



Qualitative Research Data Collection: In-the-moment Critical Thinking

10 Articles on
Critical Thinking Skills & Techniques
to Achieve Quality Qualitative Data
During the Collection Process

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The contents of this compilation include a selection of 10 brief articles appearing in *Research Design Review* from 2015-2025 emphasizing in-the-moment critical thinking skills and techniques researchers should apply during a research event (e.g., an in-depth interview, focus group discussion, observation) to maximize the quality and integrity of their qualitative research. These articles represent a small sampling of the articles in *RDR* devoted to critical thinking and a quality approach to qualitative research design and methods. Excerpts and links may be used, provided that the proper citation is given.

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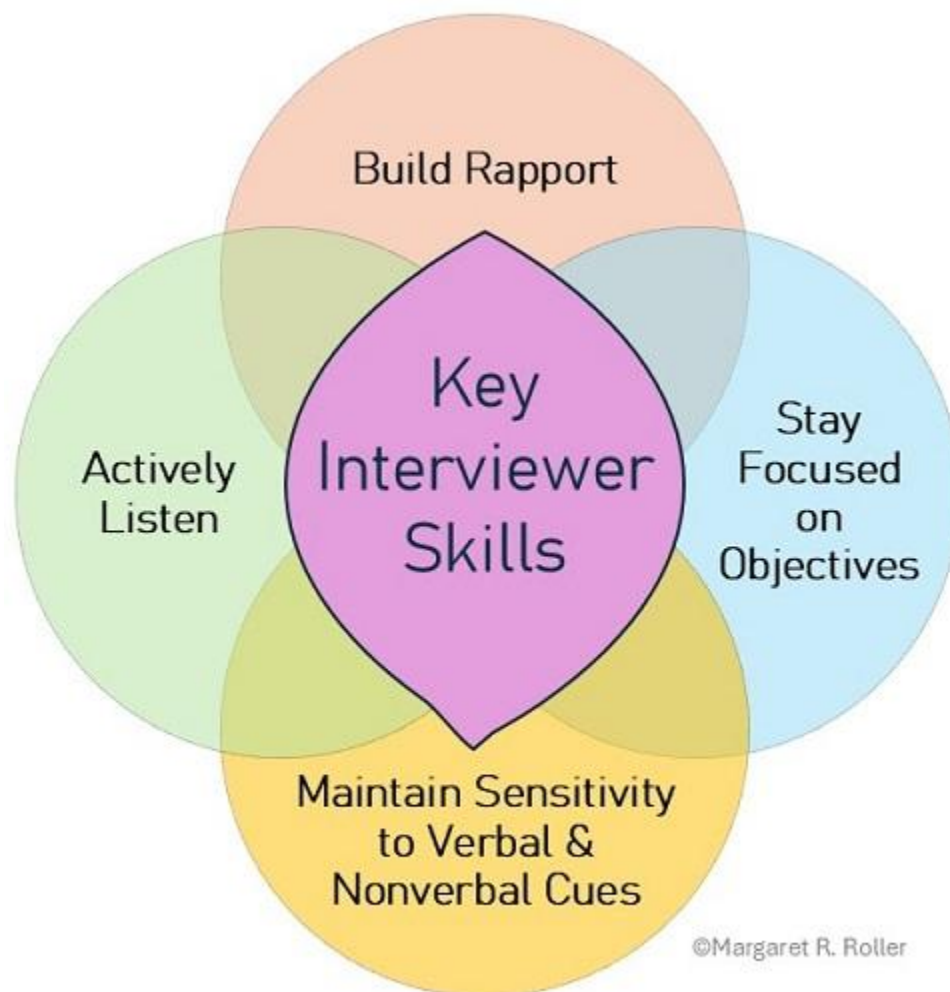
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The In-depth Interview Method: Key Interviewer Skills

Qualitative research and the in-depth interview (IDI) method have been discussed at great length in *Research Design Review*. In 2020, a compilation — [**“The In-depth Interview Method: 12 Articles on Design & Implementation”**](#) — pertaining to various aspects and concepts of in-depth interviewing was published in *RDR*. As stated by Roller & Lavrakas (2015), “regardless of interview format, the skills of the interviewer are among the most important components of the IDI method” (p. 55). Four key interviewer skills concern the techniques that enable the interviewer to effectively build rapport, actively listen, maintain sensitivity to verbal and nonverbal cues, and stay focused on the research objectives. These necessary interviewer skills have been discussed in *RDR*. For example, [**“Towards a Credible In-depth Interview: Building Rapport,”**](#) [**“Can You Hear Me Now? Listening in Qualitative Research,”**](#) and [**“Qualitative Research Design: Matching Constructs With Research Objectives.”**](#)



Adapted from Roller & Lavrakas (2015, pp. 55-56)

Importantly, these skills are married to each other. They do not sit in isolation but rather work together to form a quality approach to in-depth interviewing. **Effective techniques to gaining rapport with participants rely on extraordinary listening skills and the related skill of a finely-tuned sensitivity to verbal and nonverbal cues.** All of these skills are used to the fullest while exercising the fundamental ability to stay focused on the research objectives. Throughout the process of rapport building, listening, and absorption of verbal and nonverbal cues, the interviewer is making a conscious effort to develop contextual meaning as it relates to the research goals. This is how the researcher achieves the ultimate intent of all research, i.e., **Usefulness**.

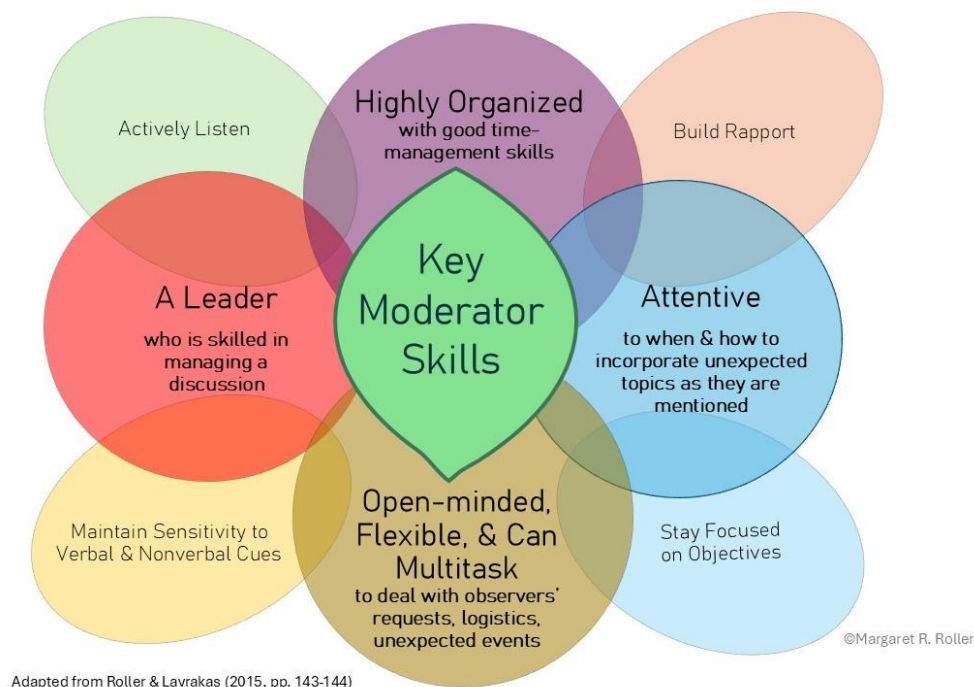
[Roller, M. R., & Lavrakas, P. J. \(2015\). *Applied qualitative research design: A total quality framework approach*. New York: Guilford Press.](#)

The Focus Group Method: Key Moderator Skills

The focus group method has been the subject of many articles in *Research Design Review* since its inception in 2009. A compilation of 18 articles pertaining to the focus group method that appeared in *RDR* from 2010-2020 can be found [here](#). With respect to moderator skills, Roller & Lavarakas (2015) state

Similar to the [in-depth interview, IDI] interviewer, the group moderator must be a professional researcher with a high level of interpersonal skills. However, unlike the role of the IDI interviewer, the role of the focus group moderator requires additional abilities related to the control and facilitation of group dynamics as well as multitasking activities, chiefly in the [in-person] mode, such as responding to the needs of observers and managing logistics at the facility where the discussions are taking place. (p. 143)

As a result, the focus group moderator must be skilled in not only **the four key skills of the IDI interviewer** but also trained on four unique and necessary skills of the focus group moderator. The four key moderator skills relate to being: highly organized, a leader, open-minded and flexible, and attentive. Earlier articles in *RDR* discuss these required skills. For example, **Focus Group Dynamics & Quality Outcomes**, **The Skilled Focus Group Moderator & the Ability to Multitask**, **Building Rapport & Engagement in the Focus Group Method**, **The Social Environment & Focus Group Participants' Willingness to Engage**, and **Seeking Interaction in the Focus Group Method**.



The four key moderator skills do not operate in a vacuum but rather rely heavily on the four additional skills of the IDI interviewer. As such, the IDI interviewer skills — associated with active listening, sensitivity to verbal and nonverbal cues, staying focus on the objectives, and building rapport — work in the background and serve as the foundation on which the moderator implements the distinctive skills required of the focus group method. Building on the skills of the IDI interviewer, the trained focus group moderator is uniquely qualified to gain quality data leading to **useful outcomes** from research relying on group discussions.

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

Ethnography: On-site Observer Skills & Considerations

Ethnography and the observation method have been the subject of many articles in *Research Design Review* in various contexts. **“Ethnography & the Observation Method: 15 Articles on Design, Implementation, & Uses”** is a compilation of 15 *RDR* articles discussing various topics related to quality and design considerations as well as transparency and reporting. Not unlike the **in-depth interview** and **focus group** methods, “for ethnographic research to generate good quality data the person doing the observing must be skilled in a number of ways (Roller & Lavrakas, 2015, p. 179). *RDR* articles pertaining to observer skills include **“Ethnography: Mitigating Observer Bias,”** **“Ethnography: How Observer Inconsistency Impacts Quality Outcomes,”** and **“The Importance of Analytical Sensibilities to Observation in Ethnography.”**

The image below highlights three broad categories of skills and considerations required of the *on-site* observer, i.e., the observer is situated **within the study environment**. These relate to the mechanics or operational aspects of the observation event, the observer’s characteristics (and the extent to which they match or do not match those of the participants), and sensibilities.



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

Making Sense of the Human Experience with Qualitative Research

The following is a modified excerpt of the introduction to [Applied Qualitative Research Design: A Total Quality Framework Approach](#) (Roller & Lavrakas, 2015, pp. 1-2).



Human beings engage in some form of “qualitative research” all the time. This is because there is not a context in which humans engage that does not require some process of taking in (i.e., gathering) information from the environment and developing that information into an interpretive nugget that can then be used to make sense of and react to particular situations. Humans do this so routinely that they are rarely aware of the information-

gathering stages they process, or even their constant and natural proclivities to do so. Although some human beings may be more successful at processing contextual information than others, humans generally do not consciously think about the quality of the information they take in and the quality of the decision-making processes they apply to that information as they go through their daily lives.

As a formal method of inquiry, qualitative research—with its emphasis on the individual and the role that context and relationships play in forming thoughts and behaviors—is at the core of what it means to conduct research with human subjects. **Qualitative research assumes that the answer to any single research question or objective lies within a host of related questions or issues pertaining to deeply seeded aspects of humanity.** A qualitative inquiry into breast cancer treatment, for example, might begin by asking “How do women cope with breast cancer treatment?”, from which the researcher considers any number of relevant personal issues around “coping” and then addresses further and deeper questions, such as “What is the quality of life among women undergoing breast cancer treatment?”, “How do various aspects of this quality of life compare to life before their cancer treatment, before breast surgery, and before breast cancer diagnosis?”, “What words do women use to describe their life experiences and what is the relevance (personal meaning) of these word choices?”, “Which people in these women’s lives have the most impact on their ability to cope?”, and “How strong is their motivation to continue treatment and what is the biggest contributor to this motivation?”

Qualitative research is about making connections. It is about understanding that good research involving human beings cannot be anything but complex, and that delving beyond the obvious or the expedient is a necessary tactic in order to understand how one facet of something adds meaning to some other facet, both of which lead the researcher to insights on this complexity. **A purpose of qualitative research, then, is to “celebrate the moment”—the in-depth interview, the group discussion, the observation, or the life story—and the intricacies revealed from that moment.** Qualitative research celebrates the fact that the complexities and intricacies—the connections—revealed at any one moment may or may not exist in another moment in time, reflecting the ever-changing reality of being human. Qualitative research embraces this reality and, in so doing, savors the nuances inherent in what people say, what they do, and how they think. Identifying, connecting, and finding meaning in these often vague, fleeting qualities of human reality comprise what it means to conduct a qualitative research study.

Image captured from: <https://www.habitsforwellbeing.com/20-quotes-to-inspire-connectedness/>

The Recipe for Quality Outcomes in Qualitative Research Includes a Healthy Dose of Consistency

The impact of bias (in various forms) on research outcomes is well-documented. In *Research Design Review* alone, there are many articles related to this issue; bias in the world of both quantitative — such as [“Ask Someone a Question, You’ll Get an Answer”](#) and [“Accounting for Social Desirability Bias in Online Research”](#) — as well as purely qualitative — [“Selection Bias & Mobile Qualitative Research”](#) and [“Visual Cues & Bias in Qualitative Research”](#) — research. One



of the more significant sources of bias in qualitative research is the researcher, i.e., the in-depth interviewer, focus group moderator, or observer in ethnography. This bias is specifically addressed in the *RDR* article [“Interviewer Bias & Reflexivity in Qualitative Research,”](#) which highlights the importance of the reflexive journal to help address “the bias that most assuredly permeates the socially-dependent nature of qualitative research.”

An interviewer may bias research outcomes in any number of ways. For instance, they may allow personal beliefs or expectations to skew how questions are asked and/or responses are recorded. Or, the interviewer’s physical characteristics (e.g., associated with gender, race, ethnicity, as well as manner of dress and demeanor) may weaken the interviewer-interviewee relationship and an otherwise trusting research environment which is essential to gaining accurate and useful qualitative data.

It is not, however, only interviewer *bias* that can lead to distorted outcomes but also interviewer *inconsistency*. This is an important distinction. An interviewer that has *biased* the results has done something to provoke false information from the interviewee in response to the research questions. **Interviewer inconsistency, on the other hand, does not lead to inaccurate information from the interviewee but rather variation in the data that does not truly exist.** A researcher, for example, conducting face-to-face interviews with public school teachers about their use of electronic media in the classroom may do nothing to elicit erroneous information from the teachers yet produce data suggesting a wide range of media use when, in fact, this is not the reality. The researcher might do this by: 1) not specifying what is included under “electronic media” for some participants; 2) defining it as audio and video recordings and PowerPoint presentations for other participants; and 3) defining electronic media as audio/video recordings, slide presentations, the Internet, television, radio, phone, and computer

devices for yet another set of participants. The interviewer's inconsistent reference to "electronic media" will ultimately produce an unrealistic picture of what actually goes on in the classroom, a picture that suggests a greater variation in the use of electronic media than is true.

A classic example of the perils of inconsistency can be found in research intended to gain participants' reactions to something new — such as a new product, service, or program. In order **to gain an accurate measure of the viability of a new concept, it is critical that the interviewer or focus group moderator introduce this new idea by way of a prepared concept statement that is simple to understand and void of any "sales talk."** This statement must consistently be read to all interviewees or group participants. If not — if some interviewees/participants are read a well-prepared descriptive statement while others are introduced to the new concept via the researcher's off-the-cuff remarks — participants wind up reacting to different versions of the concept and, in the end, the researcher has no way of honestly knowing whether the proposed product, service, or program "has legs."

Inconsistency also presents problems in observational research (i.e., ethnography). Consider an ethnographic study involving the observation of passengers at major train stations on the East Coast, with a particular focus on observations related to 1) passengers waiting for a train, 2) unexpected delays in the train schedules, and 3) passengers boarding a train. An observer who (due to fatigue or for other reasons) fails to consistently observe these three target scenarios — e.g., observes all three situations at some stations, passengers waiting and unexpected delays at other stations, and only passengers boarding at still other stations — jeopardizes the research outcomes and ultimately provides data of little value.

Let's be clear. Qualitative research thrives on the flexibility and nimbleness of the researcher. This is an important quality that allows the researcher to reap all the complexity and context inherent in gaining meaning in qualitative research. But a good qualitative researcher understands that **flexibility is not the same thing as an "anything goes" approach** where no consideration is given to how the data are gathered. Like researcher bias, knowing when and how to avoid inconsistency — and add consistency — in data collection is an essential ingredient in the recipe for a quality qualitative research design.

Image captured from: <http://headache.answers.com>

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., **Credibility**) 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*.

Beyond the Behavior-plus-“why” Approach: Personal Meaning as Insight



Researchers are desperate to understand behavior. Health researchers want to know what leads to a lifetime of smoking and how the daily smoking routine affects the quality of life. Education researchers examine the behavior of model teaching environments and contemplate best practices. Psychologists look for signs of social exclusion among victims of brain injuries. Marketing researchers chase an elusive explanation for consumer behavior, wanting to know product and service preferences in every conceivable category. And, if that were not enough, researchers of all ilk, to a lesser or greater extent, grapple with an often ill-fated attempt to predict (and shape) behaviors to come.

But researchers have come to appreciate that behavior is not enough. It is not enough to simply ask about past behavior, observe current behavior, or capture in-the-moment experiences via mobile. Behavior only tells part of a person’s story and, so, researchers passionately beef-up their research designs to include “why” — focusing on not just *what* people do but *why* they do it. **“Why,” of course, is often phrased as “what,” “how,” or “when” questions** — “What was going on at the time you picked up your first cigarette?” — but, whatever the format, the goal is the same, i.e., to get beyond behavior and understand the motivations, the thinking (conscious or not) that ultimately lead to certain actions.

All of this would be fine and good except that the behavior-plus-“why” approach often fails. Many researchers have been pursuing the explanation and prediction of behavior because the bubbles of the “ah ha!” moments burst upon subsequent new revelations in human behavior.

The behavior-plus-“why” approach fails because it is a transactional approach to understanding the human experience. It reduces what people do — smoke cigarettes, teach in a certain way, show signs of social exclusion, purchase Coke over Pepsi — and their motivations to a stimulus-response arrangement — My parents smoked, so I became a smoker; I experimented with teaching methods until I found something that worked; as a brain-injury victim, I feel socially isolated because people treat me differently; I buy Coke products because I grew up in Atlanta.

The behavior-plus-“why” transactional approach falls short of true insight because it doesn’t account for personal meaning. It doesn’t account for the fact that **each individual associates their own personal meaning to any given behavior or thought**. Yet personal meaning is what researchers strive for to honestly understand what lies beneath behavior or a construct of interest.

- What does the experience of smoking cigarettes mean to you? How does it make you feel? Who do you smoke with? How does it define your sense of being?
- How do you know that a teaching method is “working”? What does it make you think about? What does it mean to you when you feel “success”?
- What does “social exclusion” mean to you personally? How does it manifest itself? What are the ramifications you experience from “social exclusion”? What would you change, if you could, and how would that make things “better”?
- What part of you is satisfied by purchasing Coke products? What role does it play in your life, and how does this role relate to other aspects of your life?

Going beyond the behavior-plus-“why” approach is something I teach in focus group training. In a recent workshop with corporate employees, I tried to instill the idea that there is personal meaning behind every participant comment. At the conclusion of moderator role playing, a trainee expressed her frustration when she asked someone in her group of employees to suggest improvements to the office environment. To the trainee’s horror, the participant suggested adding a water slide to the workplace to provide an element of “fun.” A water slide? Rather than exploring the personal meaning of a water slide for this person, the trainee just ended the group discussion wondering to herself why anyone would want a water slide at the office. What she didn’t know — but then learned — is that it was not a water slide that this person necessarily wanted at the workplace as much as the positive feelings associated with a water slide. It was these positive associations and dimensions that the participant wanted in the work environment that just happened to be articulated as “water slide.”

Finding personal meaning takes time. It **requires concentrated time with research participants to explore and understand their behavior and motivations through their words; exploring what those words mean to them and how those words capture the personal meaning of the thoughts conveyed**. Finding personal meaning also takes time (and creativity) during analysis and interpretation of outcomes, particularly when many participants are involved.

Such an effort expends valuable time, energy, and resources. But it is certainly better than coming away from the research only to recommend that the client add water slides to the workplace.

Image captured at: <http://www.healthychild.net/health-articles/choosing-the-right-water-slide-rentals/>

Individual Thinking in the Focus Group Method

Focus group discussions can be an effective method for learning about a range of attitudes and behavior associated with a particular topic. An important strength of this method is the diversity of perspectives to be gained *as well as* the associated verbal and nonverbal dynamic that ensues among group participants. It is this group



interaction that defines the focus group discussion and makes it a valuable qualitative research method. Two earlier articles in *Research Design Review* – [one from 2018](#) and [another from 2013](#) – discuss group interaction and encourage researchers to hone their skills in fostering participant interaction as well as sharpen their analytical sensibilities of “interactive effects” and the implications of these effects in the interpretations and reporting of the outcomes.

This emphasis on group interaction may leave researchers wondering what, if any, role individual thinking plays in the focus group method. Yet each participant’s thinking about a topic or issue is critical to understanding focus group data. It is, after all, the reason researchers carefully screen and recruit group participants, i.e., to hear about experiences and attitudes that will vary from individual to individual.

This is also why moderators are trained on, not only how to engage participants in an interactive discussion but also, how to “draw out” and hear from each participant, especially the less social or more timid individual. At the end of the day, the moderator’s job is to come away with useful insights pertaining to the research questions that stem from the group interaction *in conjunction with* the moderator’s knowledge of the individual thinking gained from each person in the discussion.

There are two important moments in a focus group (either in-person or online) when the moderator can (and should) capture individual thinking. One of these moments is at the **very start of the discussion** and the other is at the **end of the discussion**. In both instances, the moderator asks participants to privately write (or type) their responses to a few questions specific to the subject matter without the influence from other participants’ discussion or comments. It is in this manner that the moderator

comes to understand the individual thinking among the participants related to the topic which can then be effectively incorporated into the moderator's conduct of the discussion while also adding important new information that might otherwise go undetected.

Image captured from: <https://hingemarketing.com/blog/story/differentiation-strategy-standing-out-among-the-competition>

In-the-moment Question-Response Reflexivity

There are lots of articles discussing question design, focusing on such things as how to mitigate various forms of bias, clearly communicate the intended meaning of the question, and facilitate response. Survey question wording is discussed in this [“tip sheet”](#) from Harvard University as well as in [“Questionnaire Design”](#) from Pew Research Center, and an article in *Research Design Review* discusses the not-so-simple “why” question in qualitative research (see [“Re-considering the Question of ‘Why’ in Qualitative Research”](#)).



Getting the question “right” is a concern of all researchers, but qualitative researchers need to be particularly mindful of the responses they get in return. It is not good enough to use an [interview guide](#) to ask a question, get an answer, and move on to the next question. And, it is often not good enough to ask a question, get an answer, interject one or two probing questions, and move on to the next question. Indeed, one of the toughest skills a qualitative interviewer must learn is how to evaluate a participant’s answer to any given question. This goes way beyond evaluating whether the participant responded in line with the intention of the question or the potential sources of bias. Rather, this broader, much-needed evaluation of a response requires a reflexive, introspective consideration on the part of the interviewer.

Reflexivity is central to a qualitative approach in research methods. It is a topic that is discussed often in *RDR* — see [“Interviewer Bias & Reflexivity in Qualitative Research,”](#) [“Reflections from the Field: Questions to Stimulate Reflexivity Among Qualitative Researchers,”](#) and [“Facilitating Reflexivity in Observational Research: The Observation Guide & Grid”](#) — because of its role in qualitative research design. There are many wonderful papers and studies on reflexivity. A few examples can be found in the August 2017 issue of [Qualitative Psychology](#) which is devoted to reflexivity and includes such thoughtful and insightful articles as Shari Goldstein’s [“Reflexivity in Narrative Research.”](#)

Most accounts on reflexivity focus on the reflexive journal and, specifically, the researcher’s recording of observations related to the participant and the research environment as well as the researcher’s assumptions and beliefs that may have affected

the outcomes. These after-the-fact considerations are essential to the integrity of the research. However, equally essential is the reflexive exercise that researchers practice in situ, i.e., during an in-depth interview (IDI) or group discussion. This **in-the-moment reflection, while in the research environment with the participant(s), is the time when the researcher must think carefully about *what* is being said, the extent to which the researcher *understands* what is being said, and the degree to which this understanding actually *mirrors the participant(s) true intent*.**

Here are a few of the questions the researcher might contemplate throughout an IDI or group discussion:

- Can I explain, in my own words, what was said?
- Can I explain, in my own words, the meaning of what was said as it relates to the research question?
- How much of what I think I understand stems from the participant(s) rather than something I heard from other study participants?
- How much of what I think I understand stems from the participant's meaning rather than my subjective assumptions, beliefs, or personal experiences?
 - What are the words or phrases that I may be misinterpreting because I am contaminating them with my own assumptions, beliefs, or personal experiences?
- Have my emotional reactions to the participant's responses affected (biased) my understanding?
- Can I conclude the research event confident of what I learned from this/these participant(s) or do I need to prolong the event to ask clarifying questions?

It is this kind of in-the-moment reflexive exercise that ensures the integrity and the ultimate usefulness of the qualitative data.

Image captured from: <http://futureofcio.blogspot.com/2015/02/reflection-in-design-thinking.html>

Rapport & Reflection: The Pivotal Role of Note Taking in In-depth Interview Research



Note taking is fundamental to the in-depth interviewing process and an essential interviewer skill. And yet note taking – e.g., why note taking is important, how to take notes, and how to use notes from a completed interview – does not get much attention. Note taking is important – actually, *critical* – to the in-depth interview method because it is about much more than jotting down a participant's comments and responses to the interviewer's

questions.

In fact, **an effective note taker is a more effective interviewer**. This is because

- Taking notes during an interview helps to **focus the interviewer's attention** on the participant's point of view and lived experience relevant to the research question.
- Taking notes helps the interviewer **internalize what is being said** by the participant which in turn helps the interviewer identify seemingly contradictory statements and follow up on new, insightful topic areas that may not appear on the interview guide.
- The interviewer's heightened focused attention and internalization helps to **build rapport and enhances the participant-researcher relationship**.
- The interviewer can add **sidebar notations** while taking notes that add context to what is being discussed or remind the interviewer to follow up on a particular comment.
- Taking notes allows the interviewer to **identify and flag important quotes** made by the participant in the moment when the contextual import of participant's statements can be fully appreciated and noted.

An effective note taker is also better equipped to conduct meaningful analyses of the data, leading to useful outcomes. This is because

- The notes serve as **an immediate resource for reflection**: 1) during the interview – when the interviewer can flip back and forth to consider the participant's earlier comments and ask for clarification as the need arises to fully comprehend and better analyze the participant's point of view – and 2) at the completion of the interview – when the interviewer can quietly review the interview notes and add any informative annotations that will aid analysis.

- The interviewer can use the notes from each interview to **record the participant's attitudes and behavior related to each primary and secondary research question**. Ideally, this should be done within an hour of the interview completion and by way of a spreadsheet of some kind, where the columns consist of key research questions and the rows contain input from each participant. This format allows the researcher to quickly capture interview data when it is fresh on the mind as well as easily review and analyze the data within and across participants.

Importantly, the note taking discussed here pertains to notes *written by hand* (pen [or **smartpen**] on paper) in contrast to tapping notes directly into an electronic device. Research has shown that the use of laptops (for example) is great at creating large volumes of notes (with lots of verbatims) but it also encourages a “mindless” transcription rather than a meaningful engagement with the material. Indeed, **as reported in this research**, individuals who wrote their notes by hand demonstrated “a stronger conceptual understanding and were more successful in applying and integrating the material” compared to those who took notes with their laptops.

Handwritten note taking compels the interviewer to fully engage with the participant and fosters highly reflective behavior in the researcher. You might say that, in this way, note taking helps to maintain the all-important participant-researcher relationship throughout data collection and analysis; a relationship that can be too easily lost when utilizing more mechanical processes such as the reliance on audio recordings and data transcripts.

Image captured from: <https://www.skipprichard.com/power-handwritten-note/>