

Quantitative and qualitative research stem from different philosophical assumptions that shape the ways researchers approach problems and collect and analyze data. Positivism is often considered the traditional scientific method, which involves hypothesis testing and objective data gathering to arrive at findings that are systematic, generalizable, and open to replication by other investigators. For a time, the relationship between quantitative and qualitative researchers was somewhat adversarial, but gradually there was a trend toward rapprochement as researchers began to see quantitative and qualitative methodology as complementary. They believed that using quantitative methods in highly controlled settings ignored the participants' perspectives and experiences. Positivists believe that general principles or laws govern the social world as they do the physical world and that through objective procedures researchers can discover these principles and apply them to understand human behavior. The positivists, such as Francis Bacon (recall the anecdote in Chapter 1), stressed observation as the primary source of dependable knowledge. Furthermore, because researchers do not know in advance how naturally occurring events will unfold or what variables may be important, they do not begin a study with hypotheses. Quantitative research originated in positivism, a philosophic view formulated in Europe in the 19th century. Qualitative research is based on a different philosophical approach, which sees the individual and his or her world as so interconnected that essentially the one has no existence without the other. In the late 20th century, however, scholars began to call for an alternative to the quantitative approach in educational research (Guba & Lincoln, 1988). Historically, the quantitative approach has dominated education research. Qualitative research was the alternative.