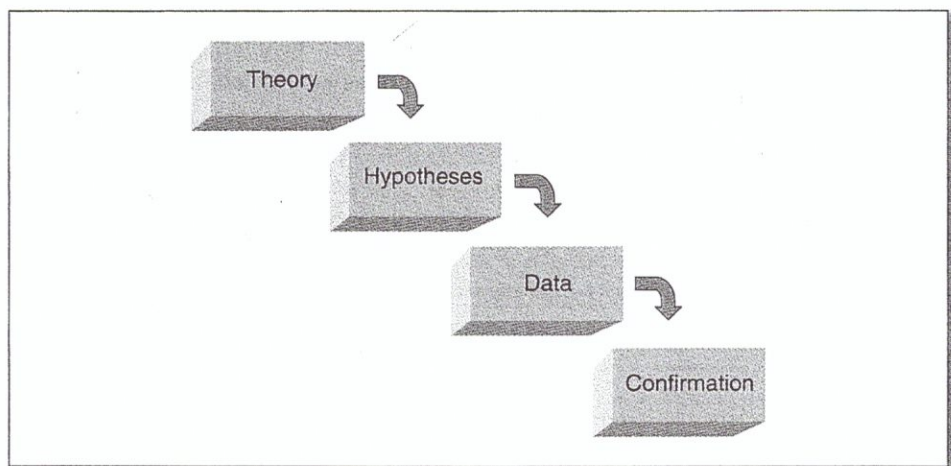


Overview of Educational Research

Traditional research in education is typically conducted by researchers who are somewhat removed from the environment they are studying. This is not to say that they are not committed to the research study and truly interested in the ultimate results but rather to say that they are studying people, settings, or programs with which they are seldom personally involved (Schmuck, 1997). They may in fact be removed from the actual research site, in many instances. Furthermore, traditional researchers often seek explanations for existing phenomena and try to do so in an objective manner. The primary goal of traditional educational research is “to explain or help understand educational issues, questions, and processes” (Gay & Airasian, 2000, p. 24). In traditional research, different research methods—the specific procedures used to collect and analyze data—provide different views of a given reality. These various research methods tend to be put into two broad categories—quantitative approaches and qualitative approaches—based on different assumptions about how to best understand what is true or what constitutes reality (McMillan, 2004). Generally speaking, quantitative research methodologies require the collection and analysis of numerical data (e.g., test scores, opinion ratings, attitude scales); qualitative research methodologies necessitate the collection and analysis of narrative data (e.g., observation notes, interview transcripts, journal entries).

Quantitative research methodologies utilize a deductive approach to reasoning when attempting to find answers to research questions. **Deductive reasoning** works from the more general to the more specific, in a “top-down” manner (Trochim, 2002a). As depicted in Figure 1.1, the quantitative researcher might begin by thinking up a theory about a given topic of interest.

Figure 1.1 Process of Deductive Reasoning as Applied to Research



Source: Adapted from Trochim, 2002a.