

John W. Creswell
Dana L. Miller

Determining Validity in Qualitative Inquiry

WRITING ABOUT VALIDITY IN QUALITATIVE inquiry is challenging on many levels. Multiple perspectives about it flood the pages of books (e.g., Lincoln & Guba, 1985; Maxwell, 1996; Merriam, 1998; Schwandt, 1997) and articles and chapters (e.g., Altheide & Johnson, 1994; Lather, 1993; Maxwell, 1992). In these texts, readers are treated to a confusing array of terms for validity, including authenticity, goodness, verisimilitude, adequacy, trustworthiness, plausibility, validity, validation, and credibility. Various authors have constructed diverse typologies of validity (e.g., Maxwell's five types, 1992; Lather's four frames, 1993; and Schwandt's four positions, 1997). It is little wonder that Donmoyer (1996), who wrote an editorial on validity in the *Educational Researcher*, commented on the diverse perspectives of validity by contrasting Miles and Huberman's (1994) "traditional conception of validity" with Lather's (1993) "ironic validity" (p. 21). Novice researchers, in particular, can become increasingly perplexed in attempting to understand the notion of validity in qualitative inquiry.

There is a general consensus, however, that qualitative inquirers need to demonstrate that their studies are credible. To this end, several authors identify common procedures for establishing validity in

qualitative projects (e.g., Lincoln & Guba, 1985; Maxwell, 1996; Merriam, 1998). Qualitative researchers routinely employ member checking, triangulation, thick description, peer reviews, and external audits. Researchers engage in one or more of these procedures and report results in their investigations.

As helpful as they are, these discussions about validity procedures provide little guidance as to why one procedure might be selected for use by researchers over other procedures. In this article, we suggest that the choice of validity procedures is governed by two perspectives: the lens researchers choose to validate their studies and researchers' paradigm assumptions. We advance a two-dimensional framework that can help researchers identify appropriate validity procedures for their studies.

The use of this framework can provide a rationale for choice of a procedure beyond what the setting and participants will bear and what colleagues and faculty advisers recommend. The framework helps researchers select procedures based on who assesses the credibility of a study and their own philosophical positions toward qualitative inquiry. We begin by discussing the two perspectives of the framework and then identify nine validity procedures that fit the framework. We end by describing how the lens and paradigm assumptions help guide our choice of validity procedures.

In this discussion we define validity as how accurately the account represents participants' realities of the social phenomena and is credible to

John W. Creswell is professor of educational psychology at the University of Nebraska-Lincoln; Dana L. Miller is assistant professor of research methods at Doane College, Lincoln, Nebraska.

them (Schwandt, 1997). Procedures for validity include those strategies used by researchers to establish the credibility of their study. Throughout this discussion, we make the assumption that validity refers not to the data but to the inferences drawn from them (Hammersley & Atkinson, 1983).

The Lens Used by the Researcher

When we refer to the lens, we mean that the inquirer uses a viewpoint for establishing validity in a study. Qualitative inquirers bring to their studies a different lens toward validity than that brought to traditional, quantitative studies.

In quantitative research, investigators are most concerned about the specific inferences made from test scores on psychometric instruments (i.e., the construct, criterion, and content validity of interpretations of scores) (AERA, APA, & NCME, 1982) and the internal and external validity of experimental and quasi-experimental designs (Campbell & Stanley, 1966). In contrast, qualitative researchers use a lens not based on scores, instruments, or research designs but a lens established using the views of people who conduct, participate in, or read and review a study.

For example, one lens to determine the credibility of a study is the particular lens of the researcher. Researchers determine how long to remain in the field, whether the data are saturated to establish good themes or categories, and how the analysis of the data evolves into a persuasive narrative. Patton (1980) describes this process as one where qualitative analysts return to their data "over and over again to see if the constructs, categories, explanations, and interpretations make sense" (p. 339). Altheide and Johnson (1994) refer to it as "validity-as-reflexive-accounting" (p. 489) where researchers, the topic, and the sense-making process interact.

Qualitative inquirers may use a second lens to establish the validity of their account: the participants in the study. The qualitative paradigm assumes that reality is socially constructed and it is what participants perceive it to be. This lens suggests the importance of checking how accurately participants' realities have been represented in the final account. Those who employ this lens seek to actively involve participants in assessing whether

the interpretations accurately represent them. A third lens may be the credibility of an account by individuals external to the study. Reviewers not affiliated with the project may help establish validity as well as various readers for whom the account is written.

Paradigm Assumptions

The lens researchers use—their own, study participants, or individuals external to the project—is not the only perspective that governs the choice of validity procedures. Researchers' paradigm assumptions or worldviews (Guba & Lincoln, 1994) also shape their selection of procedures. As suggested by Ratcliffe (1983),

Quite different notions of what constitutes validity have enjoyed the status of dominant paradigm at different times, in different historical contexts, and under different prevailing modes of thought and epistemology. (p. 158)

Three paradigm assumptions, labeled by Guba and Lincoln (1994) as postpostivist, constructivist, and critical influence researchers' choice of validity procedures. These assumptions have been associated with different historical moments in the evolution of qualitative inquiry (Denzin & Lincoln, 1994). A brief overview of these paradigm assumptions is advanced here.

The postpostivist researcher assumes that qualitative research consists of rigorous methods and systematic forms of inquiry. Identified by Denzin and Lincoln as the "modernist" phase of qualitative inquiry (1994, p. 8), this philosophical perspective emerged in social science research during the 1970s and continues today. Individuals embracing the postpostivist position both recognize and support validity, look for quantitative equivalence of it, and actively employ procedures for establishing validity using specific protocols. Maxwell (1996), in *Qualitative Research Design: An Interactive Approach*, for example, exemplifies postpostivist assumptions toward qualitative validity.

The constructivist or interpretive position emerged during the period of 1970 to 1987 (Denzin & Lincoln, 1994), and it is reflected in stances toward validity today. Constructivists believe in pluralistic, interpretive, open-ended, and contextualized (e.g., sensitive to place and situation) perspectives

toward reality. The validity procedures reflected in this thinking present criteria with labels distinct from quantitative approaches, such as trustworthiness (i.e., credibility, transferability, dependability, and confirmability), and authenticity (i.e., fairness, enlarges personal constructions, leads to improved understanding of constructions of others, stimulates action, and empowers action). The classical work by Lincoln and Guba, *Naturalistic Inquiry* (1985), provides extensive discussions about these forms of trustworthiness and authenticity.

A third paradigm assumption is the critical perspective. This perspective emerged during the 1980s as the "crisis in representation" (Denzin & Lincoln, 1994, p. 9). As a challenge and critique of the modern state, the critical perspective holds that researchers should uncover the hidden assumptions about how narrative accounts are constructed, read, and interpreted. What governs our perspective about narratives is our historical situatedness of inquiry, a situatedness based on social, political, cultural, economic, ethnic, and gender antecedents of the studied situations. The implication for validity of this perspective is that validity is called into question, its assumptions interrogated and challenged, and the researchers need to be reflexive and disclose what they bring to a narrative.

Richardson (1994) uses the metaphor of a crystal as an image for validity: "Crystals are prisms that reflect externalities and refract within themselves. . . . What we see depends on our angle of repose" (p.

522). To this end, researchers engage in validity procedures of self-disclosure and collaboration with participants in a study. These procedures help to minimize further the inequality that participants often feel. For example, Carspecken's *Critical Ethnography in Educational Research* (1996) reports validity procedures for tracking bias and interviews with oneself as ways for researchers to be situated in a study.

Validity Within Lens and Paradigms

As shown in Table 1, we use the lens and paradigm assumptions to create a two-dimensional framework for locating nine different types of validity procedures. The discussion now turns to these nine procedures with a brief definition of each, their location within a lens and paradigm perspective, and approaches for implementing each procedure. This list is not exhaustive but includes those procedures commonly used and cited in qualitative literature.

Triangulation

Triangulation is a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study. The term comes from military navigation at sea where sailors triangulated among different distant points to determine their ship's bearing (Jick, 1979). Denzin (1978) identified four types of triangulation: across data

Table 1
Validity Procedures Within Qualitative Lens and Paradigm Assumptions

Paradigm assumption/Lens	Postpositivist or Systematic Paradigm	Constructivist Paradigm	Critical Paradigm
Lens of the Researcher	Triangulation	Disconfirming evidence	Researcher reflexivity
Lens of Study Participants	Member checking	Prolonged engagement in the field	Collaboration
Lens of People External to the Study (Reviewers, Readers)	The audit trail	Thick, rich description	Peer debriefing

sources (i.e., participants), theories, methods (i.e., interview, observations, documents), and among different investigators.

As a validity procedure, triangulation is a step taken by researchers employing only the researcher's lens, and it is a systematic process of sorting through the data to find common themes or categories by eliminating overlapping areas. A popular practice is for qualitative inquirers to provide corroborating evidence collected through multiple methods, such as observations, interviews, and documents to locate major and minor themes. The narrative account is valid because researchers go through this process and rely on multiple forms of evidence rather than a single incident or data point in the study.

Disconfirming evidence

A procedure closely related to triangulation is the search by researchers for disconfirming or negative evidence (Miles & Huberman, 1994). It is the process where investigators first establish the preliminary themes or categories in a study and then search through the data for evidence that is consistent with or disconfirms these themes. In this process, researchers rely on their own lens, and this represents a constructivist approach in that it is less systematic than other procedures and relies on examining all of the multiple perspectives on a theme or category.

In practice, the search for disconfirming evidence is a difficult process because researchers have the proclivity to find confirming rather than disconfirming evidence. Further, the disconfirming evidence should not outweigh the confirming evidence. As evidence for the validity of a narrative account, however, this search for disconfirming evidence provides further support of the account's credibility because reality, according to constructivists, is multiple and complex.

Researcher reflexivity

A third validity procedure is for researchers to self-disclose their assumptions, beliefs, and biases. This is the process whereby researchers report on personal beliefs, values, and biases that may shape their inquiry. It is particularly important for researchers to acknowledge and describe their enter-

ing beliefs and biases early in the research process to allow readers to understand their positions, and then to bracket or suspend those researcher biases as the study proceeds. This validity procedure uses the lens of the researcher but is clearly positioned within the critical paradigm where individuals reflect on the social, cultural, and historical forces that shape their interpretation.

Researchers might use several options for incorporating this reflexivity into a narrative account. They may create a separate section on the "role of the researcher," provide an epilogue, use interpretive commentary throughout the discussion of the findings, or bracket themselves out by describing personal experiences as used in phenomenological methods (Moustakas, 1994).

Member checking

With member checking, the validity procedure shifts from the researchers to participants in the study. Lincoln and Guba (1985) describe member checks as "the most crucial technique for establishing credibility" (p. 314) in a study. It consists of taking data and interpretations back to the participants in the study so that they can confirm the credibility of the information and narrative account. With the lens focused on participants, the researchers systematically check the data and the narrative account.

Several procedures facilitate this process. A popular strategy is to convene a focus group of participants to review the findings. Alternatively, researchers may have participants view the raw data (e.g., transcriptions or observational field notes) and comment on their accuracy. Throughout this process, the researchers ask participants if the themes or categories make sense, whether they are developed with sufficient evidence, and whether the overall account is realistic and accurate. In turn, researchers incorporate participants' comments into the final narrative. In this way, the participants add credibility to the qualitative study by having a chance to react to both the data and the final narrative.

Prolonged engagement in the field

Another validity procedure is for researchers to stay at the research site for a prolonged period

of time. Fetterman (1989) contends that "working with people day in and day out for long periods of time is what gives ethnographic research its validity and vitality" (p. 46). During repeated observation, the researchers build trust with participants, find gatekeepers to allow access to people and sites, establish rapport so that participants are comfortable disclosing information, and reciprocate by giving back to people being studied. This lens is focused on gaining a credible account by building a tight and holistic case.

Being in the field over time solidifies evidence because researchers can check out the data and their hunches and compare interview data with observational data. It is not a process that is systematically established, but constructivists recognize that the longer they stay in the field, the more the pluralistic perspectives will be heard from participants and the better the understanding of the context of participant views. In practice, prolonged engagement in the field has no set duration, but ethnographers, for example, spend from 4 months to a year at a site.

Collaboration

Credible data also come from close collaboration with participants throughout the process of research. Collaboration means that the participants are involved in the study as co-researchers or in less formal arrangements. This validity lens is one of building the participant's view into the study. It belongs to a critical paradigm perspective because the intent of the process is to respect and support participants in a study, not further marginalize them.

In practice, collaboration may assume multiple forms. For example, participants may help form the research questions, assist with data collection and analysis, and be involved in writing the narrative account. Some qualitative researchers may share the profits, such as book royalties or co-authorship publication rights. By actively involving participants in their studies, qualitative inquirers add further credibility to their narrative accounts.

The audit trail

Now the lens for establishing validity shifts again. The credibility of a study is established by

turning to individuals external to the project, such as auditors—formally brought into the study—or readers who examine the narrative account and attest to its credibility. In establishing an audit trail, researchers provide clear documentation of all research decisions and activities. They may provide evidence of the audit trail throughout the account or in the appendices. Researchers may also use an external auditor to review their study. The goal of a formal audit is to examine both the process and product of the inquiry, and determine the trustworthiness of the findings.

Lincoln and Guba (1985) use the analogy of a fiscal audit to describe this process. The audit is often used in formal studies, such as in dissertations, particularly when committee members are trained quantitatively and may be skeptical about qualitative studies. Certain audiences appreciate the rigor of the audit process, and the lens for establishing credibility becomes someone external to the project. It is a systematic procedure in that the reviewer writes an analysis after carefully studying the documentation provided by the researcher.

An audit trail is established by researchers documenting the inquiry process through journaling and memoing, keeping a research log of all activities, developing a data collection chronology, and recording data analysis procedures clearly. The external auditor examines this documentation with the following questions in mind: Are the findings grounded in the data? Are inferences logical? Is the category structure appropriate? Can inquiry decisions and methodological shifts be justified? What is the degree of researcher bias? What strategies were used for increasing credibility? (Schwandt & Halpern, 1988). Through this process of documenting a study and a review of the documentation by an external auditor, the narrative account becomes credible.

Thick, rich description

Another procedure for establishing credibility in a study is to describe the setting, the participants, and the themes of a qualitative study in rich detail. According to Denzin (1989), "thick descriptions are deep, dense, detailed accounts. . . . Thin descriptions, by contrast, lack detail, and simply report facts" (p. 83). The purpose of a thick description is that it

creates verisimilitude, statements that produce for the readers the feeling that they have experienced, or could experience, the events being described in a study. Thus, credibility is established through the lens of readers who read a narrative account and are transported into a setting or situation.

To use this procedure for establishing credibility, researchers employ a constructivist perspective to contextualize the people or sites studied. The process of writing using thick description is to provide as much detail as possible. It may involve describing a small slice of interaction, experience, or action; locating individuals in specific situations; bringing a relationship or an interaction alive between two or more persons; or providing a detailed rendering of how people feel (Denzin, 1989).

With this vivid detail, the researchers help readers understand that the account is credible. Rich description also enables readers to make decisions about the applicability of the findings to other settings or similar contexts.

Peer debriefing

A peer review or debriefing is the review of the data and research process by someone who is familiar with the research or the phenomenon being explored. A peer reviewer provides support, plays devil's advocate, challenges the researchers' assumptions, pushes the researchers to the next step methodologically, and asks hard questions about methods and interpretations (Lincoln & Guba, 1985).

The lens for establishing credibility is someone external to the study, and a critical paradigm is operating because of the close collaboration between the external reviewer and the qualitative researcher. This procedure is best used over time during the process of an entire study. Peer debriefers can provide written feedback to researchers or simply serve as a sounding board for ideas. By seeking the assistance of peer debriefers, researchers add credibility to a study.

Positioning Ourselves

Our approach is to use several validity procedures in our studies. Certainly some strategies are easier to use than others, particularly those in-

herent in the study design, such as triangulation of methods, prolonged observations in the field, and the use of thick, rich descriptions. In deciding to use a formal audit or peer debriefer, researchers should consider their audiences, the availability of such individuals, and the expense of using them. Member checking is always important as well as keeping research logs to document the rigor of our research processes. When faced with students or faculty committees that seek rigor and a systematic review of procedures, the process of establishing a clear audit trail is most important.

As we review the nine validity procedures, we acknowledge the importance of all three lenses and that their emphasis in a study will vary depending on the project, the audience for whom we are writing, and the people available to provide an assessment of our project. Our primary lens, however, is always that of the participants in a study, and we have become more reflexive in our studies, acknowledging the inseparableness of the researcher and the process of inquiry.

As for our paradigm stances, we most closely align ourselves with the use of systematic procedures, employing rigorous standards and clearly identified procedures (e.g., Creswell, 1998). However, we also resonate with the critical perspective and engage in collaborative research practices that are respectful of the individuals we study (e.g., Miller, Creswell, & Olander, 1998). What is most important is that the credibility of the account be conveyed in a qualitative study. We suggest that the use of validity procedures requires thinking beyond specific procedures—to acknowledge the lens being employed in a study and the paradigm assumptions of the researchers.

References

- Altheide, D.L., & Johnson, J.M. (1994). Criteria for assessing interpretive validity in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 485-499). Thousand Oaks, CA: Sage.
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1982). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- Campbell, D.T., & Stanley, J.C. (1966). *Experimental and quasi-experimental designs for research*. In

- N.L. Gage, *Handbook of research on teaching* (pp. 1-76). Chicago, IL: Rand-McNally.
- Carspecken, P.F. (1996). *Critical ethnography in educational research: A theoretical and practical guide*. New York: Routledge.
- Creswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Denzin, N.K. (1978). *The research act: A theoretical orientation to sociological methods* (2nd ed.). New York: McGraw-Hill.
- Denzin, N.K. (1989). *Interpretive interactionism*. Newbury Park, CA: Sage.
- Denzin, N.K., & Lincoln, Y.S. (1994). Introduction: Entering the field of qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1-17). Thousand Oaks, CA: Sage.
- Donmoyer, R. (1996). Educational research in an era of paradigm proliferation: What's a journal editor to do? *Educational Researcher*, 25(2), 19-25.
- Fetterman, D.M. (1989). *Ethnography: Step by step* (Applied Social Research Methods Series, No. 17). Newbury Park, CA: Sage.
- Guba, E.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Hammersley, M., & Atkinson, P. (1983). *Ethnography: Principles in practice* (2nd ed.). New York: Routledge.
- Jick, T.D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24, 602-611.
- Lather, P. (1993). Fertile obsession: Validity after poststructuralism. *The Sociological Quarterly*, 34, 673-693.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Maxwell, J.A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62, 279-300.
- Maxwell, J.A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.
- Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Newbury Park, CA: Sage.
- Miller, D.L., Creswell, J. W., & Olander, L.S. (1998). Writing and retelling multiple ethnographic tales of a soup kitchen for the homeless. *Qualitative Inquiry*, 4, 469-491.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Patton, M.Q. (1980). *Qualitative evaluation methods*. Newbury Park, CA: Sage.
- Ratcliffe, J.W. (1983). Notions of validity in qualitative research methodology. *Knowledge: Creation, Diffusion, Utilization*, 5(2), 147-167.
- Richardson, L. (1994). Writing: A method of inquiry. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 516-529). Thousand Oaks, CA: Sage.
- Schwandt, T.A. (1997). *Qualitative inquiry: A dictionary of terms*. Thousand Oaks, CA: Sage.
- Schwandt, T.A., & Halpern, E.S. (1988). *Linking auditing and metaevaluation: Enhancing quality in applied research*. Newbury Park, CA: Sage.

TIP