A Tale of Two Analyses: The Need for Standardized Reporting in Qualitative Research

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Qualitative research on household financial decisions can provide useful insights, but the lack of standards for reporting methods limits the ability of readers to judge such research. Because of the role of the researcher in qualitative research, understanding the procedures and the treatment of data is especially important to establish credibility. In this paper, we provide an example of the problems of inadequate reporting of qualitative methods by comparing the findings of two separate reports that are based on the same dataset. One report appeared in a research journal article and the other was in a thesis. The topics of the two reports differed. Only the thesis provided a complete description of the methods and participant responses. The journal article had very little information about the methods, leaving out crucial details and including misleading statements. We were able to learn of the methods actually employed because of our independent knowledge of the thesis. We question the findings of that article, based on external knowledge of the data. It is obvious to us after our comparison that the journal article authors started with conclusions then "cherry picked" comments to support those conclusions, ignoring other statements. Readers of the article would have been unable to realize that, because authors of the journal article did not adequately describe their methods or the source of their data.

Qualitative research is becoming popular for the study of household financial decisions. Qualitative research typically uses a small number of observations of individuals speaking, either individually to an interviewer or in a focus group setting. Often there is a standard set of prompts to elicit responses on a particular topic. The researcher then develops themes based on the data and presents them in light of an interpretation of the topic being investigated (Morrow, 2005). Ji, Hanna, Lawrence, Miller (2010) identified 17 articles using qualitative research methods in the *Journal of Financial Counseling and Planning* since 1997. Hanna et al. (2010) also reviewed articles in *Financial Services Review* to identify any that used qualitative methods, but concluded that the journal had not published any such articles. From our review of qualitative articles in *Journal of Financial Counseling and Planning*, it appears that unlike quantitative research, there is little standardization of description of research methods in qualitative research in the financial literature we reviewed, making it difficult to assess the validity of interpretations by authors of articles based on qualitative research methods.

The objective of this paper is to discuss some key issues in the reporting of qualitative research, and present an example of the need for standards in presentation. We draw on guidelines in health and counseling fields to establish baseline recommendations for reporting qualitative

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research. As an example of the misinterpretations that can result from inadequate reporting, we compare a published article, based on focus group data, to the findings of a master's thesis that also reported findings from the same focus group. Although the journal article did not point out any connection to the thesis, we confirmed that the journal article and the thesis used the same focus group data, with the focus groups being conducted by the thesis author. The journal article is based on "focus group material" which we determined was the transcript of the earlier focus group.

Because the masters thesis provided a complete source of qualitative methods and participant comments, we were provided with an unusual opportunity to compare two reports on qualitative research based on the same focus groups and to analyze whether the data and methods supported the conclusions in the journal article. As we will show, inadequate description of methods limits the ability of reviewers and readers to judge the validity of qualitative research, and therefore limits the credibility of qualitative research. We suggest guidelines for reporting qualitative research that would increase the transparency of the methods and establish the credibility of the findings. Following such guidelines would be helpful to researchers, reviewers, and consumers of research in analyzing alternative methods, questioning procedures in qualitative research, and thereby improving the quality of published research and our understanding of financial decision making.

Illustrations of Qualitative Research

The first article in *Financial Counseling and Planning* that reported qualitative research was by authors who are better known for their work in quantitative research with large datasets, the staff working for the Survey of Consumer Finances (SCF) sponsored by the Federal Reserve Board. The authors included the SCF director, Arthur B. Kennickell. (Kennickell, Starr-McCluer, & Sundén, 1997). The authors noted that the focus group approach can identify ranges of opinions and give people the opportunity to explain the basis for their behavior. Kennickell et al. used a focus group of eight individuals from households with net worth of $600,000 or more, or incomes exceeding $250,000, or both. Among other insights, the group agreed that "… uncertainty about income, health, and other factors make it very difficult to define an optimal financial plan." As with most other qualitative studies, it is difficult for other researchers to evaluate the authors' interpretation, as the recording of the focus group is not available to outside researchers in order to protect the privacy of the participants.

In an article that establishes standards for reporting methods that subsequent authors should emulate, Muske and Winter (1999) reported case studies of seven families in a study designed to better understand why some families do not follow recommended financial practices. The authors noted that their data "… included observations, words and activities of the respondents." The authors identified themes from the case study observations, based on in-depth interviews with each family every three months over a four year period. The authors described the procedures, discussed the importance of assuring validity and reliability of the data, and pointed out that even with qualitative data that the scientific method be followed. To assure the data and the researcher's conclusions were accurate, respondents received copies of transcripts and also copies of the "initial analyses to see if their intended meanings were being accurately recorded." The authors further described debriefing and triangulation techniques among the involved researchers to validate the findings, establishing the credibility of the authors and the reliability and validity of the data and findings.

To better understand variations in behavior related to obtaining and utilizing education in retirement planning, Thompson, Sharpe and Hamilton (1998) used qualitative research methods consisting of a structured questionnaire with open-ended questions, followed by a personal interview with each respondent. The authors analyzed the data by following established procedures to develop coding systems for each type of data gathered, and used the coded data to identify themes and develop what they considered the most relevant story, considering the initial research goal and the character of the data. The authors did not report the length of either interview nor the quantity of data obtained.

The three articles summarized above give an idea of the types of qualitative research published in the *Journal of Financial Counseling and Planning*. Ji, et al. (2010) provided a summary of all publications in that journal during its first 20 years, from 1990 to 2009. They noted that the frequency of qualitative articles increased in the second decade of the journal, with three qualitative articles in the first decade and 14 qualitative articles in the second decade. They analyzed 271 articles to determine the frequency of qualitative and quantitative research, with 72% of the articles being quantitative and slightly more than 6% being qualitative. The other articles were primarily theoretical, literature reviews, or opinion pieces. The increasing number of qualitative articles underscores the importance of guidelines and standards for authors and reviewers of qualitative research. The following section summarizes standards, drawing from recommendations of authors in other fields for qualitative research.

Recommended Standards of Reporting Qualitative Research Methods

Any research, whether quantitative or qualitative, should meet accepted standards of the research community. Although experimental design may not be possible or appropriate for descriptive financial research, the basic tenants of control and accountability should be apparent. It is especially important that qualitative research be described in detail in order to establish the credibility of the research and researchers. Golafshani (2003) noted differences in approaches to validity and reliability of qualitative and quantitative research, and the importance of the researcher establishing credibility in qualitative research. She stated that "the credibility of a qualitative research depends on the ability and effort of the researcher. Although reliability and validity are treated separately in quantitative studies, these terms are not viewed separately in qualitative research. Instead, terminology that encompasses both, such as credibility, transferability, and trustworthiness is used."

Although it is to be expected that the reporting of qualitative research would vary according to the specific methods employed, any qualitative research should be reported in a manner that the basic research components are clear. All research, including qualitative research, should be reported with sufficient detail that it can be replicated. Several commentators (Matthews, 2005; Morrow, 2005; Mays & Pope, 2000) noted the importance of describing qualitative research methods in detail sufficient to enable the replication of that research. The research components listed above should be described in as much detail as they would be for quantitative research - -- enough detail so that another researcher, using the same methods, would reach the same conclusions.

The characteristics of the sample are essential to understanding the data. How the participants were selected, why they are appropriate for the research question being explored, and how many participated are as important as in quantitative research. Because an underlying characteristic of qualitative research is rich, in-depth data that the participants provide, the type of interaction and the extent of the interaction with each participant in the study should be spelled out and the "richness" of the data should be described in specific terms. Were specific prompts or questions used? Were the responses to specific prompts categorized, coded and counted?

A primary characteristic of qualitative research is using the data to develop themes. Morrow (2005) suggested that good qualitative research should describe in detail how the statements were reduced to themes. In this regard, interviewer bias must be avoided. Even though the themes relate to the focus of the study, the data, not the interviewer, should determine the themes. Often data is coded, following one of several established coding methods (Spiggle 1994). Coding and some sense of frequency are especially important if the researcher uses quantitative terms such as "most" or "many" or characterizes a group for displaying or not displaying a particular characteristic. While researchers may state that the themes were revealed or were identified, they typically use one or more of the established procedures Spiggle (1994) discussed. No matter what method is used, researchers should proceed systematically. Spiggle pointed out that in proceeding systematically, tabulations are helpful to make all comparisons and "minimize potential distortion from selective use of the data." In any analysis, the direction of the analysis should go from the data to the conclusions. Matthews (2005) warned against imposing a framework on the data rather than grounding the framework in the data.

As with quantitative research, non-confirming data, data that does not support the underlying conclusions, must be addressed. How the researcher deals with non-confirming data is important in establishing researcher credibility and lack of bias. There should be a clear process of searching for discrepant findings or disconfirming evidence. It is essential to combat confirmatory bias and to avoid an overly simplistic interpretation of the data. Chenail (1995) suggests that in establishing credibility, that in addition to presenting as much data as possible in papers and presentations, that the researcher store it and make available for others to review. Chenail (1995) suggested the practice of making complete transcripts available to readers by storing them with a national clearinghouse.

Questions to ask in establishing credibility
Qualitative research has a longer history in non-financial fields, including family studies and health care, than in household financial research. Thus there are more developed standards of research and reporting. Borrowing from those fields provides a starting point in developing standards for family finance topics. For example, Giacomini and Cook (2000) suggested the following questions in analyzing qualitative research:

- Was the study designed to address its research question or objectives?
- Were the participants selected relevant to the research question and was the selection and sampling process well reasoned, justified and articulated?
- Were data collection methods appropriate for the research?
- Was the data collected comprehensive enough to support rich and robust descriptions of the observed events?

- Is the research reported and analyzed in a way another could follow and understand the process between data and interpretation?
- Were the data appropriately analyzed and findings adequately corroborated?

Our Analysis

We discuss two studies based on the same focus groups, and demonstrate that one journal article reporting the focus group comments was misleading and had inadequate description of its methods. We conclude with implications for standards for reporting qualitative research.

The Focus Groups

Erin Gaeta, a graduate student in the Consumer Sciences Department at Ohio State University, conducted five focus groups of about one hour each, with a total of 45 women each participating in one of the sessions. The focus groups were held as part of the Ohio Treasurer of State's Women and Money Program and were conducted in June, 2005. The research was part of her thesis for her Master of Science degree (Gaeta, 2005). The sample consisted of women who volunteered to participate, with the selection criteria being that they invested in mutual funds either directly or indirectly. The objectives of the focus groups, as reported in the Gaeta thesis, were to (1) ascertain which sources of information women used when selecting mutual funds and (2) to have feedback on a sample mutual fund prospectus presented during the second half of each session. Gaeta reported her methods and all comments recorded during the focus group sessions. Her objectives are listed in our Table 1.

Loibl, Lee, Fox, and Mentel-Gaeta (2007) used unidentified "focus group material" to discuss the decision making process and the stressfulness of decision-making by women about investment choices. Loibl et al. did not mention directly that their research was based on the Gaeta (2005) thesis, but we independently confirmed that the transcript was the data for the research. Loibl et al. described the objectives of the analysis very differently from the Gaeta (2005) objectives. Gaeta never mentioned any of the themes that are the focus of the Loibl et al. article (Table 1).

Loibl et al. (2007) described the sample as a "total of 45 women participated in five focus group sessions." It is not clear from the article whether each woman participated in 5 sessions, or whether 45 women participated in one of five sessions. The difference is important in terms of the depth of the data on which the conclusions were draw. Loibl et. al implied that all of the women in the focus groups were (1) investing in their employers' retirement plans and (2) that those investments were high consequence decisions. Based on the Gaeta (2005) thesis, it is clear that each woman participated in only one focus group and that there was no way of knowing whether the women thought they were making high consequence decisions. Gaeta (2005) did not gather data that would enable her to characterize decisions as high consequence or to even know if they were investing in retirement plans. However, a reader of Loibl et al. would assume that the focus groups were designed and selected for the purpose of studying high consequence retirement decisions of women investing for retirement.
Loibl et al. (2007) implied that all of the women were investing in their employer's retirement plan. Gaeta (2005) made it clear that participants were not limited in that way. There were also a number of factual discrepancies. Loibl et al. reported that 47% had a college degree, while

Gaeta reported that 64% had a college degree. Loibl et al. reported that 62% had access to financial education at work. Gaeta reported that only 33% had such access.

A primary difference in the focus of the two analyses of the same focus groups is that the Loibl et al. (2007) conclusions focus on emotional aspects of the decision making process. Gaeta's (2005) conclusions focus on the information sources the women mentioned using when making decisions. She did not attempt to describe behavior or the process of decisions, and she did not investigate these topics in her focus group discussions. Nor did Gaeta ask questions investigating the emotional nature of decisions. The prompts reported by Gaeta were limited to questions of what sources of information the women use, what they consider when buying mutual funds and what sources of information they use when deciding whether to buy a mutual fund.

Morrow (2005) suggested that the methods used in qualitative research be reported in great detail, but there was very little description of the methods in Loibl et al. (2007). They did not describe the prompts used to elicit the comments. They did not describe how the body of data was reduced to reach the conclusions. They did not develop prompts to study "complex choice processes," nor were focus groups carried out to study "complex choice processes" which she claims the research studies. However, it is reasonable for a reader of the Loibl et al article to conclude that the study was designed to elicit information relevant to their conclusions. They state "to examine the validity of the choice goal's framework for women's financial decision making, the present study relied on a qualitative approach using focus groups to explore the choice processes. . . . It was decided that focus groups were an appropriate and innovative method for exploring motivations, attitudes, and perceptions as they provided an opportunity for women investors to express their views in their own words and in a social context with fellow women investors. The present study used this approach to suggest an understanding of consumer choice processes. . " (p. 36).

Although the Loibl study was presented as if it were designed to elicit information about choice processes, the authors do not disclose that the research is based on a transcript, that it was not designed to study the variables or concepts that the author discusses, that the decision to discuss the topic was made after the data had been collected, and that data was collected for a different purpose using prompts that would not likely elicit the types of information that would support the authors' conclusions. If, indeed, a secondary analysis of the transcript showed themes the original researcher had not detected, it should be clearly revealed that the authors were doing a secondary analysis of the data and the original research had not been designed to elicit data on the topics they discuss.

An analysis of the transcripts from the focus groups (Gaeta, 2005) reveals that there was no in-depth data about the decision making process. In fact, there was little data about each woman to create a profile of any one woman and her decision making. Our own analysis of the transcript shows that during the discussion of their own investing resources and decisions, most women made two or fewer statements, beyond their introduction. At least one-half of the focus group hour was spent performing tasks related to evaluating a sample prospectus, so the comments during that time were related to a sample prospectus and its ability to inform, not on their own investing. In the discussion portion of the focus group, 10 participants said nothing beyond the introduction. Seven participants made one statement, seven made two statements, and six made three statements. The median number of statements per woman was two. Loibl did not describe the depth of the data or the amount of contact with each participant. There is clearly insufficient data to draw conclusions regarding the processes women use in selecting investments, or the emotional aspects of those decisions.

The Loibl et al. (2007) article makes many statements about the decision making process of women, portraying them in an often unflattering light, as emotional and unable to deal with making investments. These can be seen in Tables 1 and 2. The following are some examples of the negative portrayal of women and investment decisions. That such conclusions can be made based on a median of two total statements per woman raises serious questions about the validity of the results. These conclusions are of a nature that would require in-depth knowledge of each woman's investment decisions.

The following are quotes from the Loibl article:

- "The participants seemed to link the negative, stress-related emotion of making investment decisions to subsequent avoidance of the topic once the decision is made."
- "The participants suggested that a central feature of high-consequence investment decisions is that investment decisions are made with little confidence in investment knowledge."
- "We have shown how the decision making strategies women use are more or less accurate, effortful, and emotionally wrenching in their social and informational environment. . . "
- "The findings show that the participants struggled to make sound investment decisions for their retirement funds while trying to keep the effort and the emotional involvement during the decision making process within limits. "
- "The women mostly continued using simple, lexicographic decision making heuristics (e.g. relying exclusively on the most recent performance of a mutual fund)."
- "Only over time, when some of the women became familiar and more experienced with the investment decision making, was more extensive processing apparent."
- "The present study contributes to the literature on investment decision making by examining the choice processes of women investors. In particular, it addresses decision accuracy, cognitive effort, and emotional trade-offs evoked in this high-consequence decision task."
- "The involved trade-offs also may explain whey the participants experienced the mutual fund decision as difficult, complex ,and demanding, why they adopted easier-to-use noncompensatory strategies, and why many relied on agents to help employ compensatory strategies that they felt were required when the stakes were high."

Only by studying the Gaeta (2005) thesis, coupled with an examination of the methods and transcripts included in that thesis, would have it been possible for a reviewer or editor to discern that the Loibl et al (2007) article misrepresented what was done and arrived at conclusions that were not justified by the data.

Implications for Reporting of Qualitative Research

The Loibl et al. (2007) research reporting, with silence when a disclaimer is warranted, does not come close to meeting the standards that would assure the quality and trustworthiness of qualitative research. What is needed is an underlying consensus and understanding of basic components of qualitative research. Apparently, such standards have not been developed specifically for financial-related research. It is important that they be developed so that reviewers and readers alike ask the appropriate questions when evaluating such research. Without standards, it is all too easy for a researcher who is advocating a certain result, and a reviewer, who is advocating a particular research method, to overlook flaws and accept unsubstantiated results.

Many studies reporting quantitative research use datasets available publicly, such as the Survey of Consumer Finances, so other researchers can attempt to replicate the research. Qualitative research is unlikely to be available to the same extent, but at a minimum, authors reporting on qualitative research should make available redacted transcripts so that readers can observe to whether the published research "cherry picked" comments to reach particular conclusions. The availability of the Gaeta (2005) thesis with complete reporting of all comments enabled us to reach such a conclusion about the Loibl et al. (2007) article, but a reader of that article would not realize that that the research was based on the Gaeta thesis. The Loibl et al. article should have directly pointed out the data source it was using.

Descriptions of qualitative research methods should also follow standard procedures such as suggested by Morrow (2005) , specifically that the research methods be in sufficient detail so that the research can be replicated. The method of analyzing data and developing themes should be carefully spelled out (Spriggle, 1994). We recommend that the following format of reporting in order to insure that important issues are addressed. In establishing the trustworthiness of the research, a qualitative researcher should thoroughly report all of the following:

- The theory
- The research question
- The research design, specific to that question
- Who conducted the research and in what setting
- The variables and measurement of the variables
- The sample
- The data
- The method of analysis and development of themes
- The findings
- Limitations of the research
- Conflicts of interest (such as whether the researchers benefit financially from particular findings).

Editors and reviewers of qualitative research should insist that reporting standards be followed, and that rigorous and specific questions be asked of each research report. The questions such as those Giacomini and Cook (2000) posed, that are summarized above, should be part of every researcher's and reviewer's evaluation. Failure to insist on rigorous standards will mean that all qualitative research will continue to be considered as having limited credibility, in spite of its potential contribution.

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Table 1
Selected Objectives and Methods from Two Studies Using the Same Focus Group

Loibl, et al. (2007)	**Gaeta (2005)**
Objectives and Methods	
p. 36. "To examine the validity of the choice goals framework for women's financial decision making, the present study relied on a qualitative approach using focus groups to explore this choice process."	p. 33. "To gain insight into the mutual fund selection process of women and their use of mandated disclosure information. . ." Gaeta never mentioned the *choice goals framework.*
p. 37 ". . . it was decided that focus groups were an appropriate and innovative method for exploring motivations, attitudes, and perceptions as they provided an opportunity . . . "	p. 4. "Specifically, the research will examine information sources that females use during the mutual fund selection process and assess the effectiveness of fund prospectus at assisting investors in the decision-making process." Gaeta did not mention "*motivations, attitudes and perceptions*"
p. 38. "The present study used this approach to suggest an understanding of consumer choice processes in a situation characterized by lack of information, complex information display formats, and time limits for processing available information."	p. 36. purpose: 1. To find which sources of information women use. 2. Selection criteria . . . "The purpose of this focus group component was to gain an understanding into the elements of the mutual fund that non-professionals use when purchasing mutual funds."
p. 37. "The work was meant to be both suggestive for future research and interpretive of the complex mutual fund decision making process."	Gaeta did not study the decision making process. She identified sources of information women use in the process.
p. 36. "Such choices can, according to Bettman et. al., lead to negative emotion, and the individual decision maker is likely to look for a way out to escape the wrenching situation as fast as possible."	Gaeta did not investigate the emotional aspect of investments. Nor did Gaeta report *negative emotional* responses.

Table 2
Conclusions About Women Investors in Two Studies Using the Same Focus Group Results

Conclusions from Two Studies	
Loibl et al. (2007)	**Gaeta (2005)**
p. 37. "We have shown how the decision making strategies women use are more or less accurate, effortful, and emotionally wrenching in their social and informational environment "	Gaeta did not suggest that the participants found mutual fund decisions to be *emotionally wrenching*.
p. 40. "The participants seemed to link the negative, stress-related emotion of making investment decisions to subsequent avoidance of the topic once the decision is made."	Gaeta made no such finding. She did not suggest that they experienced any *negative, stress-related emotion of making investment decisions.*
p. 42. "Taken together, the focus group participants expressed their information deficits and reliance on simplified, lexicographic decision making strategies. The decision making process often was experienced as conflict-laden and stressful."	Gaeta made no such finding and did not suggest the *decision making process often was experienced as conflict-laden and stressful.*
p. 44. "The negative stress experienced while making the investment decisions and the resulting coping strategies characterize the emotional aspect of the choice process. The influence of emotion on the accuracy-effort consideration might explain why the participants struggled to choose a strategy that maximized the expected benefits given the costs of information acquisition and computational effort."	Gaeta made no such finding. She did not suggest that the women experienced *negative stress, emotional aspect, or struggling to choose a strategy*.
p. 44. "The involved trade-offs also may explain why the participants experienced the mutual fund decisions as difficult, complex, and demanding, whey they adopted easier-to-use noncompensatory strategies, and why many relied on agents to help employ compensatory strategies that they felt were required when the stakes were high."	Gaeta made no such finding. She did not suggest that they found the decisions as *difficult, complex, and demanding*.
p. 41. "Deciding to keep a stock-heavy mutual fund that experienced significant losses for expected future return meant the participants had to make explicit trade-offs."	Gaeta made no such finding. She did not investigate trade-offs.
p. 38. "The participants suggested that a central feature of high consequence investment decisions is that investment decisions are made with little confidence in investment	Gaeta made no such finding.

Conclusions from Two Studies	
Loibl et al. (2007)	**Gaeta (2005)**
knowledge."	
p. 38. "The participants noted they lacked information necessary to generate preferences about mutual fund options and fund attributes."	Gaeta made no such finding. The participants did not discuss fund options and fund attribute to enable this conclusion.
p. 38. "They missed having a set of preferences on hand that they could rely on to make investment decisions."	Gaeta made no such finding.
p. 38. "They were faced with difficult choices with multiple options and no obvious right answer. The process of constructing investment preferences caused concern and unease."	Gaeta made no such finding.
p. 38. "The participants suggested that their mutual fund choices involved a rather cursory consideration of limited information (e.g. the key information provided by popular financial Web sites)."	Gaeta made no such finding.
p. 38. "Most often, the women used specific attribute information to employ a lexicographic decision making strategy: the fund with the best value on the most important attribute was selected."	Gaeta reported no such observation. Their decision making strategy was not studied.
p. 38. "Many of the women believed that past performance was the most important attribute for a mutual fund, so they examined past performance (and no other information) for all funds and chose the one with the highest return over a certain period of time."	Gaeta reported no such observation. The questioning and discussion did not provide for the conclusion "*no other information*."
p. 44. "The observed lack of investment knowledge, reliance on simplified decision heuristics, and dependence on decision making guidance from others characterize the accuracy-effort dichotomy. The negative stress experienced while making the investment decisions and the resulting coping strategies characterize the emotional aspect of the choice process. The influence of emotion on the accuracy-effort consideration might explain why the participants struggled to choose a strategy that maximized the expected benefits given the costs of information acquisition and computational effort."	Gaeta made no such finding.