

# What is Qualitative Research?

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"What is qualitative research?" "Is it a valid research methodology?" A few years ago I submitted a manuscript of my dissertation research that utilized a qualitative research method for possible publication. These were the comments I received from one of the reviewers. In our science-based world as medical laboratory professionals, we focus on the numbers. What are the standard deviation, the coefficient of variation, and the *p* value? What does a ROC curve or an ANOVA comparison indicate? We are accustomed to analyzing numbers, Levey-Jennings control charts, and graphs. However, even in our world of numbers some information is best collected and analyzed utilizing a qualitative research method.

Before we delve into the qualitative research methods, let's review the basics of quantitative research. Quantitative research allows data to be collected that focuses on precise and objective measurements that use numerical and statistical analysis to support or refute a hypothesis. The results of quantitative research are often generalizable, predictable, and provide a causal explanation. The researcher role is considered detached and impartial. Data collection methods consist of random sampling of people that should statistically represent a population, a controlled experiment that can be reproduced in which variables can be adjusted to examine the effect, or documentation of observations as with a case study. Statistical analysis of the data may include calculation of a mean, standard deviation and a *t*-test. Analysis of the numbers is used to objectify the data. This is the research method with which most of us are probably more familiar.

However, there is a place for qualitative research in our profession. A researcher that selects a qualitative research method collects open-ended, emerging data that is then used to develop themes. This method allows for a study of an exploratory nature. The exploration and discovery of data via a qualitative research method often indicates that there is not much written about the participants or the topic of study. Some of the characteristics of qualitative research include taking place in a natural setting, using multiple methods that are interactive and humanistic, emerging data rather than prefigured data, and being fundamentally interpretive.

Five strategies have been identified as qualitative research methods. They include ethnographies, grounded theory, case studies, phenomenological research and narrative research.

Ethnographies allow the researcher to collect data by observation of members of a cultural group in their natural setting over a period of time. In grounded theory, the researcher is able to formulate a theory related to a process, action, or interaction grounded in participants' responses and reactions. Research that focuses on the lived experiences of humans becomes the foundation of phenomenological research. Participant stories that are retold by the researcher in a narrative list of life events are known as narrative research. Case studies are conducted via the researcher who explores in detail "a program, an event, an activity, a process of one or more individuals"<sup>1</sup>.

The purpose of my research was to explore and document the career paths of women medical laboratory scientists who had become higher education administrators. Data collected by a quantitative research method was not going to provide the type of data that I hoped to collect. Therefore, I selected the case study research method that allowed each participant to "tell their story." Data was collected via a semi-structured open-ended interview format. Key words and phrases were used to develop categories, themes, and data points. The "words" and "stories" of the participants were used to support the identified themes. The thick, rich description of their career paths also provided a validation method.

As medical laboratory professionals, we focus on the numbers and may be more comfortable with conducting and analyzing data from a quantitative research method. However, we need to be open-minded and realize there is validity and value to data collected via a qualitative research method. The themes formulated from the data and the words of the participants drive home the story. Those words bring their experiences to life, thus allowing us to make a connection. For this researcher, it was important to document the experiences of my colleagues. My hope is that by sharing their stories through the use of a qualitative research method, we have added quality information to the literature bank as well as telling the story of our experiences as medical laboratory professionals.

## REFERENCE

1. Creswell J. Research design: qualitative, quantitative, and mixed methods approaches. Thousand Oaks, CA: SAGE Publications, Inc.;2003.