A Brief Preview of Q Methodology

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ABSTRACT

Q methodology systematically studies subjective matters such as thoughts, beliefs, and behaviors on a wide range of topics. The purpose of this chapter is to give a brief overview of Q methodology to readers across disciplines. This chapter presents several advantages of Q methodology that make it attractive to researchers and practitioners who are interested in understanding different perspectives or behavioral patterns among individuals toward any given topic. The author also discusses Q’s distinct position as a methodology and how it fits into the qualitative-mixed-quantitative continuum. The chapter further uses two research studies the author conducted as applications to demonstrate how to perform a Q methodological study, involving the following steps: development of the Q sample, selection of the participants (P set), Q sorting, and analysis and interpretation of Q sorts.

INTRODUCTION

Q methodology (Q) is a way to systematically examine subjective matters, such as opinions, beliefs, behaviors, and attitudes (Stephenson, 1975). Q enables researchers to identify different perspectives on a given topic within a group and the number of individuals who hold each perspective (McKeown & Thomas, 1988). It further compares across these perspectives to reveal the similarity and difference among opinions held by these groups of individuals. Q can be used for both theory building and theory testing (Ramlo & Newman, 2011). This chapter gives a brief overview of Q methodology and its unique position as a methodology, and further demonstrates how to utilize and interpret Q methodology through specific examples.

In Q methodological studies, participants are often given a collection of items/statements on a particular topic and asked to sort this set of items from their own point of view. Through this sorting process, respondents express their subjective opinions on the topic (Brown, 1980). Individuals’ sorts then are analyzed statistically to reveal operant subjective perspectives, both different and consensual ones,
among members in the group. In that way, Q methodology is a means of measuring operant subjectivity (Brown, 1980).

Q can be thought as an inversion of conventional R methodology (McKeown & Thomas, 1988). R methodology is generally used to examine the interrelationship among variables (items) of an instrument/test in an effort to generate patterns (factors) underlying the variables. By contrast, Q is used to investigate patterns of intercorrelations among participants (McKeown & Thomas, 1988). Correlated participants indicate similar behaviors or attitudes toward a topic shared by these individuals. Q further provides detailed information of these attitudes or perspectives, including both the differences and the consensus.

Using Q has several benefits. First, Q involves both the Q-sorting process, qualitative in nature, and sophisticated statistical analyses. This enables researchers to examine different patterns of thoughts or opinions in a systematic yet efficient way, which is difficult to achieve through many common research approaches. Second, validity is not a concern in Q (Brown, 1980; Ramlo, 2015). Validity is related to the truth of inferences, typically drawn from the external references or standpoints of the researchers. In a Q study, individual participants offer their subjective points of views by sorting the statements regarding a topic based on their own experiences. In this way, the Q sorting process is self-referent; that is, each participant’s view is determined independent from the researchers’ view (Ramlo, 2015). Therefore, validity is irrelevant in Q as it measures individual personal opinions related to a topic (Brown, 1980). Furthermore, Q correlates participants to generate patterns among them. In other words, people are considered the variables in Q (see “Participants: P-Set” section). Consequently, a large sample size is not necessary (McKeown & Thomas, 1988).

**Q’s Position in Research Methodology**

William Stephenson, a British psychologist and physicist, first introduced Q in the journal *Nature* in 1935 as a unique way to measure human subjectivity. Q as a methodology has mostly been in a controversial position in the social science fields since it was first introduced (Ramlo, 2015). Some treat Q as a qualitative method since it studies human subjectivity (e.g., opinions, points of view, or behaviors), which is typically considered socially and/or culturally constructed. Others consider Q a quantitative approach as it involves rigorous and sophisticated statistical analyses. With mixed methods research gaining popularity in the last two decades (Creswell, 2010), Q has become more accepted as a mixed method (Ramlo, 2015).

To begin, Q shares similarity with qualitative research (Brown, 2008). The ultimate goal of Q methodology is to understand human subjectivity. In Q, respondents give their subjective meaning to texts, pictures, etc. through the sorting process; and consequently reveal their subjective viewpoints or behaviors regarding the topic based on their own experiences (van Exel & de Graaf, 2005). In other words, the purpose of Q is to examine and reflect the internal viewpoint of the respondents rather than that of the external viewpoint of the researchers (Ramlo, 2015). Furthermore, in the data analysis of Q sorts, the analytic choices are often made based on theoretical considerations instead of statistical significance (see “Statistical Analyses of Q Sorts” section). Indeed, in his article in *The SAGE Encyclopedia of Qualitative Research Methods*, Brown (2008) argued that the assumptions and the purposes of Q are more aligned with qualitative research.

Meanwhile, Q also uses sophisticated statistical procedures for data analysis, similar to most quantitative research. Participants’ responses are analyzed through correlation and factor analysis, so that participants with similar viewpoints are grouped into factors. Weighted factor scores are then calculated