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A Grounded Theory of Inductive Qualitative Research Education: Results of a Meta-Data-Analysis

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Abstract

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Keywords

Qualitative Research, Student Experience, Learning, Systematic Review, Meta-Analysis, Constructivist Grounded Theory

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A Grounded Theory of Inductive Qualitative Research Education: Results of a Meta-Data-Analysis

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This paper reports on the first stage of a meta-study conducted by the authors on primary research published during the last thirty years that focused on discovering the experiences of students learning qualitative research. The authors carried out a meta-analysis of the findings of students' experiences learning qualitative research included in twenty-five published articles. Using constructivist grounded theory to analyze the experience of those seeking to learn qualitative research, including factors that appear to support or interfere with their learning experiences, the authors identified three key dimensions of qualitative research students' learning experiences— affective, cognitive, and experiential. Based on this analysis, the authors developed a grounded theory of qualitative research education. This theory suggests that students' learning experiences will be enhanced through the implementation of an inductive approach to qualitative research education that incorporates experiential learning early in the learning experience. This paper reports these findings, presents this grounded theory of inductive qualitative research education, and discusses the implications of the findings of this meta-analysis for those teaching and researching qualitative research. Keywords: Qualitative Research, Student Experience, Learning, Systematic Review, Meta-Analysis, Constructivist Grounded Theory

The teaching and learning of qualitative research has grown considerably over the last thirty years, and researchers have begun to study how this process occurs (Hurworth, 2008; Josselson, Lieblich, & McAdams, 2003; Minichiello & Kottler, 2009). In reflecting on how students learn qualitative research, researchers have identified challenges and solutions for improving this educational endeavor (Mitchell, Friesen, Friesen, & Rose, 2007). In addition to investigating the learning process as it relates to qualitative research, primary researchers have begun to explore students' experiences of learning qualitative research (e.g., Hein, 2004; Hunt, Mehta, & Chan, 2009; Pratt & Dolbin-MacNab, 2003). Despite this growing body of scholarship, no investigator has conducted a systematic review of this literature to determine what patterns may be perceived as to methods being employed, concepts being utilized, and findings being produced. To add value to this emerging body of research, it would be important to synthesize the methods, theoretical orientations, and results of these primary investigations so faculty, students, and researchers can learn from the past in order to inform practice and research of today and tomorrow. To address this gap, the investigators conducted a meta-study (Paterson, Thorne, Canam, & Jillings, 2001) on primary research published during the last thirty years that focused on discovering the experiences of students learning qualitative research.

The goals of the meta-study were (a) to develop a framework for studying students' experiences learning qualitative research; (b) to critique the research methods used to study qualitative research students' learning experiences; (c) to identify problems with primary research on students' experiences learning qualitative research; (d) to prescribe solutions for addressing any such problems; and (e) to create an integrated body of knowledge related to students' experiences learning qualitative research. The meta-study included several phases of research, including a meta-data-analysis of the results from the previous published primary research sources; a meta-method analysis of the methodologies and procedures used in the previous published primary research sources; a meta-theory analysis of the theoretical frameworks and conceptualization utilized in the previous published primary research sources; and a meta-synthesis of the results from the meta-data-analysis, meta-method analysis, and the meta-theory analysis to determine patterns between the results produced, the methodologies employed, and the theoretical orientations engaged. This paper reports on the first stage of the meta-study process, a meta-data-analysis of published findings of students' experiences learning qualitative research.

The inspiration for this study came out of the personal experiences of the first two authors as teachers of qualitative research courses and discussions we have had regarding how to improve the learning experiences for our students. The second author previously conducted a systematic review of the research literature regarding clients' experiences of their conjoint marital and family therapy (Chenail, St. George, Wulff, Duffy, Wilson Scott, & Tomm, 2012), and we felt this research method would be well suited to discovering the nature of qualitative research students' learning experiences and developing new knowledge that would be of benefit to faculty, students, and researchers.

Method

Research Design

The research question guiding our study was: "What are the learning experiences of qualitative research students as reported by researchers in their primary research studies?" In seeking to gain a better understanding of researchers' findings regarding qualitative research students' learning experiences, we chose to bring a qualitative approach to our study due to our specific research objectives. Our goal was to explore published research accounts of the lived experiences of qualitative research students. We did not hope to provide descriptive statistical findings on this subject, but rather to discover how researchers have presented qualitative research students' descriptions of their experiences of learning this research paradigm in their own words, and to interpret the meaning that they find in this learning experience. Thus, a qualitative approach aligned with our research orientation.

Having established that we would take a qualitative approach to our study, we also considered various types of qualitative studies. Again, our choice of design was governed by our research goals. As indicated above, we sought to look across a body of primary research studies for the purpose of aggregating findings in order to identify represented themes that reflect this body of findings, and to discover reported challenges encountered by students in learning qualitative research for the purpose of developing

potential solutions to those challenges. These research goals required a study that took a broader perspective than a single primary research study focused in a particular site. Thus, we felt a systematic review of the literature would be most beneficial design for our study.

A systematic review can be contrasted with a narrative summary, such as might be included in any research report, in that it includes an explicit, transparent design process. As noted by Littell, Corcoran, and Pillai (2008), “Systematic methods impose discipline on the review process” (p. 10). These authors observe that “systematic reviews and meta-analysis are becoming more widely used in the social sciences, especially in psychology and education...” (Littell et al., p. 4). One benefit of systematic reviews over traditional literature reviews is that the application of scientific principles and procedures to the review process results in more rigorous design and reliable conclusions. In this sense, the systematic review design “is less of a discussion of the literature, and more of a scientific tool...” (Pettigrew & Roberts, 2006, p. 10). Another benefit to the systematic review is that it provides a research design for both summarizing the evidence related to a specific research topic and providing evidence-based information to inform practice and future research. In addition, as Pettigrew and Roberts point out, “It is important to be able to tell the difference between real and assumed knowledge, and systematic reviews can help us to tell which is which” (p. 2). As we hoped to enhance the learning experiences of qualitative research students, we felt a systematic review would be an appropriate research design for sorting out what the research evidence shows regarding students’ learning experiences from what those teaching qualitative research courses might assume that experience to be.

Researchers make a distinction between systematic review as a design and meta-analysis as the methodology used in such designs, and the term *meta-analysis* is typically reserved for a statistical summary of evidence produced through the systematic review design (Littell et al., 2008; Pettigrew & Roberts, 2006). However, a systematic review can address not only quantitative data, such as that measuring effectiveness of outcomes, but also may assess causes of problems and people’s experiences through analysis of qualitative data. As this was our focus for this systematic review design, we looked to a methodology designed for managing and analyzing qualitative data, namely, the meta-study methodology outlined by Paterson, Thorne, Canam, and Jillings (2001). Their meta-study model was developed out of their desire to investigate “the insider experience of chronic illness” (p. xi). As we, too, were interested in exploring “the insider experience”—in this case, that of qualitative research students—we felt we could adapt their model for our purposes. Likewise, where Paterson et al. use this methodology to develop theory and provide direction for clinical practice and policy development, we saw an opportunity to apply this method to develop theory for pedagogical practice and curricular development.

The meta-study is made up of several stages of analysis: meta-data-analysis, meta-method, and meta-theory, leading to meta-synthesis of new knowledge constructed through these analytical stages. Thus, this model differentiates between meta-analysis and meta-synthesis. In this paper, we discuss the first phase of the meta-study analytical process—meta-data-analysis, which is both aggregative and interpretive (Paterson et al., 2001).

Sample

In order to identify an appropriate sample for this study, we took the following steps. Ron first retrieved primary research in which the investigators have explored students' experiences learning qualitative research by (a) searching Teaching and Learning Qualitative Research and Qualitative Research Design Resources, a publicly accessible database located on the internet at http://www.nova.edu/ssss/QR/Teaching_042610.pdf; (b) searching digital databases such as ProQuest, ERIC, and Google Scholar; (c) scanning references from previously retrieved publications; and (d) scanning candidate journal tables of contents. Ron and Robin then screened the collected primary resources to ensure compliance with the study's inclusion and exclusion criteria. In order to meet our research objectives, we defined the inclusion criteria for this study as previously published studies in which investigators sought to discover students' experiences learning qualitative research. Previously published studies whose authors did not include direct evidence in support of students' experiences learning qualitative research in their findings were excluded from our sample.

Ultimately, we identified 25 published articles that met our inclusion criteria. These articles reflected a variety of types of articles; some were written as traditional research reports, while others were written as reflective essays. Some of the papers were on teaching qualitative research in general; others focused on teaching a specific qualitative methodology. Another variation among the papers was that some were written by learners, some by teachers, and some by researchers. In every case, the final decision about whether or not to include a candidate article was determined by whether or not the student's perspective was represented in the paper; if the findings presented the teacher's perspective only regarding student learning we did not include the article.

Data Collection

We collected the data for this study in accordance with the meta-study design of the research. First, we conducted an appraisal of the candidate articles, using the Primary Research Appraisal Tool (Paterson et al., pp. 135-139), modified slightly for our focus on students' experiences rather than clinical research (see Appendix). The appraisals were conducted primarily by Robin, with assistance from Ron and three graduate students in the Qualitative Research Graduate Certificate Program at Nova Southeastern University (see Acknowledgement). This step served two purposes; not only did the appraisal process assist us in determining the final sample for the study, but it also provided us a helpful mechanism for identifying key information needed for our meta-study.

A feature of the appraisal process that specifically related to the meta-data-analysis described in this paper was the extraction of findings from each included primary research study. One challenge in the data collection process was the fact that a number of the articles described a student research project, and so it was important for us to differentiate between the methods and results of the student research versus the methods and results of the investigator's research on the students' learning experiences. In addition to describing the key findings of the articles in our sample pertaining to students' experiences of learning qualitative research, we purposefully included

quotations from the students and noted the page numbers where all findings and quotes could be located. Following the conclusion of this process on each article, Robin compiled the findings from all 25 articles.

Data Analysis

As our data analysis strategy for this meta-data-analysis, we chose to employ the constructivist grounded theory approach (Charmaz, 2006), so that we could develop a theory out of our analysis that might be useful to those teaching qualitative research. In accordance with this approach to grounded theory, our steps of data analysis included initial and focused coding, axial coding, memo writing and theoretical coding, and theory construction. We describe these steps briefly below.

Initial and focused coding. In the initial stage of grounded theory data analysis, the researcher approaches the data from an open mindset, seeking to discover what concepts are revealed within the data. In the early stages of analysis, the researcher also considers the research question guiding the study and seeks to identify within the data concepts that pertain to the research objective, thus the analysis is both open and focused. Charmaz (2006) recommends using the gerund verb tense for open codes, to capture the lived experience of participants. In our meta-analysis, Robin coded the compiled findings and identified multiple open codes, for example: “handling logistics of scheduling interviews is challenging;” “learning to code and analyze requires doing it;” “feeling surprise—more to be observed than expected;” and “balancing participants’ and researcher’s voices in reporting findings.”

Axial coding. Constructivist grounded theory involves developing axial codes as the second stage of data analysis (Charmaz, 2006). Axial codes capture and reflect the relationship among related concepts identified in open and focused coding. In developing axial codes in our meta-study, Robin first noted conceptual categories and subcategories emerging from the data. For example, “learning qualitative research involves encountering ethical issues” as a category included the sub-category: “protecting confidentiality of participants.” Through constant comparison of the data, the codes, and the conceptual categories and sub-categories, Robin identified six axial codes: emotions of learning qualitative research, the role of experiential learning in learning qualitative research, learning qualitative research writing, the role of peer and professor feedback in learning qualitative research, the role of qualitative research literature in learning qualitative research, and ethics.

Memo writing and theoretical coding. Following the identification of axial codes, Charmaz (2006) describes the final stage in the coding process within constructivist grounded theory as theoretical coding, which is the selection of a code that conveys the key conceptual category around which the remaining codes can be organized. Charmaz also describes how memo writing can aid the researcher in the analysis process. In this study, memo writing proved to be very useful in both axial coding and theoretical coding. For example, reviewing the data and the stages of the coding process led Robin to develop memos regarding the experiential learning activities of students’ learning experience, as well as memos regarding the cognitive factors and the range of emotions students experienced in the learning process.

Other memos pertained to analytical insights rather than conceptual categories. For example, in one memo, Robin noted, “Students experience motivation to learn that differs from motivation of teachers: students want to learn ‘how to do it’ and how to ‘get the dissertation done.’ Teachers want them to delve into philosophical paradigm, not worry about doing it ‘right;’ but efforts to focus on deeper theoretical implications are translated by students back into practical steps because that is what they perceive as their need. In meeting this need, students also begin to see deeper implications, but if this need is not met they are frustrated.” Shorter memos included: “The more exposure to positivist paradigm the more difficult to grasp QR [Qualitative Research];” “Students find one course or semester insufficient to learn QR;” and “Students find learning by doing essential but not exclusively experiential learning—blend of learning activities works best.” Through this stage of the data analysis process, the theoretical code chosen was “experiential learning/active learning.”

Theory construction. The final stage of constructivist grounded theory data analysis is the development of a theory constructed out of the data and the interpretation of the researcher (Charmaz, 2006). Throughout the open, axial, and theoretical coding and memo writing, Robin began to form what Charmaz (2011) calls “successively more abstract, theoretical ideas” (p. 166) about the data and codes which helped her to examine the conceptual categories interactively, to compare and contrast these categories systematically, and to reason abductively in order to generate theoretical explanations about her conceptual categories. As she created her preliminary theoretical explanations, Robin used theoretical sampling by returning to the individual articles “checking these explanations” until she arrived at “the most plausible explanations to account for the findings” and to “fill out and check the properties of a tentative category” (p. 167). As Robin constructed her emergent theoretical categories, she shared these findings with Ron who in turn compared the theory and its properties with the data and codes to “assess the theory’s robustness and usefulness in analyzing the data” (p. 167).

To aid in theory development, Robin drafted a typical sequence of a student’s experience of learning qualitative research, based on the data regarding students’ learning experiences described in the study sample and encompassing the three dimensions identified: Anxiety/uncertainty... lecture / reading... cognitive dissonance / confusion... experiential learning... excitement / frustration... discovery... peer feedback... reflection... writing. Initially, we titled our grounded theory: “Skills First: An Active Learning Theory of Student Experience of Learning Qualitative Research.” As a result of further discussion and reflection, we shifted from the term “skills first,” which we felt was too prescriptive, to the notion of “inductive learning.” After a number of rounds of theory construction, we developed a theory of qualitative research education which proposes that an inductive approach, incorporating experiential learning early in the learning experience, will improve the learning experience of qualitative research students, as well as learning outcomes. We describe this theory below in the results section.

Results

Based upon our analysis of the findings included in twenty-five published articles reporting students’ experiences learning qualitative research, we suggest that the student experience of learning qualitative research is made up of three central dimensions—

experiential, affective, and cognitive—which combine to form an experience of active learning necessary to understand and practice qualitative research (see Figure 1).

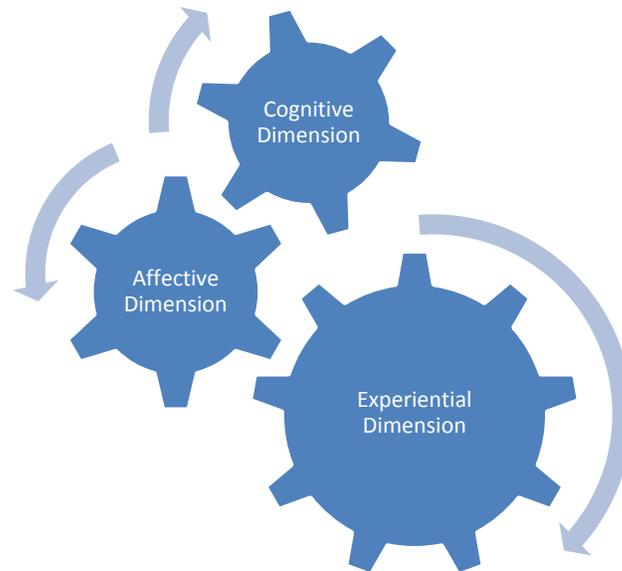


Figure 1. Interrelationship among dimensions of qualitative research students' learning experience

It appears that as students encounter both didactic and experiential learning activities, they move through a range of emotions including anxiety, frustration, excitement, and amazement, as well as several cognitive experiences such as cognitive dissonance regarding what constitutes research, critical thinking, and consideration of ethics. In the presentation of the results of our meta-data-analysis, we will first present our findings pertaining to the affective dimension of students' learning experience, followed by our findings pertaining to the cognitive and experiential dimensions of this experience. We will then present a grounded theory of qualitative research education based upon these results of this meta-analysis.

Affective Dimension of Qualitative Research Students' Learning Experiences

Student descriptions of their experience of learning qualitative research indicate that the experience encompasses multiple and varied emotions. Learning qualitative research initially seems to involve considerable anxiety for students. For some students, qualitative inquiry as a whole causes emotional distress: "The course was painful to me because I was forced out of my comfort zone where I felt knowledgeable and successful" (Richards, 2011, p. 32). For other students, specific aspects of conducting qualitative research cause anxiety. For example, the prospect of conducting a qualitative interview, which students described as "less-structured" (Harper, 2008, p. 197) can lead to anxiety about covering the topic while also responding to interviewee issues. In addition to concern regarding learning qualitative data collection skills, learners seem to experience anxiety in particular in regards to learning qualitative data analysis in general and coding

techniques in particular. As one learner noted, “It’s quite daunting...I mean I feel overwhelmed” with learning how to code (Li & Seale, 2007, p. 1446). This anxiety seems to go beyond the uncertainty felt by a student learning any new subject and to be associated with what qualitative research students perceive to be a lack of clarity about research procedures within qualitative inquiry.

The student perception that learning qualitative research means trying to understand and practice an approach to research that seems “mysterious” (Li & Seale, 2007, p. 1445) leads to emotions such as frustration and confusion. For example, qualitative research students can feel “lost...in deciding what is important to observe, as well as how to record the information” (Brandao, 2009, p. 96). Likewise, they often experience learning differing stages of qualitative coding as confusing: “I found it somewhat confusing because I did not entirely understand the focused coding aspect” (Raddon et al., 2009, p. 344). Confusion also may stem from qualitative research terminology and distinctions between methodologies: “My head is spinning trying to sort out ethnography, autoethnography, biography, autobiography, phenomenology and heuristics” (Richards, 2011, p. 8). Research students also can experience frustration with the technical issues associated with learning how to conduct qualitative interviews, for example, managing the recording device (Roulston et al., 2008, p. 235).

Learners felt that the qualitative research literature does not provide enough information on the data analysis process itself (Hein, 2004), which led them to feel a sense of isolation and uncertainty (Hunt et al., 2009). A student attempting to learn Discourse Analysis commented, “That was quite unsettling sometimes because no matter how much you read about there being no method to [Discourse Analysis], you do need, sometimes need to feel like you are doing something that is recommended or concrete and there was nothing to lean back on” (Harper, 2008, p. 203). While this student described struggling with lack of procedural guidance, others struggled with the emotional nature of some interactions with interviewees and having to manage their own emotions (Holley et al., 2007) or handle interviewees who became emotional (Roulston et al., 2003).

Although the experience of learning qualitative research reported in these studies appears to include negative emotions for many students, the experience also seems to inspire various positive emotions. Students speak of the excitement of engaging in research involving human subjects. For example, referring to learning observation, one student noted, “My first observation was positive—actually exciting...I did not intend to stay two hours, but I was so involved in watching, listening and learning that time passed quickly” (Keen, 1996, p. 169). Other students described the experience-based aspect of learning qualitative research as “stimulating,” “rewarding,” and “amazing” (Schell et al., 2009, p. 344-345). Students who are comfortable with flexibility, engagement, and creativity (Reisetter et al., 2003, p. 471) seem to find that these characteristics make learning qualitative research easier than for students who reported struggling with flexibility and creativity.

In addition to inspiring excitement in many students, learning qualitative research can seem to bring surprise to learners. Researchers reported students expressed amazement at “an incredible amount of detail that we usually ignore” when learning to conduct observations (Brandao, 2009, p. 96). Others have been surprised to learn about the institutional review board process required to protect participants in qualitative

studies. As one student observed, “The thing I learned most about and that surprised me most was the human subjects review and IRB. I never realized there was so much (red tape) involved in doing anything as simple as this” (Keen, 1996, p. 169). It appears that the experience of learning qualitative research involves encountering the unexpected both in terms of processes and research involving human subjects.

Researchers found students describe the emotions of interacting with research participants as not only surprising but also humbling. Students can find qualitative data analysis and interpretation “incredibly humbling” and may feel they need to treat information shared in qualitative interviews “with a great deal of respect and humility” (Mitchell et al., 2007, p. 235). They also refer to feeling sensitive to honoring the stories of participants in their research reports (Hunt et al., 2009, p. 131).

Overall, the researchers suggest though students face some anxiety and confusion in the process of learning qualitative research, they also seem to come to the conclusion that qualitative inquiry is “not scary” (Holley et al., 2007, p. 106). This conclusion seems to involve experiencing not only the affective dimension of learning qualitative research but also the cognitive dimension of the experience, which is described below.

Cognitive Dimension of Qualitative Research Students’ Learning Experience

From our interpretation of the results from the studies reviewed we suggest learning qualitative research appears to be in part a cognitive experience, involving learners’ expanding their view of what constitutes research, understanding the difference between quantitative and qualitative research, and reevaluating what contributes to validity in research. Some students reported it a rude awakening to discover all they had learned about research prior to their first qualitative research course “was only one possible way of conducting research” (Mitchell et al., 2007, p. 232). For some, it’s a struggle to think in a different way: “It made us move our brain cells in different directions...It was a change and it was work also, a different kind of work than we’re used to. Maybe that’s why it was also more stressful. But bottom line...it’s quite a useful experience” (Von Unger et al., 2010, p. e129). Depending upon the background of students, qualitative research may be perceived as less scientific for some learners. A medical student observed,

It’s possible to bring in a lot of personal judgment. That’s the main difference. In other seminars, we really deal with facts. There I cannot say, “Yes, but I feel that (inhales deeply), I don’t know, that this bacterium actually leads to this and that, to such and such disease, that’s my feeling and not at all what’s written in the book.” So, well, that’s how it is. You’re tied to the facts. (Von Unger, 2010, p. 128)

Through the use of humor, this student also appears to indicate a rather mocking perspective of qualitative research as associated with “feelings” and as lacking rigor and validity. This perspective seems to be rooted in the student’s prior training in a traditional, scientific model of research and a form of cognitive dissonance that some students appear to experience when learning the qualitative research paradigm. Students

with a strong background in quantitative research found learning qualitative research more difficult (e.g., Hein, 2004; Reisetter et al., 2003).

While cognitive dissonance may be a challenging feature of the cognitive dimension of the experience of learning qualitative research, we suggest there are several other features related to the cognitive dimension of this experience. For example, the experience of learning qualitative research supports the learner in developing critical thinking. Learners indicate that learning qualitative research impels them to reflect critically upon the impact of the researcher upon the research process and research findings of a study. One learner noted, “It became obvious that the structure [of an event] is created by those observing...” (Barrett, 2007, p. 428). The findings of this study included a similar sentiment:

You, as the researcher, have to be the instrument yourself and you're really forced to make sense of the data in your own meaningful way. There's no 'calculate' button to push, and I think that uncertainty makes it difficult. But I think I've learned that's exactly why it is so rich—because you are forced to really, honestly search the data, your experiences, and your intuitions to make sense of your central phenomenon. (Barrett, 2007, p. 430)

We found other studies supported this finding regarding critical reflection related to the impact of the researcher on the research process and findings, whereby students described the research as “an essential ingredient in the research” (Boardman et al., 2002, p. 99) or noted the consequences of the researcher's own actions and subjectivities (Roulston et al., 2003, pp. 650-653) upon the research process. For some students, this realization regarding the role of the researcher as the research instrument was a profound realization, as reflected in the following observation:

The burden on the researcher to explain the comparisons is significant, and the ability to connect data otherwise seems to me to underscore the importance of a human researcher. In other words, it takes a human to even come close to understand/explain a complex, social phenomenon. No model, algorithm, or formula can replace the human ability to make connections. (Pratt & Dolbin-MacNab, 2003, p. 345)

It seemed to us that the central role of the researcher as research instrument in qualitative inquiry impels critical thinking that may be a unique aspect of the experience of learning qualitative research.

Another aspect of the cognitive dimension of the learning experience involves reading qualitative research literature (e.g., seeing examples of how qualitative researchers code a text is helpful; Raddon et al., 2009). In addition we found students indicated that reading the qualitative literature is sometimes helpful and sometimes not helpful in learning qualitative research. Reading qualitative research reports can be helpful, but reading on qualitative inquiry theory can cause students to feel “a bit more lost, as it were” (Harper et al., 2008, p. 199). Students expressed that they need to read

the qualitative research literature to understand specific qualitative techniques and practices (Richards, 2011).

In addition to critical thinking and reading, the experience of learning qualitative research includes analytical development, because students encounter the need to learn how to extrapolate in qualitative data analysis (Reisetter et al., 2003, p. 471). This was described in another study (Von Unger et al., 2010) by one student in the following terms:

I thought it was good to learn to read a bit between the lines, and not only to kind of learn facts from the textbook...When I chose the quotations for the last presentation...I selected these beautiful quotations and then I sat in front of them, asking myself, 'What did the GP mean to say with THIS?' That was really a completely different kind of thinking. Not only copying and reading out loud. We had to think differently. (pp. e129-e130)

Similarly, students also appear to use cognitive skills in developing themes. As one student noted, "We experienced the great responsibility of constructing academic themes and ideas to share publicly from very personal, private stories, which provided us with a greater appreciation of the intricacies of qualitative research" (Schell et al., 2009, p. 347). Through this experience at extrapolating themes, and conducting analysis, students experience the cognitive dimension of learning qualitative research.

We also suggest two other features of the cognitive dimension of the student experience of learning qualitative research are the consideration of ethical issues, and the process of reflection. For example, students learn to become sensitive to participant vulnerability (Mitchell et al., 2007, p. 234) and also learn the complexities of protecting participant confidentiality. One student noted, "Maybe I should have emphasized that the reports would be read in the seminar by other grad students, and by [the professors]" (Boardman et al., 2002, p. 89). Consideration of ethical issues is thus an integral part of the experience of learning qualitative research. Similarly, the learning experience includes a great deal of reflection (Henderson et al., 2008). This reflection includes consideration of how the experience of learning qualitative research influences the learner's beliefs:

I came here wanting to do everything right. I wanted to see how it should be done, learn that, and do it. In almost every class I find that's almost never the expectation. I have had to dip deep to find my own opinions and bring them out of hiding. Now when I attempt something, I acknowledge what I think, take in the new information, and think about how it changes or reaffirms my beliefs. (Barrett, 2007, p. 430)

Based upon our analysis, we conclude that the cognitive dimension of learning qualitative research plays a strong role in the overall experience of the learner.

Experiential Dimension

In addition to affective and cognitive dimensions, we identified an experiential dimension to the qualitative research student's learning experience. A consistent message of learners is that they discovered they needed to learn by doing:

It showed me how qualitative research is done, but not from just reading about it. This was one of the few classes I've taken where I felt like I was actually "doing" something. What I mean by that is our class gathered the data, did the interviews and all the other steps involved in the research process. We were actively learning as opposed to passively learning. (Keen, 1996, p. 175)

Although this "learning by doing" seemed novel to some of the students, they reported gaining an appreciation of the process: "The paradox is that you have to do qualitative research to learn how to do it" (Boardman et al., 2002, p. 101) and gained an appreciation for the sometime "messiness" of the work: "I think that I've learned that the 'messiness' of learning qualitative analysis and interpretation can't be understood any other way than by doing it" (Barrett, 2007, p. 430).

In addition to referring to learning by doing in a general way, students also spoke specifically of learning taking fieldnotes by taking notes in the field (Barrett, 2007, p. 428), learning coding by coding (Harper et al., 2008, p. 202), learning interviewing by interviewing (Holley et al., 2007, p. 109), and learning how to develop themes by developing themes: "When I got seriously involved in the processes of coding and writing...I experienced an epiphany when I was able to see themes emerging from the data" (Mitchell et al., 2007, p. 233). Students also learned from transcribing; they learned that it takes longer than expected, and they learned about how to improve as an interviewer: "It's also painful seeing your own words written on the page and cringing at some of the things you've said...That's a seventeen paragraph question...and a one word answer" (Harper et al., 2008, p. 201).

Students indicated that experience-based learning helps students apply theory to practice. Students in one study reported,

I was able to apply knowledge—theoretical and practical—that I had learned in the classroom to the assignment, which is an opportunity not always presented.... Through hands-on application of the assignment, I felt immersed in this qualitative method. I feel that I have gained knowledge and understanding which would have been impossible to achieve from just completing related readings. (Schell et al., 2009, pp. 344-346)

While the following comment refers to interviewing specifically, it captures learners' sentiments about the experiential dimension of learning qualitative research overall:

You have to experience [interviewing] 'cause you can talk 'til the cows come home, but until you put a tape recorder on...you're nervous...You can only experience that; you can't read that in a book. Well, you can read

it in a book, but you can't imagine it until you do it. (Stark & Watson, 1999, p. 724)

Students consistently describe "learning by doing" as central to the experiential dimension of learning qualitative research: "I didn't really get to grips with it until, I mean I felt I had some kind of theoretical knowledge from what I'd read, but I didn't really have a sense of what you do and how you do it until I actually did it" (Harper et al., 2008, p. 199).

Another facet of the experiential dimension of this learning experience pertains to qualitative research writing. In their experience of learning qualitative research, students are exposed to a form of writing that they find different and challenging, because it deviates from the style of writing they are trained to use in other courses. It is uncomfortable for many students to learn this "new" style of writing. Participants in one study described this challenge:

You get told all the time, "You don't put 'I.'" It was so weird thinking, "Can I put this?" It was like, all the time, "Am I doing this right? Is this what I should be doing?"...Second year into your degree, and you're supposed to write in an academic way. That's what's expected of you, and all of a sudden you don't have to write like that. (Stark & Watson, 1999, p. 724)

In addition to learning how to include themselves in their writing, students experience the responsibility of capturing participants' views in their writing. A study by Boardman et al. (2002) found these aspects of the experiential dimension of learning qualitative research to be quite significant. Students described their experiences learning how to write up qualitative findings: "I thought I was trusting my data, letting it speak, but maybe at this point I'm still just in there too much...I thought I was being descriptive and perhaps I was. But it wasn't an accurate description, not really. Even matters of word choice seem to hold so much weight" (Boardman et al., 2002, p. 98). Another student noted, "Writing it up is...a complex, difficult process for me. I realize that people's good will in letting me into their ideas and experiences put me in a position of multiple responsibilities: to the feelings of my participants, to my audience, and to my own sense of what really happened" (Boardman et al., 2002, p. 99).

We propose these examples of the researchers' findings related to the experience of students learning qualitative research suggest that learning a new writing style plays a significant role in learning a new research paradigm. While students identify some challenges in learning qualitative research writing, such as determining how to include themselves and be true to participants, they also learn that in qualitative research writing, it is beneficial to start the writing process earlier rather than waiting until data analysis is complete (Wright, 2007, pp. 98-99).

Learning by doing and writing qualitative research are predominantly individual features of the experiential dimension of learning qualitative research. The studies that we reviewed also indicated that there are interactive features of this dimension as well. These interactive features include peer work (e.g., Henderson et al., 2008) and interaction with the instructor (e.g., Raddon et al., 2009, p. 345). Both of these features appear to be

characteristic of the experience of learning qualitative research. Students found peer work helpful when developing research questions (Richards, 2011, p. 23) and in the data analysis process: “Our discussion was invigorating as we bounced ideas and opinions off of one another. I believe group work helps in gaining a deeper understanding of observation....I tend to ‘jump’ at one thought—working with a group helped me to slow down and think through possibilities” (Barrett, 2007, p. 428). It appears that group work and individual work are both part of the lived experience of learning qualitative research. Finally, having the opportunity to take more than a single course also supports students in learning how to conduct qualitative research (Von Unger et al., 2010), as this provides greater experiential learning, leading to more positive emotions and increased understanding.

Summary

Based upon our meta-data-analysis of the findings of 25 primary research reports presenting findings related to the learning experience of qualitative research students, we suggest that the student experience of learning qualitative research is made up of three central and interrelated dimensions—experiential, affective, and cognitive—which combine to form an experience of active learning necessary to understand and practice qualitative research (see Figure 2).

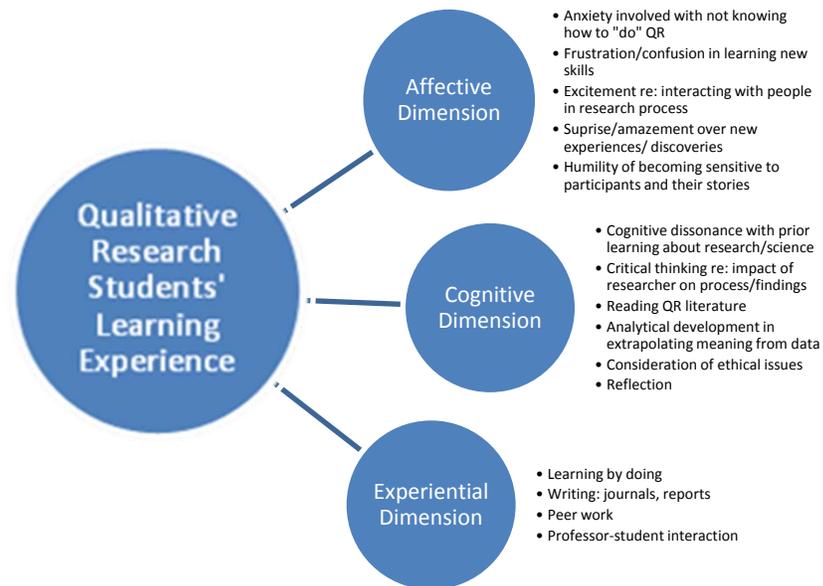


Figure 2. Interrelationship among dimensions of qualitative research students' learning experience

It appears that as students experience a combination of didactic and experiential learning activities, they move through a range of emotions including anxiety, frustration, excitement, and amazement as they seek to achieve their goal of learning “how to do it.” Learners also seem to move through cognitive experiences such as cognitive dissonance regarding what constitutes research/science, expansive thinking, critical thinking, and consideration of ethics. They find that experiential learning is critical to understanding

both the philosophical orientation and practical skills necessary to conduct qualitative research. Grounded in these findings, we have developed a theory proposing that the learning experience of qualitative research students will be enhanced through taking an inductive approach to qualitative research education by incorporating experiential learning early in the learning experience of these students. We discuss this theory further in the section below.

Discussion

In this paper we report the results of the first stage of a meta-study (Paterson et al., 2001) exploring the learning experiences of qualitative research students. A meta-data-analysis of 25 published articles on the student experience of learning qualitative research led to the development of a grounded theory of inductive qualitative research education. In this theory we suggest that students' learning experiences are enhanced by using an inductive approach to learning qualitative research, an approach which aligns with the inductive analytical approach typical to qualitative research methodologies. In qualitative inquiry, researchers typically take an inductive approach to research, approaching their data collection and data analysis processes from a discovery-oriented standpoint, as opposed to beginning their research with the goal of proving or disproving a particular hypothesis or set of hypotheses. By taking an inductive approach to teaching an inductive approach to research we suggest faculty can help their students gain an understanding from both the content being taught and the process by which the content is being presented.

As a result of the analysis described in this paper, we suggest that qualitative research students would benefit from a similarly discovery-oriented, open-minded stance as learners. Experiential learning that results in firsthand insights and skill development will support learners in grasping and conducting qualitative inquiry. Providing students with procedural/technical information they require in order to conduct qualitative data collection prior to delving into philosophical/theoretical information related to qualitative research will enhance the positive affective and cognitive experiences of learning qualitative research and minimize the negative affective and cognitive aspects of such learning. Once students have some confidence in the skills required, they will be more receptive to considering relevant theoretical aspects of learning qualitative research.

A strong theme that emerged in the articles included in our sample was that students' primary objective in studying qualitative research is to learn "how to do it" in order to be able to conduct dissertation research or to complete course assignments successfully. They want to know how to do it "right" (Barrett, 2007) and students are motivated by the perceived relevance of what they are learning while gaining the skills needed to conduct a qualitative study. Stark and Watson (1999) note, "We have found that a key factor in determining whether students will take an active part in their learning is the (perceived) direct relevance and usefulness of the subject for 'getting the dissertation done'" (p. 722). Instead of fighting this impulse, we recommend that instructors respect students' interests and focus on skills first, then expand instruction to include the philosophical and epistemological implications of qualitative inquiry.

Richards (2011) proposes that a balance of learning activities is helpful. Experiential learning helped students understand what they were reading in textbooks and increased their awareness of how they needed to develop as researchers (Brandao, 2009).

Pratt and Dolbin-MacNab (2003) differentiate between learners they describe as pragmatists, those who focus on ethics and morality and those who focus on the identity of the researcher and suggest that differing learning activities are more or less comfortable and helpful depending upon the learner's framework. Ultimately, they conclude that qualitative research courses should provide learning in a variety of modalities to both support and challenge all learners to stretch and learn. While we agree with the variety of modalities, we go farther and also suggest incorporating experiential learning at the outset of qualitative research education in order to align with the inductive approach of qualitative research and promote active, discovery-oriented learning.

Limitations

The study's inclusion criteria led to the exclusion of other available information regarding students' experiences learning qualitative research. The 25 selected articles were previously published studies that detailed these experiences. Any research done that has not been published was not analyzed as part of the study. There may be unpublished research in the field which would be relevant to the study and contraindicative of the ascertained theories. However, this research is not searchable and could not be discovered for inclusion in the project. Additionally, unpublished material may not be deemed as reliable as that which has been accepted for publication. Furthermore, there is no way to analyze their results until they are available in a published format.

Direct evidence in support of the experiences was also required for an article to meet the inclusion criteria. Published studies that seemed relevant but lacked direct evidence of the experiences were excluded. Some articles may have focused only on results without providing the evidence for their results. Although these papers may have provided valuable insights into the learning of qualitative research, we felt it was essential that we be able to link a paper's findings to direct evidence in order to determine the reliability of the conclusions of the researcher. When authors do not provide direct quotations from learners when reporting on students' learning experiences, there is no way to authenticate their results. Thus, in this meta-data-analysis, we feel our inclusion criteria supported the development of a more credible grounded theory, as it was built on direct evidence.

Additionally, we required the direct evidence be from the student's perspective. If only the teacher's perspective was described in an otherwise relevant article, the article was excluded. We understand that the teachers' points of view may be important and may provide valuable insight in the study of students' experiences learning qualitative research. However, our goal was discover ways of improving the teaching and learning of qualitative research by analyzing the students' feelings and beliefs. Only direct evidence consisting of students' direct quotes will help us achieve this goal. The teachers' opinions may be relevant but they are subject to interpretation. One teacher's interpretation may not be the same as another, and it may not be an accurate interpretation of the students' statements. Therefore, we required each of the 25 articles we chose to specifically portray the students' perspectives.

Twenty-five articles may seem like a small sample in light of the large quantity of research that has been done on the learning experiences of students in qualitative research. It is possible that other articles which met the inclusion criteria were not located

for this study. However, the sample was large enough to show thematic consistency among the studies and to achieve theoretical saturation. Also, each article reported on the learning experience of several students, so many more than 25 student experiences are represented in the findings. We do not suggest that the results of our study are suitable for statistical generalizability. Consumers of the results of this meta-study will be able to compare and contrast their experiences and findings with these synthesized findings. This case-to-case type of generalization will allow other researchers to employ analytical generalizability, a non-statistical approach, which allows investigators to identify points in common across the body of research on student's experiences learning qualitative research as well as to identify areas of difference (Chenail, 2011).

Implications

In spite of the limitations identified above, we believe this study makes an important contribution by offering results of a systematic research process. As Pettigrew and Roberts point out, "Systematic reviews also flag up areas where spurious certainty abounds. These are areas where we think we know more than we do, but where in reality there is little convincing evidence to support our beliefs" (2006, p. 2). Some might say that there exists a degree of "spurious certainty" in regards to the best approach to qualitative research education. This study provides direct evidence on which educators can make more informed choices in the design and implementation of instructional strategies.

These choices will yield results that will help future students reach their learning goals more efficiently. The current system of teaching that involves students learning the theories of qualitative research by reading and studying the philosophy of qualitative research before attempting to conduct it themselves could be reconsidered in light of our findings. Our study has uncovered the importance of implementing a more active learning teaching method, incorporating experiential learning earlier in the learning process. As Brandao (2009) notes, real-world observations helped students "to turn abstract concepts into first-hand knowledge: during subsequent classes, for example, students seemed to have less trouble linking what they read in textbooks with their previous practical experiences of 'doing' observation" (p. 98). Integrating this theory of early experiential learning into classrooms will lead to more student satisfaction and greater learning potential in the study of qualitative research. This idea comes through in the voices of the students, as in this example from Shaw et al. (2008): "You can only expect so much in a lecture... ..it took me ages to get what's going on with the whole... ..that was hard going" (p. 187).

Postponing the conducting of research has led to student anxiety over the practice of qualitative research. Students also face being completely overwhelmed by the amount of information they have to process and the many different subcategories of qualitative research. Just learning the many theories and analysis process of each of them leads the students to believe that the conducting of research is much more difficult than it actually is (Richards, 2011). They fear choosing the wrong method of analysis and not correctly following the procedures for the one they choose. The lack of practical skills makes the students apprehensive about qualitative research in general. Experiential learning, when started earlier in the learning process, helps students understand the subject better and

overcome any fears they may have about conducting research themselves (Schell et al., 2009). Thus, the theory developed in this study suggests that the current typical structure of qualitative research courses (i.e., philosophy, epistemology, followed by skills) be reversed or at least reconsidered.

In a study involving students' learning in a research workshop environment instead of a standard lecture class, Mullen (1999) found that students benefitted professionally and intellectually from the experience: "The experimental workshop format is an exciting alternative to the "stand and deliver" lecture style that predominates in colleges of education. It engages a wider spectrum of choices and discoveries that are important for graduate research development" (p. 20). Qualitative research needs to be experienced to be understood, whether through students conducting research on their own or in a group environment.

"...it's like art you have to do it to learn it you can't just sit there read a book and think 'oh, that's how I do it'" (Shaw et al., 2008, p. 187). Interaction with the data is just as important as reading about the data; likewise, interacting with other people, the social aspect of qualitative research, helps students understand the human factor involved in the process (Shaw et al., 2008). The data generated from the research pertain to people's lives. Learning about someone's life requires interacting with them, interpreting their words, and finding meaning behind their experiences. Students have to experience this to understand the true importance of qualitative research.

When creating learning experiences for college students, it is beneficial to focus on several aspects of learning in order to guarantee the most success. According to Fink (2003), active learning is important and should include application of the knowledge, integration of the material with real world events, and appreciation of the human factor involved in qualitative research. Applying the learned textbook material to actual projects helps students develop important skills, such as critical and creative thinking. It also teaches them how they can apply information they learn in other classes. The connections they make when integrating the material with human beings and real life experiences give them a feeling of intellectual power, and understanding the human factor helps them see the significance of the research they are conducting. This type of learning experience can only be had and understood through hands-on projects, and it supports our theory about the importance of experiential learning.

Experiential learning, when introduced early in the process, will help students understand the importance of what they are learning from the beginning of the course. Teachers will be able to improve the students' learning experiences by allowing them to participate in a research project while they are learning the theory behind it. "Becoming an effective teacher of adults depends on acquiring a balance between an appropriate philosophical vision of teaching and the understanding and implementation of that vision into a practical instructional process and its related elements" (Galbraith, 2004). Students aren't left to struggle with textbook meanings and to wonder about the purpose of all the information they are trying to take in. This balanced teaching will give students the chance to understand the importance of the methodologies involved and to see that qualitative research isn't actually scary but unique in its approach and use of human research subjects. Instructional strategies that incorporate this theory will be more likely to produce a successful learning environment.

Future Research

While our theory provides guidance to teachers of qualitative research, there are other areas of research that may lead to additional ways of improving the teaching of qualitative research. Although we found single case study design dominated this type of research with a faculty member typically studying his or her own class of students as the bounded case. We suggest researchers explore other observational designs such as case series, case control studies, and cohort studies from both retrospective and prospective points-of-view.

Observational research designs. Observations of qualitative research classes, both past and present, may show a pattern of teaching that can help us improve the direction of education in the field. In a case control study, researchers could begin to collect data from a specified qualitative research class, such as Foundations of Qualitative Research or the equivalent, after the implementation of the strategies developed from our theory. The study may take years to collect enough data that can be processed into a new theory or theories. The collected data should include the teaching methods used, including at what point in the semester experiential learning is introduced. It should also include an assignment checklist, the progress of each student on the assignments as the semester progresses, and a final narrative from both student and teacher as to how the class developed. The data, once collected, could be analyzed using the grounded theory method so that additional grounded theories could be developed.

One group of students in the class could be followed throughout their qualitative research career as a cohort study. Researchers could follow them from class to class focusing on their learning experiences. This group should be new students who have never taken a qualitative research class before. They should be observed as they proceed from class to class in a qualitative research program that uses our theory to design the curriculum. It's important to see if they express the same fears and frustrations as students expressed in classes before the implementation of our theory.

Intervention designs. As important differences become clearer across differences in terms of instructor and student pre-course experiences and preparation, intervention designs may then be explored to test the general efficacy of this more inductive approach and the specific effectiveness with particular student populations, disciplines, and qualitative methodologies and procedures. In addition, an intervention study may be most helpful at this point since we believe our grounded theory should be immediately incorporated into the teaching of qualitative research. This study will help determine how the introduction of our theory's components changes the learning experiences of the students. A group of students who have taken a class or classes that didn't involve experiential learning early in the process should be chosen. These students should have more classes to take in the qualitative research field. Once chosen, researchers should collect data from the students' previous learning experiences and then follow them as they transition to a class that offers experiential learning at the outset and continue to follow them until they have completed the requisite classes for their particular degree or certificate. This will allow researchers to determine the effectiveness of our theory and possible areas for more changes or improvements.

Instructor experience. Another way to determine possible flaws in the current teaching methods and ways of improving them is to focus on qualitative research instructors' experiences. Up until this point in the paper, we have intentionally

concentrated only on the student experience. We wanted only studies that revealed students' opinions in their own words. So, studies that focused on instructors' experiences were excluded from our sample. However, instructors may have valuable insight into ways of improving the teaching methods.

A meta-analysis similar to ours with inclusion criteria that consist of only studies that reflect the instructors' viewpoints with direct quotes would be beneficial. It would be particularly interesting to compare it to the results of this meta-analysis. Additionally, the same observational research and intervention designs proposed herein for future research of students' perspectives could be undertaken to study the instructors' experiences. Those studies could then be compared to the student-oriented studies of the same design. Of course, a single study that delves into the viewpoints of both instructor and students in the same class could also provide us with helpful insight to improve the teaching of qualitative research. Whatever direction future research takes, we look forward to being a part of the ever-evolving field of qualitative research.

For our own research program, we will continue our meta-study project with the meta-method, and meta-theory, leading to meta-synthesis of new knowledge constructed through these and this meta-analysis analytical stages (Paterson et al., 2001). We have already instituted a more inductive-learning focus in the qualitative courses we teach, so we are now generating our own primary data on how incorporating experiential learning early in the learning process can affect students' learning outcomes and their cognitive and affective experiences. This ongoing research into these new areas will continue to guide us from the implementation of our theory to the further improvement of qualitative research education.

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Appendix

Modified Primary Research Appraisal Tool

Reference (provide full APA style citation):

Qualitative Research Methodology/Procedure (e.g., interviewing skills, qualitative research methodologies, qualitative data analysis, etc.): Page # []

Unit of Learning (e.g., exercise, assignment, course, curriculum sequence, etc.):
Page # []

Major Learning Construct/Theory/Goals/Objectives Investigated (if applicable; e.g., competencies): Page # []

***Genre of Study (e.g., grounded theory, phenomenology, narrative analysis, generic qualitative, or other design):** Page # []

(*Note: If stated genre does not appear to match the research design, elaborate on the lack of fit.):

Nature of Sample:

Sampling Strategy (e.g., convenient, purposive, theoretical, etc.): Page # []

Inclusion Criteria: Page # []

Exclusion Criteria: Page # []

Total Number: Page # []

Ages: Page # [] Mean ages: Page # []

Number of men: Page # [] Number of women: Page # []

Ethnicity of sample: Page # []

Education of sample: Page # []

Other characteristics:

- Page # []
- Page # []

General Description of Research Approach/Design:

- Page # []
- Page # []

Major Findings:

1. Page # []
 - Page # []
 - Page # []
2. Page # []
 - Page # []
 - Page # []

Research Design:

- a. Problem Statement:
 - Statement of the phenomenon leads directly to the purpose of the study and the research question? Yes No Page #
- b. Purpose of the Research
 - clearly expressed? Yes No Page #
 - significance of research problem clearly indicated? Yes No Page #
- c. Research Questions
 - explicitly expressed? Yes No Page #
 - evidence of flow from the phenomenon? Yes No Page #
- d. Identification of Assumptions
 - identification of assumptions, preconceptions, presuppositions of researcher? Yes No Not Applicable Page #
- e. Identification of Theoretical Framework
 - identification of theoretical framework? Yes No Page #
 - if “yes,” name framework (if it is not well-known, include a description):
 - clarification of influence of theoretical framework? Yes No Not Applicable Page #
- f. Researcher Credentials
 - documentation of researcher’s discipline? Yes No Page #
 - if “yes,” name it:
 - any other pertinent information about the researcher (e.g., methodological preference, conceptual preference)? Yes No Page #
- g. Role of Researcher
 - nonresearch relationship of researcher to participants (e.g., student, dissertation advisee, unknown): Yes No Page #
 - evidence that researcher has considered the effect of his/her presence on the research findings? Yes No Page #
 - evidence that researcher has considered possibility of researcher bias or misinterpretation? Yes No Page #
- h. Sampling and Participants
 - description of type of sampling procedure? Yes No Page #
 - identification of inclusion criteria? Yes No Page #
 - discussion of attrition? Yes No Not Applicable Page #
- i. Data Gathering Strategy(ies)
 - clear description of data gathering procedures? Yes No Page #
 - if “no,” how could the description be improved?
 - description of gaining access? Yes No Page #
 - discussion of time frame of data gathering? Yes No Page #
- j. Data Analysis Strategies
 - description of the method(s) used? Yes No Page #
 - identification of categories or common elements found? Yes No Page #

- report of the participants' response to the analysis Yes [] No [] Page # []
 - data analysis presented in a clear framework (identification of central themes and categories)? Yes [] No [] Page # []
 - data presented in such a way that relationships between categories/themes are clear? Yes [] No [] Page # []
 - analysis well supported by representative quotes/findings? Yes [] No [] Page # []
 - provision of evidence as to how representative in the sample the various findings were? Yes [] No [] Page # []
- k. Conclusions, Discussion, Implications, Suggestions for Further Study
- identification of limitations of study? Yes [] No [] Page # []
 - specific limitations identified: Yes [] No [] Page # []
 - discussion pertains to all significant findings? Yes [] No [] Page # []
 - interpretive statements correspond with findings? Yes [] No [] Page # []
 - examination of findings with existing body of knowledge? Yes [] No [] Page # []
 - clear indication of directives for future research? Yes [] No [] Page # []
 - If "yes," indicate directives identified: Page # []

Other Considerations/Thoughts:

Decision to Include in Meta-Study:

Yes [] No [] Undecided [] (explain below)

+ This Primary Research Appraisal Tool was modified from the original tool as presented on pages 135-139 in

Paterson, B. L., Thorne, S. E., Canam, C., & Jillings, C. (2001). *Meta-study of qualitative health research*. Thousand Oaks, CA: Sage.

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