sample is large enough generalized findings can be generated (Tariq & Woodman, 2013). The disadvantage of quantitative research is that it lacks a hypothesis on why or how things are happening and it cannot explain complex social or cultural phenomena (Tariq & Woodman, 2013). Qualitative research uses open ended questions and hypotheses are typically derived from data gathered. The advantage of qualitative research is that when high quality data is uncovered it can generate theory that helps to guide practitioners and policy makers (Tariq & Woodman, 2013). The disadvantage is that sample sizes can be small, lack in-depth exploratory work, and generalizability (Tariq & Woodman, 2013).

**Advantages of using mixed method**:

Complementarity: Data from one method can be used to highlight results from another study (Tariq & Woodman, 2013).

Development: Results from one method can be used to develop or inform the use of another method (Tariq & Woodman, 2013).

Initiation: Using different methods allows researchers to look for areas of incongruence in order to generate new insight (Tariq & Woodman, 2013). s

Expansion: Allows researchers to expand and examine different aspects of a research question that require different research methods (Tariq & Woodman, 2013).

Triangulation: Researchers can corroborate findings using the data found in both methods (Tariq & Woodman, 2013).

**Disadvantages of mixed method studies**:

-Some researchers feel that quantitative and qualitative are separate and incompatible paradigms making they unable to be combined in research

-Mixed method studies can be time consuming and requires researchers to be knowledgeable in both types of research (McKim, 2017).

-Achieving true integration of both methods can be difficult and requires innovative thinking to move between the two methods (Tariq & Woodman, 2013).

-Researchers find it difficult to present mixed method data and, in the end, may present the information separately, however as more of these methods are used confidence grows with using the method (Tariq & Woodman, 2013).

When researchers decided to create a study the biggest question they need to ask is “Would using a mixed method study add more to the value of the research then a single method?” (McKim, 2017).

References

McKim, C. A. (2017). The Value of Mixed Methods Research: a mixed method study. Journal of Mixed Methods Research, 11(2), 202-222. <https://doi.org/10.1177/1558689815607096>

Tariq, S., & Woodman, J. (2013). Using mixed methods in health research. JRSM short reports, 4(6). https://doi.org/10.1177/2042533313479197

Post 2

Some researchers prefer to use many different qualitative and quantitative research methods for their studies. However, there are some pros and cons to both methods. In qualitative research, the studies are based on person’s lives, lived experiences, behaviors, emotions and feelings as well as organizational functioning, social movements and cultural phenomena (Rahman, 2016). In qualitative research, data can be collected by asking open ended questions to get past the superficial responses and get deeper to gather information from the participants emotional response. This is advantage in this research method because it allows the researcher to gain an emotional response from the participant which most often drives a person’s decision or influences their behavior. One of the disadvantages of qualitative research is that the data collected is highly subjective. One researcher may feel important to include a part in the research and another research may feel the research is not worth spending time to pursue it. This can make the data generalized and inaccurate because of its reliance on the researcher’s subjective opinions.

In quantitative research, data is based on objective facts, statistics and numerical data. Some of the advantages is that it is easy to measure, and the results are all based off objective data. The statistical methods mean that the analysis is often considered reliable. It can also be easier to make predictions based on quantitative data because of its numerical data. The disadvantage to quantitative data is it can tell you what is happening but not why. It cannot account for non -numerical data such as human emotion or beliefs as qualitative data does. Quantitative data can be expensive and time consuming. In quantitative research, data can be collected asking close ended questions which can lead to limited outcomes which results can’t always represent the actual occurring events. By using a combination of qualitative and quantitative data can improve an evaluation of a study by ensuring the limitations of one type of data can be balance by the strengths of the other.

Reference

Rahman, S. (2016) The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language “Testing and Assessment “Research: A literature Review. Retrieved from [https://www.researchgate.net/publication/309889936\_The\_Advantages\_and\_Disadvantages\_of\_Using\_Qualitative\_and\_Quantitative\_Approaches\_and\_Methods\_in\_Language\_Testing\_and\_Assessment\_Research\_A\_Literature\_Review](https://www.researchgate.net/publication/309889936_The_Advantages_and_Disadvantages_of_Using_Qualitative_and_Quantitative_Approaches_and_Methods_in_Language_Testing_and_Assessment_Research_A_Literature_Review%22%20%5Ct%20%22_blank)

Post 3

**Mixed Methods**

Mixed methods research involves collecting and analyzing both quantitative and qualitative data. The quantitative data includes closed-end information that undergoes statistical analysis and results in a numerical representation. Qualitative data, on the other hand, is more subjective and open-ended. It allows for the “voice” of the participants to be heard and interpretation of observations. he basic premise of this methodology is that such integration permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis (Agency for Healthcare Research and Quality, 2013).

**When are mixed methods used?**

Mixed methods research is particularly suited:

* **When one wants to validate or corroborate the results obtained from other methods.**
* **When one needs to use one method to inform another method.** For instance, when little is known about a topic and it is necessary to first learn about what variables to study through qualitative research, and then study those variables with a large sample of individuals using quantitative research.
* **When one wants to continuously look at a research question from different angles, and clarify unexpected findings and/or potential contradictions.**
* **When one wants to elaborate, clarify, or build on findings from other methods.**For instance, if a causal relationship has being established through experimental research but one wants to understand and explain the causal processes involved through qualitative research.
* **When one wants to develop a theory about a phenomenon of interest and then test it.** Usually, qualitative research is more suitable to build theory, while quantitative research provides a better way of testing theories.
* **When one wants to generalize findings from qualitative research (Food Risc, 2016).**

These are just a few of the ways that methodologies may be combined in one study to create mixed methods research. Additional modules in this series will provide more detailed information regarding the actual methods and how to analyze the results. However, it is first important to have a clear understanding of some of the advantages and challenges associated with using mixed methods research.

**Advantages:**

* Both quantitative and qualitative research have weaknesses. Quantitative research is weak in understanding the context or setting in which data is collected. Qualitative research may include biases and does not lend itself to statistical analysis and generalization. Mixed method strategies can offset these weaknesses by allowing for both exploration and analysis in the same study.
* Researchers are able to use all the tools available to them and collect more comprehensive data. This provides results that have a broader perspective of the overall issue or research problem.
* The final results may include both observations and statistical analyses. Therefore, the results are validated within the study. Using both approaches in one study provides additional evidence and support for the findings.
* Mixed methods combines inductive and deductive thinking and reasoning.
* The researcher can use both words and numbers to communicate the results and findings and thus, appeal to a wider audience.
* Combining methodologies helps to reduce the personal biases of the researcher.

**Challenges:**

* It is more time-consuming to collect both quantitative and qualitative data.
* The study may require more resources to collect both types of data.
* The research procedures are more complicated and may be out of the comfort zone of the researcher. Investigators are often trained in quantitative or qualitative methods and may need assistance crossing over.
* Methodology requires clear presentation when published or presented so that the audience can accurately understand the procedures and the findings (Grand Canyon University, n.d.).

References

Agency for Healthcare Research and Quality. (2013). *Mixed Methods:Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models*. Retrieved from Agency for Healthcare Research and Quality: https://pcmh.ahrq.gov/sites/default/files/attachments/MixedMethods\_032513comp.pdf

Food Risc. (2016). *Mixed methods research*. Retrieved from Food Risc Resource Center: http://resourcecentre.foodrisc.org/mixed-methods-research\_185.html

Grand Canyon University. (n.d.). *Overview of Mixed Methods*. Retrieved from Center for Innovation in Research and Teaching: https://cirt.gcu.edu/research/developmentresources/research\_ready/mixed\_methods/overview