



Article

Challenges of Learning to Write Qualitative Research: Students' Voices

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Abstract

Writing qualitative research is a complex activity. Yet there is relatively little research about novices' experiences in learning to write this genre. The purpose of this multiple case study is to explore the challenges students face when they first encounter the qualitative research paradigm. Drawing upon interviews with students, think-aloud protocols, class observations, and students' written artifacts, this article reveals that major problems new students have include: understanding the qualitative research paradigm, especially the concepts of validity and subjectivity, determining how to carry out a systematic data analysis, becoming familiar with genre knowledge of presenting qualitative findings, and meanwhile, expanding their disciplinary knowledge. Pedagogical implications are also discussed to help student researchers learn better.

Keywords: research writing, student researchers, subjectivity, interpretation, argumentative writing

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Doctoral students, especially in education-related areas, often need to conduct qualitative research and to document their research in writing. Learning inquiry-oriented writing is an experience in itself (Prior, 1991, 1994, 1995; Riazi, 1997); adding qualitative research on top of that makes for a particularly challenging time of learning, reflection, and practice (Meloy, 1994). Students may already have experience in writing journals, stories, reflections, literature reviews, and even quantitative research reports, but writing from qualitative data is often a brand new genre for them.

The overarching research question is: What are doctoral students' challenges in learning to write in the context of their first graduate seminar on qualitative research methodology? Drawing upon the writing and reflections-on-writing of four doctoral students in their first qualitative research course, I was able to find out that students' major problems include: understanding the qualitative research paradigm, analyzing data, developing the focus of the paper, learning the genre of qualitative research reports, and building up disciplinary knowledge.

I chose four doctoral students who were new to qualitative research. This is the group of learners who might encounter the most barriers and need the most social support. Unless we, as methodology instructors, have been teaching courses in qualitative methodology for some time and have been actively studying our students' efforts, we are unlikely to know well the perceptions and prejudices of our students coming into our courses, the sense they make of the methodologies we teach them, the trials they face while learning to do the work, and the struggles they engage in while writing up their results. That is why I want to illuminate the challenges students encounter as they learn how to express their nascent qualitative research findings in text.

Literature Review

A close inspection of books on qualitative research methods (Creswell, 1998; Denzin, 1994; Spradley, 1979; Strauss, 1987; Tesch, 1990; Wolcott, 1990; Yin, 1994) yields almost nothing on the experiences of students as they first encounter this research paradigm. Pietersen (2002) explored the experiences of learning qualitative research but did not address the writing part. Cotner, Intrator, Keleman, and Sato (2000) and Li and Seale (2007) did studies on graduate students' experiences in learning to do qualitative research. Again, they did not include the writing process. Becker (2009) discussed recent progress of the National Science Foundation's promoting of qualitative research. The National Science Foundation focuses on some paradigmatic issues, but it does not focus on the learners' experiences.

The few studies (Belcher & Hirvela, 2005; Ely, Anzul, Friedman, Garner, & Steinmetz, 1991; Ely, Vinz, Downing, & Anzul, 1997; Mehra, 2002; Meloy, 1994) on learners' writing experiences indicate that even those who normally view themselves as skilled writers still find qualitative research writing challenging because of the verbal nature of the research methodology, the "fuzzy genre" (Medway, 2002, p. 14) of qualitative research reports, and the complexity and diversity of the research experiences and approaches.

The studies of Belcher and Hirvela (2005), Ely et al. (1991), Ely et al. (1997), and Meloy (1994) are the pioneering research about experiences in writing qualitative papers. Their studies reveal the complex intellectual and emotional tensions that exist in the fuzzy qualitative research writing genre. Their evocative focus on what it means and what it feels like enlightened me on the necessity of focusing on students' voices and narrations about their writing experiences.

Further complicating qualitative research writing is the fuzziness of its genre (Belcher & Hirvela, 2005). A "fuzzy genre" is one that may have "many modes of realization" (Medway, 2002, p.14).

There is no fixed form for reporting qualitative findings. It depends on the researcher's intellectual analytic abilities, intuitive creativity, and specific research situations. Because of its relative newness and the limited research on it, this genre is "not well-defined" (Belcher & Hirvela, 2005, p.187) yet.

By using her correspondence with twenty different dissertation writers, Meloy (1994) revealed the narrative experiences of fledgling qualitative researchers. The enormous diversity of experiences and approaches contained under the rubric of qualitative research indicates that there is no neat format to analyze and present data. This lack of a neat analyzing and presenting format supports Belcher and Hirvela's (2005) definition of the qualitative report as a fuzzy genre, which could lead to uncertainties and anxieties for students who first encounter it.

Ely et al.'s (1991) book, *Doing Qualitative Research: Circles Within Circles*, is the most comprehensive research thus far on "the struggles and questions, the insights and visions" (p. 1) of students and established researchers learning to conduct and write qualitative research. Their research was concerned with the interplay between affect and cognition: how people feel and what they learn.

An important study by Li and Searle (2007) explored students' experiences of learning to do qualitative data analysis. They discovered that major struggles in data analysis include: where to start with coding, failure to distinguish researcher and actor categories, and over-interpretation of evidence. Li and Searle's (2007) study makes the usually opaque process of data analysis visible for novice researchers.

Methodology

This is a multiple case study. I selected two American students who are native speakers of English and two Asian students who are non-native speakers of English. I documented what the participants said and what their writing products displayed about the difficulties they had in learning this new type of genre. The four participants were attending a doctoral seminar, entitled *Qualitative Techniques for Education*, which is one of the introductory research methodology classes that intends to prepare doctoral students for doing qualitative research. To that end, the professor gave the students three writing assignments: (a) an interview case study, (b) a critique, and (c) a field study.

The method I used to select my focal participants is purposeful sampling (Creswell, 1998). I employed "maximum variation" (Creswell, 1998; Miles & Huberman, 1994; Patton, 2002) as a strategy to represent diverse cases to identify the common patterns of challenges encountered in the cases. I included students from different disciplinary areas, with different epistemological paradigms and different gender and ethnic backgrounds. The four participants' characteristics are provided in the following table (all names are pseudonyms):

Table 1

Participants' Profiles

Name	Gender	Ethnicity	Major	Doctoral Status	Master's Field
Marlene	Female	Euro- American	Reading Ed.	1 st year	English Ed.
Tina	Female	Euro- American	Music Ed.	1 st year	Curriculum Technology
Mila	Female	Korean	TESOL	1 st year	TESOL
Hippo	Male	Taiwanese	Psychology	2 nd year	Educational Psychology

Note. TESOL is the abbreviation of Teaching English as a Second Language.

Ethical procedures were followed throughout the study. Before the study started, the participants signed a consent form in which all the details of the ethical issues were explained. The consent form provided the information participants needed to know in order to make a good decision about study participation. Major ethical procedures included: (a) participants are informed of what they are supposed to do in the study, (b) pseudonyms are used in all written and published data, and (c) participation is voluntary.

My primary data sources are interviews with my focal students, students' think-aloud protocols, and students' writing products. I conducted four interviews with each participant (see Appendix A for interview guide). Each time the participants received feedback from the professor about their writing assignments, I did retrospective interviews (Smagorinsky, 1994) with them. Retrospective interviews probe into events or processes that have already happened in the past. The interview questions focused on the challenges the students had in the writing process. All interviews were audio-taped and transcribed. In addition, I asked each participant to do think-aloud (see Appendix B) while they were working on the writing assignments. Think-aloud is a data collection method often used in psychology. It requires participants to speak aloud what is going on in their mind. In my case, I asked students to talk to a tape recorder about ideas in their mind while they were writing.

Findings

In this section, I present the major challenges faced by the focal student researchers. Although these challenges were based on four students, they might shed light on the patterns of difficulties novice researchers encounter. Themes of the challenges include: (a) new students may question the very validity of qualitative research; (b) new students need to practice a step-by-step procedure in analyzing qualitative data; (c) new students need to learn to present findings argumentatively; and (d) new students need to build up disciplinary knowledge.

New Students May Question the Very Validity of Qualitative Research

The major struggle students had was to understand the notion of "subjectivity." In their eyes, research data that is based on informants' opinions is too "subjective." For example, Mila said: "From one person, it's impossible to get good data. That's what I thought. It's hard to make my argument valid. It takes very personal interpretation" (Mila, Fourth interview). She had doubts

about the validity of the informant's opinions. Hippo was not sure if the verbal data could have the same supporting function as the statistical analysis did: "For the qualitative research, I am wondering how you can still publish, or still say that you did learn something which is meaningful" (Hippo, First interview). Hippo shared Mila's belief that significant knowledge cannot be made through interpreting one or two persons' worldviews.

In addition, some participants also felt uncomfortable with bringing themselves into the interpretation of the meaning. They were concerned that involving the researchers' perspective in interpreting data would make their interpretation too subjective. As Hippo said, "When I was writing the interpretation, I was concerned about how much interpretation I should put there. When I am writing interpretation, I want to find support. Do I have enough support? So I am careful not to interpret too much" (Hippo, Fourth interview). Hippo had not understood that meaningful knowledge can be constructed in a way that provides room for personal and subjective ways of looking at the world (Mehra, 2002).

Both Mila and Hippo's cases indicate that beginning qualitative researchers might struggle with the notion that qualitative research allows for an interpretation that comes out of the reality of the researcher (Mehra, 2002). They more often were somewhat used to the positivistic view of knowing which emphasizes the value-free nature of science and knowledge construction. Therefore it concerns them when they see that their self constantly influences the process of constructing meaning. Novice qualitative researchers have to learn to walk the "thin line between maintaining value-neutrality and making sense of subjective worldviews" (Mehra, 2002, Conclusion section, para. 1). Understanding the role of self in interpreting data is one of the biggest challenges for new students.

New Students Need to Practice a Step-by-Step Procedure in Analyzing Qualitative Data

All my focal students agreed that analyzing data was the most difficult process. One participant said: "Data analysis is the hardest part. If I were good at data analysis, then writing would be a lot easier" (Mila, Second interview). The process of analyzing qualitative data was still very opaque for them. Tina, for example, felt that she needed inspiration to present her findings: "I need inspiration to write these. I don't really know how you are supposed to go from your data to the paper. It just happens to you instead of, you know—in statistical analysis, you followed the steps" (Tina, Fourth interview).

Tina thought that in contrast to statistical analysis, analyzing interview data or field notes was very subjective and did not have a step-by-step procedure to follow. She stated: "I think it's [writing qualitative research] kind of individual; it's your own way of how to do it. I couldn't tell someone else how to do it necessarily" (Tina, Fourth interview). How to make the student researchers feel confident that they were following a scientific procedure in analyzing data was still a big challenge.

One common mistake student researchers made was to rush to categories and themes from raw data without a systematic and thorough analysis. They simplified transcribing and coding processes because they did not know how to do it: "I don't know how to start the categories. When I listened to data, I just made categories. ... I think my mistake is that I should have put a lot more time analyzing data before I wrote" (Mila, Third interview). Hippo expressed his doubts about transcribing:

Maybe sometimes if you are spending too much time on the transcripts, you think you are wasting your time. Sometimes you think you can just listen to the tapes and pick up the

themes and just do the transcript for that specific section. But sometimes even if you do that, you still have no clue of what or where is the most important part. So that's kind of back and forth, back and forth. (Hippo, Second interview)

One particular challenge the students met in data analysis was the lack of a theoretical framework with which to start. Even though a conceptual framework is frequently iterated over the life of the study (Huberman & Miles, 1994), having a conceptual framework with key factors, constructs, and the presumed relationships could always provide a theoretical platform with which to begin the analytic process. What the new students lacked is such a conceptual framework to guide their data analysis. This might be attributed to the fact that they are still new to their research field. As Tina said, "Coming up with the idea of how I was going to analyze the data, the framework thing was hard" (Tina, Fourth interview). Facing two sets of divergent data, Tina did a lot of library research and finally found a theoretical model that she could use to guide her analysis.

How to develop focus and organization from their nascent findings proved to be challenging for the students. The nascent findings, that is, the initial categories and themes, are often spread out. Researchers need to analyze them and reduce them to the key themes that can address the research questions most relevantly. As one participant noted, "The hard part is trying to organize. Once I figured out how to organize, it's not that difficult" (Tina, Fourth interview). Hippo also expressed his difficulties: "I really don't know where to start. I have pieces of ideas here and there, but it doesn't seem complete enough to form a paper. I haven't really systemized or organized them well in my mind at the time when I was trying to write it" (Hippo, Second interview). Similarly, another participant stated: "I feel the organization can be a little tricky especially for the type of writing that I am not familiar with" (Marlene, Second think-aloud). Mila, Hippo, Tina, and Marlene were not alone in their struggles of data analysis. Novice writers in Ely et al. (1991), Ely et al. (1997), Meloy (1994), and Strauss (1987) also expressed the similar "despair of their own capacities for doing the data analysis" (Strauss, p. xiii).

New Students Need to Learn to Present Findings Argumentatively

Qualitative research writing is essentially an argumentative genre. But on first impression, the description in qualitative research writing might prevent novices from noticing its argumentative nature. As Tina noted, "It seems like there is a lot of more in-depth description of one person or a couple of persons. It's more descriptive" (Tina, First interview). Mila said: "It is like writing a story or a novel. ... I am not familiar with this form of writing. If I write like a diary, then it is not a research paper. So I am thinking what genre I should use" (Mila, First think-aloud). Mila's words indicate new students' bewilderment when they first encounter qualitative research reporting. Discourse features, such as thick description, detailed narratives, expressive interpretations, vivid metaphors, and strong personal voices, often make new students neglect its argumentative and persuasive nature.

Lack of an explicit argument.

The study indicates that the common mistakes students make include the lack of an explicit argument, the lack of strong claims before offering the quotations, and the lack of sufficient interpretation after the quotations. One participant explained: "I didn't know what the theme was, what the argument was, or what the claim was. I still don't know the differences between theme and argument" (Mila, Third interview). The statement of an argument is often missing in students' writing. Mila did not know that she was supposed to make a statement about her major findings in the introduction. She merely repeated the research question.

Tina made a similar comment: "When you asked me 'where is my argument,' I said, 'I don't know, I need to look for it.' I don't really know what my argument is. I need to improve on it, a clear argument" (Tina, Fourth interview). Hippo specifically talked with the professor after class about what the argument and the themes are, and as he expressed, "I feel like I have to talk with someone about my research. I am a little confused with the argument and the themes" (Hippo, Second think-aloud). Marlene, the most experienced writer, also said: "I know I did this wrong, rather than stating an argument, I am kind of exploring, rather than arguing something" (Marlene, Second interview). In whatever style they write, there has to be an explicit argument, which novice research writers often fail to provide.

Lack of strong claims.

All the students struggled with writing a strong claim before they offered evidence. They were not sure about the definition and features of a strong claim. Tina said: "I want to know what a strong claim looks like. ... I was just kind of writing a little introduction to the quote. That might not be specific. That is the area I might need to improve," and she explained further, "I have to talk to him [the professor] and find out what exactly it is that makes the claims stronger or weaker because I don't see the difference between the weak ones and the strong ones" (Tina, Fourth interview). Similarly, Mila said: "Sometimes I think that's my claim, but the professor doesn't think that's a claim. What [are claims] like?" (Mila, Second interview). Marlene, in contrast, used interview questions instead of claims to guide the presentation of evidence. The professor said that it read more like a magazine interview than a research paper. The pattern she used was, "I ask Jessica this, and she responded this way" (Marlene, Second interview). Here is an excerpt from Marlene's case study:

When asked how diversity exists in her school, Jessica eventually responded, "Academically, in some classes, it's either they're high or they're low in academics and some are in between. Sports-wise, there are a lot of kids who play sports, and then there are people who don't." (Marlene, Case study paper)

In this instance Marlene merely presented an interview question and an answer. This was simply stating a fact, not writing research. She was not persuading readers of her claim. A research writer needs to tell readers first what the data means and then provide the evidence to support it. An interview question cannot replace a claim. A claim is a small piece of proposition that creates a new idea. Readers need to know the claim first. It is not that Marlene did not know how to make sense out of the evidence, because she usually formulated sufficient interpretation after she offered quotations. Her problem was in not realizing that she needed to make her point more explicit for her readers and that she needed to make it earlier.

Lack of interpretation.

Another genre component that was challenging for the participants to master was developing an interpretation. As Denzin (1994) pointed out, "In the social sciences there is only interpretation. Nothing speaks for itself" (p. 500). It was a recurring characteristic of the students' writing products that the interpretation section was either missing or insufficiently developed. Mila reported: "I didn't connect literature to the finding. I didn't know that. I had literature review. But I didn't put it [literature] in the findings" (Mila, Third Interview). As Tina also explained, "It seemed to me that the quote really explained itself. So I felt like I didn't need anything. …To me that quote was clear. To me everybody would interpret the same way as I think. But maybe we just can't expect readers to know it" (Tina, Third interview). Hippo had a similar comment: "I thought readers would naturally understand what I am saying" (Hippo, Fourth interview).

Even though the teacher made comments in the margins, such as "Connect this to literature" and "Think about how to develop the interpretation more," students still felt confused. Hippo's strategy was simply to repeat what he had already written: "I felt I was simply repeating myself" (Hippo, Third interview). Hippo felt that he did not possess sufficient disciplinary knowledge needed to connect what he found to the larger theoretical context. The lack of a solid theoretical background affects students' interpretation of data (Glesne, 1998).

In order to convince readers of their arguments, student writers must learn to provide explicit arguments, strong claims, convincing examples, and sufficient interpretations of the data. All of the students were learning to write argumentatively in this seminar.

New Students Need to Build Up Disciplinary Knowledge

Another challenge that all participants encountered was a lack of disciplinary knowledge. Lack of knowledge about a topic causes difficulties for novice writers (Hayes & Flower, 1987). Qualitative research writing is essentially an interpretive endeavor (Denzin, 1994). Researchers' theoretical knowledge and perspectives directly affect how they make sense of the data. It requires a sound knowledge of theoretical traditions and perspectives in making solid interpretations. As first- or second-year doctoral students, they had not built up enough disciplinary or theoretical knowledge to make good sense of the data and connect it to a broader theoretical context. Hippo's words indicated that his lack of disciplinary knowledge affects his ability to make interpretations:

I really don't know what else I can say. That's the most that I could squeeze out of my head. ... Maybe because I am still very new in this field. For example, if you are new in the fashion, and your friend has a new coat, you can only say, "It's nice-looking." But if you have been in the fashion for a long time, you could comment on things like texture, style, its match with his personality, etc. (Hippo, Third interview)

Marlene, the most experienced writer of the four, also commented on her fear of not knowing enough about her field: "That's one of the things that I was really afraid about when I started this program because I don't have research background. I don't know the references. I don't know what Bakhtin says" (Marlene, Third interview). Marlene and Hippo are not alone in this struggle. Riazi (1997) has also shown the constraining effect of insufficient knowledge of subject matter on students' disciplinary writing.

Disciplinary knowledge also includes students' practical knowledge of their fields. The more professional experience they had in their fields, the easier it was to learn to conduct and write qualitative research. For example, both Marlene and Tina had been very experienced K-12 teachers. Their rich teaching experiences helped them frame their studies, ask questions, and interpret the data. Both Marlene and Tina knew very clearly from the beginning what they wanted to look for in the inquiry on the basis of their teaching experiences. By contrast, Mila and Hippo had rarely worked in their fields and thus they had not accumulated as much professional knowledge as Marlene and Tina. This lack of professional knowledge of their fields also posed more challenges in framing their research and interpreting data.

Suggestions for Student Researchers and Mentors

Now that I have explored the challenges encountered by novice researchers, how can I help them become good qualitative research writers? In my opinion, students need to better understand the

research paradigm. They need more guided and mentored practices. They need to read more qualitative research.

Better Understanding of the Research Paradigm

First of all, students need to better understand the epistemological conventions of qualitative inquiry. An effective way is to read classic articles and books on the qualitative research paradigm. Seeking consultation with mentors, showing experts their early draft of data analysis, talking through their problems, and studying the analysis of verbal data by expert researchers also would help students.

More Guided and Mentored Practices

Students benefit enormously from following explicit models, reflecting on feedback on their writing, and talking regularly about writing in class. Teachers can implement explicit data-analysis strategy training. As Mila said, "I hope in class I could learn how to analyze data more specifically, or with examples. That would be easier" (Mila, Second interview). Marlene expressed the same concern:

This is the first semester of a doctoral student. I need somebody to tell me, this is how you write this kind of paper. Because if I don't learn, if I am not taught explicitly, then how might I gonna know? Then my feelings are gonna be all hurt when I got a bad grade. (Marlene, Third interview)

Data analysis is a covert process that is not explicitly shown in students' final writing products. Therefore it is hard for professors to trace how students approach data analysis. To solve this problem, professors and students can make this process more transparent to increase the visibility of data analysis approaches and tactics, so that students can see how experts analyze qualitative data and professors can see more clearly what types of help students need.

In terms of teaching genre features, teachers can explain them in relation to other genres that students are already familiar with. Students usually possess some knowledge of other genres, such as journals, reflection papers, and literature reviews. They naturally fall back on the previous genre knowledge to construct the new one. Therefore, teachers could consciously compare and contrast the discourse structure of qualitative research with structures students already know so that students may obtain a clearer idea of the unique features of qualitative discourse.

More Reading

Student researchers need to read more qualitative research. Reading helps students learn the discourse structures and increases their disciplinary knowledge. Participants indicated their interest in reading more: "When I write, I am going to look up the sample papers a lot. I may follow some structures and phrases they used" (Mila, First interview); "I will read more qualitative articles and see what other people have done" (Tina, First interview); "The sample papers helped me in terms of the structure" (Hippo, Fourth interview). Specifically, Hippo believed that modeling after a sample paper helped him learn: "The way I learn, is to mimic, imitate, to follow step by step of specific principle" (Hippo, Second interview).

Reading also helps broaden disciplinary knowledge. Marlene said:

As I read more research, especially having the background to be able to talk about what other researchers say and what other researchers write, that's invaluable. That's one of the things that I was really afraid about when I started this program because I don't have research background. I don't know the references. I don't know what Bakhtin says. But I am getting there now. So it's like a foundation. Now I guess I have the schema to be able to talk about things and it's making my writing better. (Marlene, Third interview)

Summary

Drawing upon interviews with students, think-aloud protocols, class observations, and students' written artifacts, this article reveals that major problems students have mainly consist of understanding the qualitative research paradigm, especially the concepts of validity and subjectivity, understanding how to carry out a systematic data analysis, becoming familiar with genre knowledge of presenting qualitative findings, and meanwhile, expanding their disciplinary knowledge. Suggestions for mentors and students include facilitating a better understanding of the research paradigm, providing more guided and mentored practices, and reading more qualitative research.

Implications for Further Research

Further research is needed for an in-depth investigation into the relation between novices' understanding of qualitative research as a research paradigm and the way they write. For example, the students usually had mixed feelings about the interpretation section. On the one hand, they enjoyed the creative and personal expression; on the other hand, they might feel guarded and hesitant towards it. It may be interesting to further explore student writers' perspectives on the nature of interpretation, subjectivity, and other related concepts in qualitative research. Second, the study indicates that data analysis and organizing findings are very challenging processes for students. Further research needs to explore more specifically student writers' attitudes, difficulties, and strategies in approaching data analysis and developing organization of their nascent findings.

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Appendix A

Interview Protocol: Interview with Students

First interview

- 1. How old are you?
- 2. Could you tell me about your educational background?
- 3. Could you tell me about your work experience, if any?
- 4. How would you say about yourself as a writer?
- 5. What kinds of writing do you usually do?
- 6. What kinds of problems, if any, do you usually have in writing?
- 7. What kinds of strategies, if any, do you usually adopt in writing?
- 8. What do you think of the professor's idea of finding a writing buddy?
- 9. What do you think the role of writing is in your learning?
- 10. How much do you know about qualitative research?
- 11. Why do you take this qualitative seminar?
- 12. Did I miss anything that you want to tell me?

Second interview: Case study

- 13. Why did you choose this topic?
- 14. Did you talk with the professor about the case study paper after class? If so, what did you talk about?
- 15. Let's go through his comments. What do you think about his comments?
- 16. What kinds of differences, if any, do you see between the case study and other writing you have done?
- 17. Which part(s) are hard for you in writing the case study?
- 18. What kinds of persons or activities helped you write the case study?
- 19. What do you think about the professor's help with your writing?
- 20. What's your understanding of the structure: argument, theme, claim, and interpretation?
- 21. Are you going to revise the paper? If no, why not?
- 22. (If revised), why did you make those changes?
- 23. What kinds of things have you learned through writing the case study?

Third interview: Critique

- 24. How is your case study revision going?
- 25. Is this the first critique you have ever written?
- 26. Let's go through the professor's comments. What do you think about them?
- 27. What kinds of differences, if any, do you see between the critique and other writing you have done?
- 28. Which part(s) are hard for you in writing the critique?
- 29. Could you talk about the improvement you have made compared to your last writing assignment?
- 30. What kinds of persons or activities helped you learn to write qualitative research?
- 31. Could you talk about your learning experience of writing qualitative research so far?

Fourth interview: Field study/Comparative case study

- 32. Why did you choose this topic?
- 33. Which part(s) are hard for you in writing the field study?
- 34. How did you come up with the themes?
- 35. What kinds of problems or confusions do you still have?
- 36. What kinds of improvement have you made compared to the last writing assignment?
- 37. What kinds of things become clearer to you in terms of writing?
- 38. What do you think about the role of reading assignments in your writing?
- 39. What kinds of advice would you give to other rookie doctoral students in terms of writing qualitative studies?
- 40. What kinds of people and activities helped you learn to write?

Appendix B

Think-Aloud Protocol

You are asked to do two things while you are writing:

- 1. Think aloud during the whole writing process.
 - Leave the tape-recorder on all the time while you are writing. Talk to the tape-recorder about ANY thoughts or ideas going on in your mind and things or activities you are doing relevant to writing.
- 2. After you finish writing each paragraph (or each page or each section, whichever you prefer), you are asked to stop for a couple of minutes to answer the following questions:
 - 1) Have you expressed what you wanted to express in this previous paragraph (or page or section)? If not, what are the things that you couldn't express well?
 - 2) What kinds of problems or concerns, if at all, did you have while you were writing that paragraph (or page or section)? How did you solve them?

Notes:

Please keep all drafts and notes (if you have any) and bring them to me. When you are talking to the tape-recorder, English is preferred. But if you feel more natural speaking in your home language, that's OK too. Thank you for your commitment!