Chapter 25

Conducting Qualitative Educational Research on the Internet

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Learning Objectives

1. Define “qualitative research.”
2. Compare qualitative and quantitative research.
3. Demonstrate the procedure for conducting a Web-based qualitative research.
4. Define “postmodern research.”
5. Describe the identifying characteristics of Web-based postmodern research.
6. Demonstrate the procedure for conducting Web-based postmodern research.
7. Summarize in your own words “post-modern dissertation research.” Describe the identifying characteristics of Web-supported post-modern research.

Abstract

“Qualitative research” is sometimes juxtaposed against “quantitative research,” other times against experimental research. The view taken in this chapter is that students should review both sides of the issue, explore a number of research styles offered in this and other books, and consider too the myriad of different methodologies.
Qualitative research methodology can be either ethnographic observations and interviewing, grounded theory, life histories, case studies, curriculum criticism, policy studies, ethnmethodology, social or educational critiques, a phenomenology, deconstruction or a genealogy. Frequently, data are collected from observations and interviews of selected individuals sometimes called “informants.” To some degree at least, the researcher must get personally involved in the research study; the researcher aims for clarity about their own biases, presuppositions and interpretations.

A qualitative study of online human behavior would describe a psychological, sociological or educational phenomenon among users of cell phones, newsgroups, e-mail, chat or other Internet technology. One of these more common phenomena, for example, may be called Internet presence. “Internet presence” describes a characteristic that denotes an attitude, demeanor, and manner of a person or group in communication using a Web or chat protocol. The term is adapted from Shank’s presence theory of “what makes things unique in themselves” (2006, p. 226) into this more restricted study of online human behavior. Favorable characteristics of online human behavior include level-headedness, quickness, self-assurance, self-composure, sobriety, alertness, and so on. Favorable characteristic denotes a favorable presence over a Web or chat protocol. Realization of a favorable Internet presence could be considered to be a transformative insight gained as we experience a magnanimous act by someone, the act itself reflecting favorably on our opinion of the character of the person or group. For example, the ability to keep a secret is a difficult. With today’s technology and peer social and organizational pressures to maintain instantaneous communication, it becomes more difficult than ever to keep a secret. Someone who does so may be a transformative insight, valued highly among students or teachers within a group.

Qualitative vs. Quantitative Research

Qualitative online educational research is sometimes juxtaposed against quantitative research. The view taken in this book is that students should review both sides of the issue, explore a number of research styles offered in this and other books, and also consider the myriad of methodologies available before making a decision. As a means
of getting started in your search, examine Table 1 to compare qualitative and quantitative research.

### Table 1. Comparing the identifying characteristics of qualitative and quantitative research (after Gall, Gall & Borg, 2003).

<table>
<thead>
<tr>
<th>Qualitative Researchers</th>
<th>Quantitative Researchers</th>
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<tbody>
<tr>
<td>Assume an objective social reality</td>
<td>Assume that social reality is constructed by the participants in it</td>
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<tr>
<td>Assume that social reality is relatively constant across time and settings</td>
<td>Assume that social reality is continuously constructed in local situations</td>
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<tr>
<td>View causal relationships among social phenomena from a mechanistic viewpoint</td>
<td>Assign human intentions a major role in explaining causal relationships among social phenomena</td>
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<tr>
<td>Take an objective detached stance toward research participants and their setting.</td>
<td>Become personally involved with research participants, to the point of sharing perspectives and assuming a caring attitude</td>
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<tr>
<td>Study populations or samples that represent populations</td>
<td>Study cases</td>
</tr>
<tr>
<td>Study behavior and other observable phenomena.</td>
<td>Study the meanings that individuals create and other internal phenomena</td>
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<tr>
<td>Study human behaviour in natural or contrived settings</td>
<td>Study human actions in natural settings</td>
</tr>
<tr>
<td>Analyse social reality into variables</td>
<td>Make holistic observations of the total context within which social action occurs</td>
</tr>
<tr>
<td>Use preconceived concepts and theories to determine what data will be collected</td>
<td>Discover concepts and theories after data have been collected</td>
</tr>
<tr>
<td>Generate numerical data to represent the social environment</td>
<td>Generate verbal and pictorial data to represent the social environment</td>
</tr>
<tr>
<td>Use statistical methods to analyze data</td>
<td>Use analytic induction to analyze the data</td>
</tr>
<tr>
<td>Use statistical inferences to generalize findings from a sample to a defined population</td>
<td>Generalize case findings by searching for similar cases</td>
</tr>
<tr>
<td>Prepare impersonal objective reports of research findings</td>
<td>Prepare interpretative reports that reflect researchers’ constructions of the data and an awareness that readers will form their own constructions from what is reported</td>
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</table>

Procedure for Conducting Qualitative Research

Unlike experimental research, there is no single accepted outline for a qualitative research proposal or report. In 1997, Heath and Atkinson published a generic outline for family therapists working on-site, that may be readily applied to educational researcher working online. The generic outline that follows is suggested as a point of departure for qualitative research proposals. The outline is intended to serve as a point of departure for researchers, who must decide how to organize their proposals (a) to best communicate their ideas to their intended audiences and (b) to satisfy the demands of the context.
I. **Introduction**

A. Begin with something interesting (e.g., a quote or story to capture the reader’s interest).

B. Introduce your research question. What is it that you want to know or understand? How did you get interested in the topic? If your question has evolved since you began, describe the process.

C. Tell why there is a need for the study (e.g., company reps outside the city cite important gaps in their online training, senior high schools students in rural schools do not have access to qualified instructors offering advanced math courses). Cite literature calling for the need for research in this area or demonstrating lack of attention to the topic. In your own words, describe how you think this study will be useful.

D. Describe the intended audience for your research (e.g., company managers, navy recruits, seventh graders, etc.).

E. Describe your research product. What form will the report take (e.g., thesis proposal, course essay, Web site, blog, journal article, etc.)?

F. Conclude the introduction with an overview of your proposal.

II. **Research Paradigm**

A. Use specific language to name and describe your research paradigm (e.g., naturalistic, post-positivist). The term “paradigm” is used here to represent the epistemological, conceptual foundation for qualitative research.

B. Describe the philosophical correlates of your research paradigm (e.g., phenomenology, hermeneutics).

C. Cite authors who have defined your research paradigm in the social sciences and suggested its application to your field of study and/or your specific topic of study.

D. Explain the assumptions of your research paradigm.
   1. Broadly speaking, describe what you intend to accomplish through this research (e.g., expanding a knowledge base, generating hypotheses for quantitative research, developing a grounded theory, emancipating informants, establishing the trustworthiness of a theory).
   2. Explain assumptions about the nature of knowledge and reality that underlie your research paradigm. Discuss how a formal literature review will be used.
   3. Describe major tasks of the researcher in this paradigm of research. Comment on how the tasks differ in conventional social science research.
   4. Explain the type of relationship that the researcher has with the informants (e.g., unobtrusive observer, participant observer, collaborator, emancipation).

E. Suggest the appropriate criteria for evaluating the research findings, research process, and the research report. The criteria should be consistent with your research paradigm and well documented.
III. **Research Method**

A. Identify and generally describe your research method (e.g., ethnographic field study, single case study) and your research procedures (e.g., interview, observation, archival data, original documents).

B. Cite major authors who have described your research method.

C. Describe your intentions as you begin your study.
   1. Explain how you will select informants and gain entry into the research context (if relevant).
   2. Describe procedures you will take to protect the rights of your informants (e.g., informed consent, human subjects approval, debriefing).
   3. Describe the kind of relationship you intend to have with the informants. Will you be neutral, collaborative, or objective?
   4. Describe the data you will collect (e.g., field notes from memory, audio tapes, video tapes, transcripts of conversations, examination of existing documents, etc.).
   5. Describe your intended data collection procedures. If interviews are to be used, list your question(s) or attach an appendix. Describe any equipment to be used.
   6. Describe the procedures you will use to keep track of the research process. This will become part of your audit trail.
      a. **Process notes**: Day to day activities, methodological notes, and decision-making procedures
      b. **Materials relating to intentions and reactions**: personal notes about motivations, experiences with informants, etc.
      c. Instrument development information: revisions of interview questions, etc.
   7. Describe intended data analysis procedures (coding, sorting, etc.)?
      a. **Data reduction**: Write-ups of field notes, transcription procedures and conventions, computer programs used, etc.
      b. **Data reconstruction**: development

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**Qualitative Research Dissertations**

Carlton Drummond completed his Ph.D. thesis at Capella University in 2003 on “Authentic learner assessment in an online environment: Using instructional design techniques to create an assessment model for an introductory computer science course.” The theoretical basis for the study was derived from the current multitude of challenges to the problem of authentic assessment in online learning environments. Practice has shown that simply transferring face-to-face classroom assessment tools and methods to an online environment is inadequate and that such methodologies do not constitute authentic assessment in the online instructional environment. In order to build an
authentic assessment model, this study attempted to identify assessment methodologies used online into the learning process, and promote further learning.

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**Postmodern Web-Based Educational Research**

Internet-supported Web postmodern research deviates from the interpretive stance presented in this book. Postmodernism is a broad term encompassing several theoretical positions and interrelated concepts.

**Characteristics**

In postmodern research, everything is contested. Dominant discourses should be replaced by micro-histories (Alvesson & Skoldberg, 2000, p. 148). No single theoretical framework is considered adequate.

- Pluralism
- Well-grounded process of exclusion
- Cautious processes of interacting with empirical material
- Advance of totalizing theory
- Authorship and linguistic sensitivity
- Research and the sensitivities of the text

**Postmodern Dissertation Research**

*Quality of the Discourse*

Denise Simard completed her Ph.D. thesis in 2004 with Bloom’s revised taxonomy, entitled “Facilitation Strategies and the Acquisition of Higher Order Thinking Skills in Online Learning Communities: A Study of Theory Development.” The study used a qualitative research method, grounded theory, to verify a theory regarding the quality of discourse by Pre-K-12 educators who engaged in an online learning community. Previous studies had shown that the effectiveness of online professional development initiatives were measured through the use of participant responses concerning such topics as how well they liked the course or session rather than through measures that determine the acquisition of knowledge. Data were collected and validated through the triangulation of facilitator and member discourses within Laurillard’s Conversation Framework and Flateby and Metzger’s Cognitive Level And Quality Writing Assessment
2003 cognitive scale and member interviews. The facilitator and member discourse data showed that: discourse in an online learning community reflects evidence of higher order thinking in accordance with Bloom’s Taxonomy. Facilitation strategies promote the higher quality discourse by Pre-K-12 educators and participation by individuals who were technologically proficient and perceived his or her engagement in a facilitated professional development online learning community as relevant yielded evidence of higher order thinking skills for Pre-K-12 educators.

**Collectivist Ethos**

In 2004 Yong-Kang Wei completed a Ph.D. thesis at Iowa State University on “Rhetoric as Collective Ethos: From Classical Chinese Texts to Postmodern Corporate Images.” This dissertation explored the question of how to position ethos in rhetorical theory and practice by looking mainly at three areas: classical Chinese rhetoric, Web design, and the construction of corporate images in America after 9/11. In this thesis, traditional Western rhetoric ethos was perceived to be the appeal of one’s personal character, with a vocabulary heavily steeped in individualism and self-representation. In the dissertation, an argument for an alternative understanding of ethos was put forth, pointing out that ethos was essentially an invocation of cultural forces, with which rhetoricians not only identified themselves but also, through such identification, achieved their rhetorical purposes. The central point was that ethos is collectivist, not individualist.

**Tapestry of a Virtual Community**

In 2001, P.J. Murray completed a Ph.D. thesis at the Open University in the UK entitled “Reflection and Practice in Nurses’ Computer-Mediated Communications.” Within a postmodern and post-structuralist framework, the whole tenor of this study was congruent with emerging mixed method research approaches within both nursing and the study of CMC. Using a corpus of discussion threads, together with questionnaires, interviews and Virtual Focus Group discussions, all conducted entirely by CMC and over a six-year period, a tapestry of a virtual community, united through discussion of shared practice issues, emerged. The narratives of everyday discussions help to dispel some of the urban myths of CMC and show the possibility of real social engagement. A model of reflection derived from Kim’s phases of critical reflective inquiry and Johns’ framework for reflection on action is used to examine a pilot sample of discussion threads from the discussion list. This version of the model was shown to be insufficient to describe the reality of reflective discussion in such online forums, and a revised model was developed, inductively, from the data. This new model, tested against a larger sample of discussion threads, showed a qualitatively different form of reflection from that encountered offline. The online reflection was a group, as opposed to an individual, process, more action-oriented, and showed real reflection-in-action, as well as post-hoc reflection on action.
Intellectual Autobiography

In 2002 Ju-Ling Shih completed the thesis “A Study of Web-Based Higher Education Courses: An Intellectual Autobiography” and the Ed.D. degree at Columbia University Teachers College. This thesis was an intellectual autobiography based on a reflective practice of a two-year online teaching experience at a distant location to a group of English as a Foreign Language (EFL) students in Wenzao Ursuline College of Languages in Taiwan. The students’ initial distance learning experience consisted of elective courses in communication and film studies. The intent of the study was to discover the hidden praxis of technology in distance education, thus offering guidelines for educational administrators and practitioners in constructing their own programs. The pedagogy of the online courses was derived from an e-learning paradigm, iLEARN, which was an interactive learning framework designed based on educational theories that emerged from constructivism, distributed and collaborative learning, as well as social and situated cognition. Standard techniques, such as participant observation, online focus groups and interviews, were used in this study to analyze students’ perspectives toward the effectiveness of the courses. Observations of student interactions relied on their discussions in the electronic bulletin board, chat room, e-mails, and online file exchanges. Periodic surveys and self, peer and superior formative and summative evaluations were used to assess students’ evolution of understanding and internal exploration of themselves. Multiple-source documents and literature in various fields were analyzed to examine the issues that emerged in actual practices. It was concluded that transformation, emancipation, collaboration, and humanization were the four criteria of successful online education.

Quick Checklist for Conducting Qualitative Research on the Internet

The following is a checklist for web-based qualitative educational research (adapted from Leedy & Ormrod, 2003)

• **Purposeful:** My research questions are derived from the methods that I am using to collect and analyze data (not the reverse).

• **Explicit:** It yields explicit assumptions.

• **Rigor:** I am using precise methods of collecting, recording and analyzing data.

• **Open-minded:** I’m willing to modify my research hypothesis and interpretations of conflicting data.

• **Complete:** I want to provide readers with a thick description of the phenomena I am studying. I’m willing to spend time online and on site to understand the complexity and nuances of the phenomena I am studying, and to describe the physical environment, the attributes and capabilities afforded in the online setting, behaviors, and perceptions and feelings of the online participants.
• **Coherent:** I’ll triangulate the data from multiple data sources and multiple observers (where possible).

• **Persuasive:** I will present arguments that are logical, with evidence to support one interpretation to the exclusion of others.

• **Consensus:** Others agree with my interpretations.

• **Useful:** My project will yield a better understanding of a phenomenon. The results will yield conclusions that will enable more accurate predictions about future events, or lead to interventions that enhance the quality of life.

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### References


Leedy, P., & Ormrod (2003). *Practical research: Planning and design* (8th ed.). Prentice Hall. (This book is required reading in this course.)


