Lesson 25

Qualitative research and qualitative data analysis

The Qualitative–Quantitative continuum has received a lot of attention over the past 20 years, usually accompanied with much controversy. When you read articles dealing with this debate, you might think that this is not a continuum, but two distinct armed camps. However, as you become more familiar with the research available, you will find that many studies are neither purely qualitative nor quantitative. This is in line with Larsen-Freeman and Long (1991), who described these two terms as two ends of a continuum that have different data-collecting procedures along with different degrees of subjectivity in interpreting data. My students' findings concur with this opinion, in that they have classified many studies somewhere between the two ends of this continuum.

The problem is that epistemological issues regarding the nature of reality have been wedded with these two methodologies, resulting in the polarization of a number of researchers into camps. I agree with Miles and Huberman (1994), however, who stated, "We believe that the quantitative–qualitative argument is essentially unproductive . . . we see no reason to tie the distinction to epistemological preferences" (p. 41). Therefore, I am not going to address the related philosophical issues of positivism and postpositivism in this book because I do not believe they are important for the consumer of research at this time.

The two ends of this continuum mostly have their origins in different disciplines. Quantitative research has come mainly from the field of psychology, where there has been heavy emphasis on the use of statistics to make generalizations from samples to populations, thus the label quantitative methods. However, most methods under qualitative research have originated with anthropologists and sociologists who rely heavily on verbal description rather than numbers. Consequently, quantitative research is characterized by the use of numbers to represent its data, and qualitative research is characterized by verbal descriptions as its data.

Quantitative research frequently uses sample strategies for generalizing findings to larger populations,

whereas qualitative research works to uncover information from information-rich samples.

Although some mistakenly think that qualitative research does not use any numbers or statistics, this is not necessarily so. A number of qualitative studies involve numbers in the form of frequencies of occurrence of certain phenomena and are analyzed by such statistical methods as chi-square. In fact a number of books have been written (e.g., Agresti, 1996; Leonard, 2000) describing statistical procedures for qualitative research. Another misunderstanding regarding the differences between qualitative and quantitative approaches is that the former is a theoretical, whereas the latter is not. Although most qualitative research studies do not begin with theoretical

hypotheses, developing theory (or, to be more precise, a theoretical hypothesis) is often their goal. For instance, an approach referred to as grounded theory, which arose out of anthropology, has become part of the qualitative research repertoire in applied linguistics. The express goal of this method is to develop a theoretical hypothesis from descriptive data as the data accumulate from the ground up. A good example of how such a theory is developed is Spielmann and Radnofsky's (2001) qualitative study, which looked at tension/anxiety in the language learning classroom. They clearly stated, ". . . our goal was to develop a grounded theory—one that is inductively based on the data rather than deductively derived from a predetermined hypothesis—on the role of tension in the process of instructed L2 acquisition" (p. 260).

So what is qualitative research? Miles and Huberman (1994, pp. 5–8) defined what they thought common features across different manifestations of qualitative research are. I have extracted and summarized them in the following list. Data are gathered:

- in natural settings,
- through concentrated contact over time,
- holistically—"systematic, encompassing, integrated,"
- from deep inside the situation with preconceived notions held in check,
- by the researcher who is the "main 'measurement device,' "
- to analyze for patterns, comparisons, and contrasts,
- with interpretations constrained by theoretical interests and/or "internal consistency,"
- consisting mainly of verbal data.

In other words, any study that is done in a real-life setting, involving intensive holistic data collection through observation at a close personal level without the influence of prior theory and contains mostly verbal analysis, could be classified as a qualitative study. However, there are differing opinions as to what constitutes qualitative research. Gall et al. (1996) listed under their section on qualitative research such things as case studies, along with a list of 16 research traditions that are typically referred to as qualitative research. Among these are methods such as ethnography, protocol analysis, and discourse analysis—all commonly used methods in applied linguistics. Wolcott illustrated over 20 strategies in his famous tree diagram (Miles & Huberman, 1994, p. 6). Tesch organized 27 strategies into a flowchart under four general categories (Miles & Huberman, 1994, p. 7). Nunan (1992) included ethnography, case studies, introspective methods, and interaction analysis in his book. Johnson (1992) limited her book to case studies and ethnography. Interestingly, the TESOL Web site2 lists only three strategies under the heading of qualitative research: case studies, conversational analysis, and ethnography.

Consequently, it is difficult to provide a simple overview of all of these qualitative research strategies for the up-and-coming consumer. Other texts are better designed to do this (e.g., Denzin & Lincoln, 2000; Le-Compte, Millroy, & Preissle, 1992). In the following, however, I

use the three general strategies that are mentioned in the TESOL Web site, and I have added a fourth—protocol analysis—mentioned by Gall et al. (1996).

These strategies are commonly used in applied linguistics for the purpose of introducing qualitative research strategies.

Case Studies. Case studies are frequently found in applied linguistics research. Gall et al. (1996) defined a case study as, the in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon. A case study is done to shed light on a phenomenon, which is the processes, events, persons, or things of interest to the researcher. Examples of phenomena are programs, curricula, roles, and events. Once the phenomenon of interest is clarified, the researcher can select a case for intensive study. A case is a particular instance of the phenomena. (p. 545)

Notice that the focus of a case study is on a specific phenomenon. Lam and Lawrence (2002), for example, did a case study that focused on "changes in teacher and student roles in a computer-based project" (p. 295) as the phenomena in a single Spanish foreign language classroom. They used a number of procedures to collect their data: observations, focus groups, questionnaires, and interviews. The data they worked with were mainly verbal. Being a case study that involved only one intact3 class, the researchers recognized that their findings were not generalizable to larger populations. However, they believed that their findings were valid to transfer important implications for teaching and for stimulating future research.

Ethnography and Conversational Analysis. These next two approaches are listed in the TESOL Web site. In my opinion, they are two ends of a continuum under the qualitative research banner. On the ethnography end, data are gathered from a number of sources (e.g., notes from observations, interviews, transcriptions of video and audio recordings, etc.), resulting in large quantities of information. The verbal data are examined carefully for any reoccurring themes, coded, reduced into groups of related information, and organized into patterns perceived by the researcher. Interpretations and conclusions are warranted with thick descriptions4 of the data in the form of quotations from audiotapes, excerpts from interviews, and various documents for the purpose of triangulation.