

Credibility

A Quality Approach to Qualitative Data Collection

10 Articles on Scope & Data Gathering

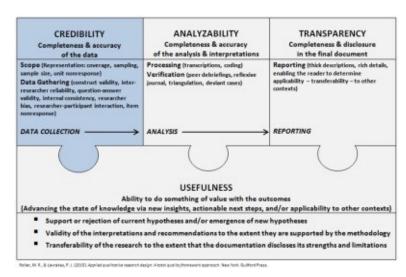
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The contents of this compilation include a selection of 10 articles appearing in Research Design Review from 2017 to early 2022 concerning the Credibility component of the Total Quality Framework. Excerpts and links may be used, provided that the proper citation is given.

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Credible Qualitative Research: The Total Quality Framework Credibility Component



The Total Quality Framework
(TQF) has been discussed in several articles appearing in Research Design Review. Some of these articles simply reference the TQF in the context of a broader discussion while others – such as "A Quality Approach to the Qualitative Research Proposal" and "Evaluating Quality Standards in a Qualitative Research Literature Review" – speak more directly about applications of the TQF. The TQF is defined as "a comprehensive

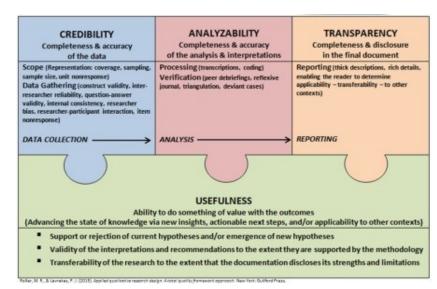
perspective for creating, managing, and interpreting quality research designs and evaluating the likelihood that a qualitative study will provide information that is valid and useful for the purposes for which the study is intended" (Roller & Lavrakas, 2015, pp. 21-22). In essence, the framework offers qualitative researchers a way to think about the quality of their research designs across qualitative methods as well as a particular paradigm or theoretical orientation. In this way, the TQF is grounded in the core belief that,

if it is agreed that qualitative research can, in fact, serve worthwhile purposes, then logically it would serve those purposes only to the degree that it is done well, regardless of the specific objectives that qualitative researchers strive to address. (p.20)

There are four components to the TQF – Credibility, Analyzability, Transparency, and Usefulness – each pertaining to a distinct aspect of the research process. The schematic (below) shows the interrelatedness of these components, with each of the first three components contributing to the fourth component, and ultimate goal of qualitative inquiry, i.e., Usefulness.

This article is a brief discussion of Credibility which is the TQF component having to do with data collection in qualitative research. Subsequent articles are devoted to the other three components – Analyzability, Transparency, and Usefulness.

From a TQF perspective, credible qualitative research



is the result of effectively managing data collection, paying particular attention to the two specific areas of Scope and Data Gathering. **Scope** has to do with how well the participants from which data are gathered represent the broader population of people that is the focus of investigation. There are four considerations related to Scope. The qualitative researcher needs to think about*: (a) defining the target population; (b) how these individuals will be selected for inclusion in the study (i.e., the source itself – e.g., a list to sample from, a community center to draw from – and the procedures to be used to sample from the source); (c) how many participants the researcher ultimately wants to include in the study; and (d) strategies to maximize the researcher's ability to gain access to and cooperation from the people of interest.

There are articles in *RDR* that discuss the various considerations related to Scope. For example, a *RDR* post back in 2012 titled "Designing a Quality In-depth Interview Study: How Many Interviews Are Enough?" talked about the many factors researchers should think about when determining the number of in-depth interviews to complete for an IDI study, both at the initial design phase as well as when in the field.

Data Gathering is the other critical ingredient to Credibility. Data Gathering has to do with how well the data collected in a qualitative study accurately represent the concepts the study set out to investigate. Data Gathering, you might say, is concerned with construct validity (where "construct" may refer to anything from a narrow topic to a broad and possibly ambiguous concept), addressing the question of How confident am I that my data truly answer my research objectives? There are four considerations the qualitative researcher will want to think about when designing and conducting Data Gathering: (a) identifying the appropriate constructs – as well as the specific attributes within each construct – to measure based on the research question or objectives; (b) choosing the appropriate qualitative method as well as the appropriate mode; (c) developing the data collection tool(s) to effectively operationalize and measure the constructs and their attributes, e.g., the interview or

discussion guide; and (d) mitigating sources of bias and inconsistency associated with the data collector (researcher) as well as the participants.

There are many examples in *RDR* of articles that discuss various considerations within Data Gathering. For example, the development of an interview guide is the topic of "Interview Guide Development: A 4-Stage 'Funnel' Approach." And articles that address issues of researcher and/or participant bias and inconsistency include "The Recipe for Quality Outcomes in Qualitative Research Includes a Healthy Dose of Consistency," "Mitigating Researcher-as-instrument Effects," and "Qualitative Data: Achieving Accuracy in the Absence of 'Truth'."

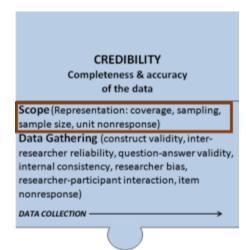
Credible qualitative research is derived, not from a strict set of rules to follow but rather, from a keen sense of the research objectives and an understanding of how to think about the research principles that apply to data collection in relationship to the research question under investigation. By way of the TQF Credibility component, qualitative researchers are encouraged to think carefully about the composition (and inclusiveness) of their participants along with the unbiased and consistent manner in which data is gathered. It goes without saying that the flexible and contextual nature of qualitative research will attract any number of missteps – e.g., a skewed participant mix or researcher effects that bias the data – but the point here is that qualitative researchers need to be conscious of these factors, to reflect upon them and record these reflections, and to use this information in the interpretation and reporting of findings. This, of course, is where the other TQF components — Analyzability, Transparency, and Usefulness — play key roles.

Roller, M. R., & Lavrakas, P. J. (2015). Applied qualitative research design: A total quality framework approach. New York: Guilford Press.

^{*}These considerations also pertain to qualitative content analysis where the focus is on objects and text rather than individuals.

A TQF Approach to Choosing a Sample Design

The <u>Total Quality Framework</u> (TQF) offers qualitative researchers a way to think critically about their research designs and helps to guide their decision making. The TQF consists of four components, with each component devoted to the critical thinking considerations associated with a phase in the research process. The first component of the TQF is <u>Credibility</u> which is focused on data collection; specifically, Scope and Data Gathering. One of the many considerations related to Scope has to do with the sample design.



The following is a modified excerpt from <u>Applied Qualitative Research Design: A</u> <u>Total Quality Framework Approach</u> (Roller & Lavrakas, 2015, pp. 25-26) on the different aspects of sampling that researchers might want to think about as they develop their qualitative research designs.

Once the researcher has identified the list (or lists) that will be used to select the sample, a decision must be made about which sampling approach will be used. If the decision is to gather data from each member of the population on the list (e.g., all 20 students enrolled in an honors science class), then there is nothing more for the researcher to consider. But for those studies where something less than the entire population will be chosen for study, additional Total Quality Framework (TQF) decisions need to be made about sampling.

Here, qualitative researchers may needlessly lessen the quality of their studies by not giving these decisions sufficient consideration. In fact, some qualitative researchers may think that how they create a sample of the population is unimportant. Qualitative researchers may proceed in this manner because they mistakenly believe that systematic sampling is too hard to carry out (i.e., too complex, too expensive, and too time-consuming) and that it is "too quantitative" a concern. Yet, in the vast majority of qualitative studies, systematic sampling is neither complex, expensive, nor time-consuming, and should not only be a quantitative issue. And by using an organized approach for choosing which members of their key population to study, as opposed to merely using a convenient and disorderly approach to sampling, qualitative researchers avoid a major threat to the credibility of the data they gather. That threat is the possibility that those from whom they gather data are not, in fact, representative (do not share defining characteristics) of the population being studied.

Take, for example, a focus group researcher that has a list of men and women who completed a cardiopulmonary resuscitation (CPR) training class in the past year. The researcher can choose one of two basic approaches to selecting those who will be invited to participate in a group discussion. The often used but misguided approach is to start at the top of the list and contact people, one after another, until the focus groups have been filled with ostensibly willing attendees. The rigorous and correct approach is to use an organized scheme to sample CPR class graduates from across the entire list (i.e., stratifying the list and taking an 'nth' name approach). The second approach is preferred because it avoids the possible problem that the names on the list are ordered in a way that is not representative of the entire population of CPR graduates that the researcher wants to study.

A final TQF issue related to choosing a sample applies to qualitative studies that utilize observations of naturally occurring human behavior to gather data, such as in ethnographic research. In these studies, sampling considerations need to be applied to the times and the locations during which the behaviors of interest will be observed. By systematically choosing which locations and which times to conduct the observations—among all possible locations and times in which the behaviors of interest will be taking place—the qualitative researcher is greatly raising the likelihood that the observations included in the study are a representative subset of all the possible behaviors of interest to the study.

Roller, M. R., & Lavrakas, P. J. (2015). *Applied qualitative research design: A total quality framework approach*. New York: Guilford Press.

Qualitative Research Participants: Gaining Access & Cooperation

The following is a modified excerpt from <u>Applied Qualitative Research Design: A Total Quality Framework Approach</u> (Roller & Lavrakas, 2015, p. 28).



When developing the <u>sample design</u>, including the <u>sample size</u> for a qualitative study, careful attention needs to be paid to how the researcher will gain access to individuals in the sample and then gain their cooperation to participate in the research.

In doing a company-sponsored in-depth interview study of employees, for example, gaining access to the employees who have been sampled may be as simple as sending each of

them a notification that their employer has authorized the researcher to contact them to request their participation in the research study. Or it may be as challenging as gaining permission from "gatekeepers" who have the right to deny access to the individuals the researcher wants to study — e.g., parents of the children who will be studied, presidents of the professional organizations whose members will be studied, wardens of prisons whose inmates will be studied, etc. The challenge of gaining access from gatekeepers is essentially finding successful strategies that (a) provide guarantees to the gatekeepers that no harm will come to the participants, (b) communicate the worthiness of the research study, and (c) offer some benefit to the gatekeeper or the organization.

Once access to the sampled participants has been granted, the researcher must use strategies to gain cooperation from those who have been chosen. Ideally a very large portion of those who have been sampled will agree to participate. Gaining cooperation is important. This is because, from a **Total Quality Framework** standpoint, individuals who are chosen to be included in the study but do not participate (e.g., because they refused to cooperate) may differ in important ways from those who do participate, jeopardizing the integrity of the data which can lower or even undermine the **credibility** of the qualitative study. If, for example, a disproportionately greater number of males, compared to females, who have been sampled from a list of college freshmen can never be contacted or refuse to participate, and if these sampled males would have provided data that are materially different from the data provided by the other freshmen on the list who did participate in the study, then the research findings will be biased because of the data missing from a major subgroup of the population.

To avoid these problems, qualitative researchers need to utilize strategies meant to overcome the reason(s) that causes some people who are sampled to not cooperate and fail to participate. Such strategies include:

- Building rapport early with the participants, thereby gaining their trust.
- Assuring the participants of complete confidentiality.
- Explaining the non-material benefits to be gained by participating (e.g., helping to raise the quality of life in the neighborhood).
- Explaining the material benefits, if any, to be gained by participating (e.g., the offer of an Amazon gift card).

Whichever strategies the researchers choose to deploy, ideally they will be tailored (at the individual level) to appeal to the particular types of participants in the sample in order to overcome reluctance or unequivocal refusal during the recruiting process.

Towards a Credible In-depth Interview: Building Rapport

The following is a modified excerpt from <u>Applied Qualitative Research Design: A Total Quality Framework Approach</u> (Roller & Lavrakas, 2015, pp. 88-89).



Not unlike the discussion in "Building Rapport & Engagement in the Focus Group Method," a necessary skill of the indepth interviewer is the ability to build rapport with the interviewee. Rapport building begins early in the study design and continues through completion of the indepth interview (IDI). The following are just a few guidelines that IDI interviewers

should consider using in order to establish a trusting relationship with their interviewees and maximize the **credibility** of their outcomes:

- Regardless of the mode by which the IDIs will be conducted, the interviewer should contact each recruited interviewee on the telephone at least once prior to the scheduled interview to begin establishing rapport. This **preliminary conversation** helps the interviewer and the interviewee make a personal connection, manage their respective expectations, and facilitate an open dialogue at the interview stage. In addition to building rapport, an early personal exchange with the interviewee also instills legitimacy in the research, which further aids in the interview process and makes the interviewee comfortable in providing detailed, thoughtful, and credible data.
- The interviewer's preliminary communication with the interviewee should make clear (a) the <u>purpose</u> of the study and the interviewer's association with the research; (b) the anticipated <u>length</u> of the study (i.e., a date when the research is expected to be completed); (c) the <u>breadth</u> of the interview (i.e., the range of topics that will be covered); (d) the <u>depth</u> of the interview (i.e., the level of detail that may be requested, either directly or indirectly); (e) the <u>time commitment</u> required of the interviewee (e.g., length of a telephone IDI, the frequency participants are expected to check email messages in **an email IDI study**); and (f) the material <u>incentive</u> (e.g., cash, a gift card).
- The interviewer should make a conscious effort to interject a sign of **sincere interest** in the interviewee's remarks, but do so in a nonevaluative fashion, without displaying either approval or disapproval with the sentiment being expressed by the interviewee (e.g., "Your comments interest me, please go on").

- Particularly in the telephone and online modes, the interviewer must be able to identify and respond to cues in the conversation—for example, the interviewee's audible hesitations or the background noise in a telephone IDI, or nonresponse from an email participant. The email interviewer also needs to be sensitive to the idea that they may have misjudged the participant's intent. For instance, Bowker and Tuffin (2004) report on the potential difficulty in judging whether an email IDI participant has more to say on a topic or whether certain questions would be deemed redundant. In either case, these potential miscalculations on the part of the interviewer can interfere with the interviewer—participant relationship, with interview participants providing short retorts, such as, "Yes, that was the end [of my comments]!" (Bowker & Tuffin, 2004, p. 237).
- With telephone IDIs, the interviewer—interviewee relationship can be enhanced by **adding a webcam and/or an online component**. The ability to see the interviewee and/or present stimuli to them (e.g., new program service features, promotional concepts, audio and video clips) during the interview takes advantage of the benefits of face-to-face contact.

Bowker, N., & Tuffin, K. (2004). Using the online medium for discursive research about people with disabilities. *Social Science Computer Review*, 22(2), 228–241. https://doi.org/10.1177/0894439303262561

Roller, M. R., & Lavrakas, P. J. (2015). Applied qualitative research design: A total quality framework approach. New York: Guilford Press.

Image captured from: https://chiefexecutive.net/why-power-saps-empathy-and-what-you-can-do-to-keep-yours/

Re-considering the Question of "Why"

It is easy to fall into the trap of relying on the "why" question when conducting qualitative research. After all, the use of qualitative research is often supported with the claim that qualitative methods enable the researcher to reach beyond quantitative numerical data to grasp the meaning and motivations – that is, the why – associated with particular



attitudes and behavior. And it is in this spirit that researchers frequently find themselves with interview and discussion guides full of "why" questions – *Why* do you say you are happy? *Why* do you prefer one political candidate over another? *Why* do you diet? *Why* do you believe in God? *Why* do you use a tablet rather than a laptop computer?

Yet "why" is rarely the question worth asking. In fact, asking "why" questions can actually have a negative effect on data collection (i.e., <u>Credibility</u>) and may contribute to a distortion in qualitative data. This happens for many reasons, here are just four:

The "why" question potentially

- Evokes rationality. By asking the "why" question, researchers are in essence asking participants to justify their attitudes and behavior. In contemplating a justification, it is not unusual for participants to seek a response that "makes sense," seems logical, or is otherwise deemed appropriate. This defensive reaction may go unnoticed (by the participant as well as the researcher) unless participants are asked to reflect further on their rationalizations, allowing the researcher to identify and mitigate potential bias associated with social desirability and other forms of distortions.
- Stifles the researcher-participant conversation. The "why" question potentially stifles the research interview or group discussion in at least two ways: 1) It stops the flow of conversation while the participant considers rational scenarios in response to the researcher's question and 2) It requires a certain amount of backtracking by the participant to explain a rationalization that hopefully "makes sense" but may not be particularly relevant to the research topic or intended question.
- Clouds question meaning. Along with potentially stifling the interview or group discussion, the "why" question does little to convey the researcher's intent or meaning of the question. As a wide-open question, the participant may struggle with its

ambiguity and become frustrated in attempts to find meaning. In this regard, the "why" question potentially results in – what survey researchers call – "respondent burden." For example, it is much easier on the participant, and more informative for the researcher, when the question is "What are the specific aspects of your life that make you happy?" compared to "Why do you say you are happy?"

• Asks a different question from the one intended by the researcher. In addition to being construed as vague or ambiguous, the "why" question might also be interpreted as asking something different than the researcher's intent. Because of this potential for misinterpretation, the researcher needs to think carefully before asking the "why" question. For example, the question "Why do you use a tablet rather than a laptop computer?" is essentially a different question than "How does a tablet computer offer you advantages over a laptop?"

With qualitative inquiry researchers gain critical insight on the lived experience. But this insight is not necessarily rooted in the *why* of life events as much as it is in the aspects of participants' lives that can only be discovered by asking *what, when, where, who, how* – and sometimes, *why*.

Applying the TQF Credibility Component: An IDI Case Study

The <u>Total Quality Framework</u> (TQF) is an approach to qualitative research design that integrates quality principles without stifling the <u>fundamental and unique</u> <u>attributes of qualitative research</u>. In so doing, the TQF helps qualitative researchers develop critical thinking skills by showing them how to give explicit attention to quality issues related to conceptualization, implementation, analysis, and reporting.

CREDIBILITY Completeness & accuracy of the data Scope (Representation: coverage, sampling, sample size, unit nonresponse) Data Gathering (construct validity, interresearcher reliability, question-answer validity, internal consistency, researcher bias, researcher-participant interaction, item nonresponse) DATA COLLECTION

The following case study offers an example of how many of the concerns of the Credibility (or data collection) component of the TQF were applied to an in-depth interview (IDI) study conducted by **Roller Research**. This case study can be read in its entirety in **Roller & Lavrakas** (2015, pp. 100-103).

Scope

This study was conducted for a large provider of information services associated with nonprofit organizations based in the U.S. The purpose was to

investigate the information needs among current and former users of these information services in order to facilitate the development of "cutting edge" service concepts.

Eighty-six (86) IDIs were conducted among individuals within various grant-making and philanthropic organizations (e.g., private foundations, public charities, and education institutions) who are responsible for the decision to purchase and utilize these information services.

There were two important **considerations in choosing to complete 86 interviews**: (a) the required level of analysis – it was important to be able to analyze the data by the various types of organizations, and (b) practical considerations – the available budget (how much money there was to spend on the research) and time restrictions (the research findings were to be presented at an upcoming board meeting). In terms of mode, 28 IDIs were conducted with the largest, most complex users of these information services, while the remaining 58 interviews were conducted on the telephone.

Participants were stratified by type, size, and geographic location and then selected on an *n*th-name basis across the entire lists of users and former users provided by the research sponsor.

A high degree of **cooperation** was achieved during the recruitment process by way of:

- A preliminary letter sent to all sample members.
- Identification of the research sponsor (whose positive reputation strengthened the credibility of the research).
- A non-monetary incentive consisting of a summary of the research findings, which was highly desired by participants given their interest in knowing how others were using nonprofit information as well as others' reactions to several proposed concepts that were presented during the interviews.
- Utilizing one professional executive recruiter who was highly trained in how to gain access to and cooperation from decision makers. This recruiter shared office space with the researcher to facilitate a close interaction to discuss the scheduling needs of potential interviewees and work out ways to meet these needs to their satisfaction.
- Flexible scheduling, e.g., in-person interviewees were allowed to choose a location for the interview without restrictions, and all interviewees were permitted to select any time – day or night, weekday or weekend – for the interview.

Data Gathering

The researcher/interviewer, with over 30 years of professional experience, developed the interview guide and completed all 86 IDIs. The validity and accuracy of the research results were maximized by:

- Meeting with various managers within the sponsoring organization who had a vested interest in the outcome of the research - e.g., the president and CFO as well as the directors of research, programs, and communications – in order to gain a clear understanding of the research objectives and the constructs to measure.
- Learning as much as possible about the category via websites and literature particular to competitive providers of similar nonprofit information, how organizations use this information, and background details on each of the organizations that were included in the sample.
- Reviewing and deliberating with the sponsoring organization on multiple drafts of the interview guide for both the in-person and telephone IDIs.
- Organizing the <u>interview guide as a "funnel,"</u> moving from broad to narrow topics.

- Prioritizing topics so that the issues of most importance to the research objectives were consistently discussed in every IDI e.g., opinions concerning other types of information providers and the usability of specific features on the research sponsor's website.
- Ensuring that each interviewee was a qualified participant. For instance, making a concerted effort during recruitment to track down the person within each organization that met all screener requirements including being the decision maker and user of nonprofit information.
- Scheduling IDIs at least two to three hours apart so the interviewer did not rush the interviews and allowed the interviewees to talk beyond the 45-minute time commitment (some in-person IDIs ran up to two hours and some telephone IDIs ran an hour or more).
- Building rapport with interviewees early in the process by way of emailing and telephoning recruited individuals to confirm the interview appointment and introduce the interviewer, along with providing contact information for the interviewee to use in order to request a change in the schedule or otherwise communicate with the interviewer. The interviewer also encouraged interviewees to ask questions about the research before, during, and after the IDI.
- Emphasizing at the onset of each interview that, even though the client was openly acknowledged as the sponsor of the research, the interviewee's candid opinions were essential to the success of the study. The interviewer reminded interviewees that she was not affiliated with the sponsoring organization and she had no vested interest in the research outcomes beyond the quality of the data, analysis, and reporting.
- Maintaining an informal reflexive journal in which the interviewer recorded her thoughts and observations of her conduct and that of her participants.

Roller, M. R., & Lavrakas, P. J. (2015). *Applied qualitative research design: A total quality framework approach*. New York: Guilford Press.

The TQF Qualitative Research Proposal: Credibility of Design

A <u>Total Quality Framework</u> (TQF) approach to the qualitative research proposal has been discussed in articles posted elsewhere in *Research Design Review*, notably <u>"A Quality Approach to the Qualitative Research Proposal"</u> (2015) and <u>"Writing Ethics Into Your Qualitative Proposal"</u> (2018). The article presented here focuses on the Research Design section of the TQF proposal and, specifically, the Credibility component of the TQF. The Credibility component has to do with Scope and Data

Gathering. This is a modified excerpt from *Applied Qualitative Research Design: A Total Quality Framework Approach* (Roller & Lavrakas, 2015, pp. 339-340).

Scope

A TQF research proposal clearly defines the target population for the proposed research, the target sample (if the researcher is interested in a particular



subgroup of the target population, e.g., only African American and Hispanic high school seniors in the district who anticipate graduating in the coming spring), how participants will be selected for the study, what they will be asked to do (e.g., set aside school time for an in-depth interview [IDI]), and the general types of questions to which they will be asked to respond (i.e., the content areas of the interview). In discussing Scope, the researcher proposing an IDI study with African American and Hispanic high school students would identify the list that will be used to select participants (e.g., the district's roster of seniors who are expected to graduate); the advantages and drawbacks to using this list (e.g., not everyone on the roster may consider themselves to be African American or Hispanic); the systematic (preferably random) procedure that will be used to select the sample; and the number of students that will be selected as participants, including the rationale for that number and the steps that will be taken to gain cooperation from the students and thereby ideally ensure that everyone selected actually completes an interview (e.g., gaining permission from the school principal to allow students to take school time to participate in the IDI, and from parents/guardians for students under 18 years of age who cannot give informed consent on their own behalf).

Data Gathering

The data-gathering portion of the Research Design section of the proposal highlights the constructs and issues that will be examined in the proposed research. This discussion should provide details of the types of questions that will be asked, observations that will be recorded, or areas of interest that will be listened for in a participant's narrative. If possible, the researcher will include a draft of the research instrument (e.g., the interview or discussion guide, observation grid) in the proposal.

Importantly, the researcher needs to address the potential for biases in the data collection process, particularly potential researcher effects and participants' inability or reluctance to be forthright in their responses. The proposal author should acknowledge the step(s) in the process most susceptible to bias from a TQF perspective, the potential source of the bias, and measures that will be taken to try to mitigate the threat of bias. In the IDI study of minority high school students, for example, the researcher might discuss the potential for inaccurate or incomplete responses from the minority students if African American and Hispanic interviewers are not selected to conduct the interviews. This researcher should also discuss the steps that will be taken to maintain interviewer consistency across all interviews, specifically the interviewer training that will be conducted to ensure a consistent approach. The researcher should also acknowledge the potential for the integrity of the data to be jeopardized and explain what techniques will be used to address this potentiality. So, for example, the proposal for the IDI study of African American and Hispanic students would likely emphasize the importance of building rapport in the early stages of the interviewer—interviewee interaction in order to later gain complete and candid responses. Along with this, the proposal author should outline the rapportbuilding tactics that will be used in the research (e.g., preliminary communication with the students prior to the IDI and active listening skills that include exhibiting interest in the interviewee's comments and using words of encouragement during the entire interview).

Throughout the Scope and Data Gathering subsections, the elements of the TQF should be explicitly and implicitly woven into the text and used to organize the particulars about the data collection methods the researcher proposes to use.

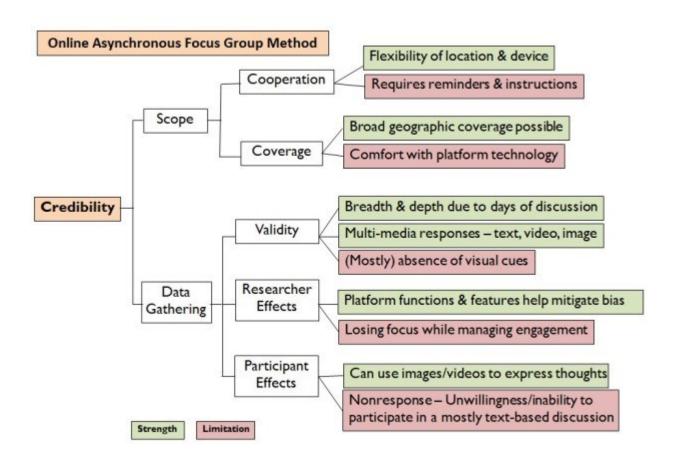
Credibility & the Online Asynchronous Focus Group Method

The <u>Total Quality Framework (TQF)</u> offers researchers a way to think about basic research principles at each stage of the qualitative research process – data collection, analysis, reporting – with the goal of doing something of value with the outcomes (i.e., the usefulness of the research). The first of the four components of the TQF is Credibility which pertains to the data collection phase of a qualitative study. A detailed discussion of Credibility can be found in <u>this 2017 Research Design Review</u> article.

This article – and in similar fashion to the companion articles associated with the other three components of the TQF – explains the chief elements that define Credibility, stating that "credible qualitative research is the result of effectively managing data collection, paying particular attention to the two specific areas of Scope and Data Gathering." Although a great deal of the discussions thus far have been centered on traditional qualitative methods, the increasingly important role of technological solutions in qualitative research makes it imperative that the discussion of Credibility (and the other TQF components) expand to the digital world.

The online asynchronous focus group ("bulletin board") method has been around for a long time. It is clearly an approach that offers qualitative researchers many advantages over the face-to-face mode while also presenting challenges to the integrity of research design. The following presents a snapshot of the online bulletin board focus group method through the lens of the two main ingredients of the TQF Credibility component – Scope and Data Gathering. This snapshot is not an attempt to name all the strengths and limitations associated with the Credibility of the online asynchronous focus group method but rather highlight a few key considerations.

[see the schematic on page 18]



Mobile & Online Qualitative Research: The Good, the Bad, & the Ugly



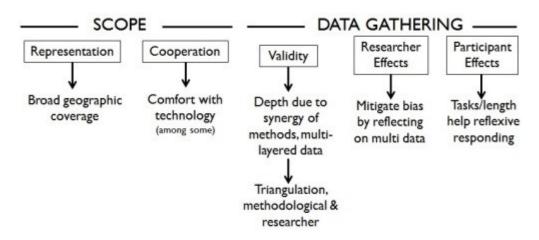
Data quality matters. Regardless of the research method or approach, our ability to say anything meaningful about our research outcomes hinges on the integrity of the data. The greater care the researcher takes to ensure the basic ingredients of "good" research design, the more confident the researcher and importantly the user of the research will be in the recommendations drawn from the research and its ultimate usefulness.

This focus on data quality applies to all research. And although it is most often a topic of discussion among survey researchers, data quality considerations are increasingly (I hope!) a discussion among qualitative researchers as well. Indeed, the underlying validity of our qualitative data is an important consideration regardless of **the researcher's paradigm orientation** or the qualitative method, including the more recent methodological options – that is, mobile and online qualitative research.

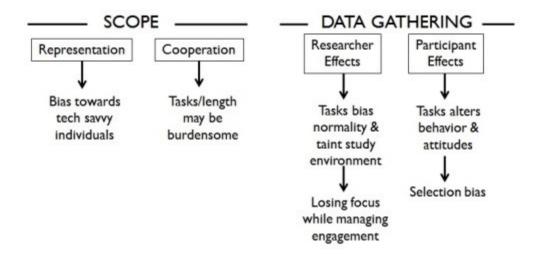
Mobile and online technology – in particular, tech solutions that combine observation with a multimethod/mode approach – offer qualitative researchers new ways to investigate a variety of situations that give them a closer understanding of participants' lived experiences as never before possible. Three such situations are:

- "Day in the life," e.g., to explore daily activities such as daily eating or medication habits, or the mobility patterns among children (Christensen, Mikkelsen, Nielsen, & Harder, 2011).
- "Journey" or decision making, e.g., to explore the path people take to achieve a certain goal such as the journey from a cancer diagnosis through the course of treatment, or the path to purchase among consumers, or how educators make decisions to use the Internet in the classroom and its influence on students' literacy (Karchmer, 2001).
- Specific assignments/tasks, e.g., a "show and tell" study to explore how people prepare a meal using a particular product, or asking patients to show and discuss particular areas within their homes (such as the refrigerator and medicine cabinet) to understand how they cope with their disease (Hancock, 2012).

Regardless of the particular situation under investigation, there are clearly data quality advantages to mobile and online solutions. From the perspective of the **Total Quality Framework's Credibility component** (which pertains to data collection), elements of both Scope and Data Gathering strengthen the quality of mobile and online data. In particular, these tech solutions: expand the researcher's geographic coverage and potentially garner high levels of cooperation among participants who are comfortable with the technology (Scope). These approaches also: add depth to (and the ability to triangulate) the data due to the multifaceted layers of methods and modes, help mitigate researcher bias, and enable participants to engage with the research more fully by way of the various tasks and length of the research process (Data Gathering).



There are, however, a number of ways in which data quality resulting from mobile and online approaches is seriously weakened. Contrary to the idea (shared by some) that these tech solutions are the answer to a host of research design dilemmas – such as the ability to include many (up to 100) participants in a qualitative study, offering participants their most preferred way to participate, and efficient project management (by way of the available platforms) – the we-can-do-it-all thinking around mobile and online methods ignores the negative implications associated with the quality of the data. It would be a gross oversight with detrimental consequences to ignore the fact that: mobile and online solutions bias the sample towards tech savvy segments of the population as well as potentially limit coverage due to reduced cooperation associated with the tasks and length of these studies (Scope). Importantly, the quality of the data is also potentially weakened by: researcher effects associated with impinging on participants' lives and thus tainting the study environment as well as poor study management due to weak multi-tasking skills, as well as participant effects resulting from a Hawthorne-type effect (i.e., altered behavior and attitudes due to the act of participation and the researcher's remote presence) as well as "selection bias" or the participant's control of what is and *is not* shared with the researcher (Data Gathering).



The quality of our qualitative data needs to be assessed at each turn of the research process. This is no less true for newer, technology-based qualitative methods and modes than traditional approaches. Just a few of the data quality considerations associated with these tech solutions have been proposed here.

Christensen, P., Mikkelsen, M. R., Nielsen, T. A. S., & Harder, H. (2011). Children, mobility, and space: Using GPS and mobile phone technologies in ethnographic research. Journal of Mixed Methods Research, 5(3), 227–246.

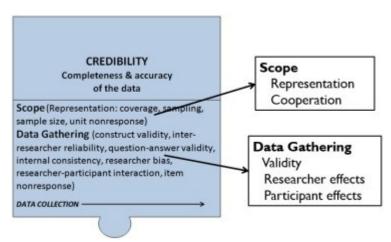
Hancock, K. (2012, October). Online qual guides health care foundation to shift its focus. Quirk's Marketing Research Review, 30–32. Retrieved from http://www.quirks.com/articles/2012/20121006.aspx?searchID=702818743&sort=5&pg=1

Karchmer, R. A. (2001). The journey ahead: Thirteen teachers report how the Internet influences literacy and literacy instruction in their K-12 classrooms. Reading Research Quarterly, 36(4), 442–466.

Image captured from: https://www.scoop.it/t/art-and-craft-by-sunish-sebastian

Qualitative Tech Solutions: Coverage & Validity Considerations

Back in 2018, Research Design
Review posted an article titled
"Five Tech Solutions to
Qualitative Data Collection:
What Strengthens or Weakens
Data Quality?" The focus of this article is on a presentation given in
May 2018 concerning
technological alternatives to
qualitative research data
collection. Importantly, the aim of



the presentation was, not to simply identify different approaches to data collection beyond the in-person and telephone modes but rather, to examine the strengths and limitations of these technological solutions from a data quality – specifically, Credibility – standpoint.

Broadly speaking, technological approaches to qualitative research data gathering offer clear advantages over in-person methods, particularly in the areas of:

- **Representation**, e.g., geographic coverage, potential access to hard-to-reach population segments;
- Cooperation, e.g., convenience and flexibility of time and place for participants, appropriateness for certain demographic segments (18-49 year olds*);
- Validity associated with **data accuracy**, e.g., research capturing in-the-moment experiences do not rely on memory recall;
- Validity associated with the **depth of data**, e.g., capturing multiple contextual dimensions through text, video, and images;
- Validity associated with data accuracy and depth allowing for the **triangulation** of data;
- **Researcher effects**, e.g., mitigated by the opportunity for greater reflection and consistency across research events;
- **Participant effects**, e.g., mitigated by the multiple ways to express thoughts, willingness to discuss sensitive issues, and (possibly) a lower tendency for social desirability responding; and
- Efficient use of **resources** (i.e., time, money, and staff).

There are also potential drawbacks to any technological solution, including those associated with:

- Uneven Internet **access and comfort** with technology among certain demographic groups (e.g., sampling favors "tech savvy" individuals), hard-to-reach and marginalized segments of the population;
- Difficulty in **managing engagement**, including the unique researcher skills and allocation of time required;
- Potential **participant burnout** from researcher's requests for multiple input activities and/or days of engagement. This is a type of participant effect that negatively impacts validity;
- **Nonresponse** due to mode, e.g., unwillingness or inability to participate to a mostly text-based discussion;
- **Data accuracy**, e.g., participant alters behavior in a study observing in-home meal preparation;
- Missing important **visual &/or verbal cues** which may interfere with rapport building and an in-depth exploration of responses;
- Difficulty managing analysis due to lots and lots of data (in volume & formats);
- **Fraud**, misrepresentation "Identity is fluid and potentially multiple on the Internet" (James and Bushner, 2009, p. 35) and people may not share certain images or video that reveal something "embarrassing" about themselves**; and
- Security, confidentiality, anonymity (e.g., data storage, de-identification).

James, N., & Busher, H. (2009). Online interviewing. London: Sage Publications.

^{*} https://www.pewresearch.org/internet/fact-sheet/internet-broadband/

^{** &}lt;a href="https://www.businesswire.com/news/home/20180409006050/en/Minute-Maid-Debuts-New-Campaign-Celebrates-Good">https://www.businesswire.com/news/home/20180409006050/en/Minute-Maid-Debuts-New-Campaign-Celebrates-Good