Grounded Theory Research and Theory Building

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Chapter 3

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The problem and the solution. A challenging mandate recently advanced by human resource development (HRD) scholars and practitioners has been the development of theory with clear implications for practice. The grounded theory research approach presents promising possibilities for the development of theoretical frameworks that emerge from research situated in practice and enhance the HRD theorist–HRD practitioner partnership in the process of theory building.

The objective of this chapter is to outline the general tenets of and approach to grounded theory research and their relationship to theory building. First, the definition and foundations of grounded theory research are detailed. Second, a model and outline of the process of grounded theory research follow. Third, key aspects for the evaluation of grounded theory research are presented along with human resource development (HRD)–related examples of grounded theory research. The final sections discuss challenges, limitations, and possibilities for the use of grounded theory research for theory building in HRD and other applied disciplines.

What Is Grounded Theory?

Grounded theory is a relatively new approach to research originally defined as "the discovery of theory from data" (Glaser & Strauss, 1967, p. XX). In their seminal work *The Discovery of Grounded Theory*, the originators of grounded theory, Barony Glaser and Anselm Strauss, described the research process as the discovery of theory through the rigors of social research. A more detailed definition forwarded by Strauss and Corbin (1990) is as follows:

> A grounded theory is one that is inductively derived from the study of the phenomenon it represents. That is, it is discovered, developed and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis and theory stand in reciprocal relationship to one another. (p. 23)

Grounded theory research is discovered empirically, through induction, not deduction. The focus of grounded theory research, on support from evidence,

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promises to develop theories that minimally fit the immediate situation being addressed. The responsiveness of grounded theory research is aimed at contextual values and not merely the values of the investigator. Grounded theory research involves the formulation of local understandings that without inquiry by the researcher remain implicit and unexplained (Lincoln & Guba, 1985).

Although it has been noted that each grounded theory developed might well be subject to contextual influences, such as time and culture, the introduction of grounded theory research presented possibilities for generalizable findings. An emphasis for Glaser and Strauss (1967) was the importance of theory fitting the situation being researched and that the constructed theory had utility once developed. The founders of grounded theory research argued that the development of a rigorous theory was most likely when it emerged from a thorough analysis of contextual data. The aim was to establish a very different and advanced way of doing social research, with its own distinctive goals and methodology.

Because of this research approach's assumption that theory is "discovered from data" gathered in the process of research, there has been an emphasis on setting aside "preconceived" notions prior to and during theory building. Glaser and Strauss (1967) argued that the initial decisions regarding grounded theory research are "not based on a preconceived theoretical framework" (p. 45) of the phenomenon about which the researcher wants to theorize. A general understanding of the phenomenon under investigation is considered sufficient for the initiation of this type of research. Having established a problem or topic in general terms and chosen a site where the research question could be examined more closely, evidence is allowed to accumulate by the researcher, resulting in an "emerging" theory. To develop this theory, early activities by the researcher involve the identification of "categories" capturing uniformities in the data and then identifying compelling properties and dimensions of the data (Dey, 1999).

Glaser and Strauss (1967) emphasized that researchers must pay special attention to their "theoretical sensitivity," or the relevance of categories as they emerged from data comparisons. The researcher establishes emerging impressions from the evidence, conceptualizes the data, and then analyzes emerging relationships between concepts. Theoretical sensitivity is aided somewhat by the comprehension of existing theories. More important, theoretical sensitivity involves repetition in data collection and analysis and a refusal to focus on any single theoretical perspective in advance of those concepts generated by the evidence alone (Dey, 1999). Therefore, an appropriate approach is for the researcher to initially ignore related literature and existing theory to reduce the likelihood of contamination of the data with existing or biased concepts. This does not mean that existing theories be ignored altogether but rather that they be set aside with the possibility for future application as the analysis progresses. If warranted by the analysis

later in the study, the researcher can apply existing research at a subsequent point in the research process. "A discovered, grounded theory, then, will tend to combine mostly concepts and hypotheses that have emerged from the data with some existing ones that are clearly useful" (Glaser & Strauss, 1967, p. 46). The essence of this reversal from the typical deductive-to-inductive approach to research was established to avoid exploring of the phenomenon on the predispositions in existing literature.

By using popular notions forwarded by Kuhn (1962), "Glaser and Strauss pitted the agile, young Davids of inductive research against the cumbersome, violent, and dull Goliaths of deductive research" (Orton, 1997, p. 421). Glaser and Strauss (1967) implied that deductive researchers are caught in a narrow, unproductive, and rudimentary practice, whereas inductive researchers are pushing against existing paradigms to establish new viewpoints and perspectives. By the mid-1980s, many social scientists incorporated Glaser and Strauss's perspectives regarding the need to expand beyond deductive research to inductive research.

Health care is an interesting example regarding the growth of grounded theory research. Performing a literature search, using keywords *nursing* and *grounded theory*, Benoliel (1996) reported a sharp increase in articles related to grounded theory research in recent years—growing from 5 studies in 1980 to 1984 to 225 for the years of 1995 to 1997. There is also evidence that grounded theory research has been used increasingly in many other fields of study (Dey, 1999; Locke, 2001). According to Denzin (1994), "the grounded theory [research] perspective is the most widely used qualitative interpretive framework in the social sciences today" (p. 508).

The Process of Grounded Theory Research

Although maintaining many of the traditional stages of research—plan, data collection, analysis, and reporting—the creation of grounded theory is not an entirely linear process. Grounded theory research is commonly accepted to be holistic, naturalistic, and inductive. Because of the relative youth of the approach and the active influence of the originators, this discussion naturally refers to the original writings of Glaser and Strauss. It is recommended that those interested in using grounded theory research also develop specific awareness regarding current debates (see Dey, 1999; Glaser, 1978, 1992; Strauss, 1987; Strauss & Corbin, 1990, 1998). Although considerable debate has ensued among those practicing and writing about grounded theory research (including disagreement between the founders of the approach), many of the assumptions underlying grounded theory remain resilient. Creswell (1998) suggested that the following assumptions about grounded theory research are widely shared:

- The aim of grounded theory research is to generate or discover a theory;
- the researcher has to set aside theoretical ideas to allow a "substantive" theory to emerge;
- theory focuses on how individuals interact in relation to the phenomenon under study;
- theory asserts a plausible relation between concepts and sets of concepts;
- theory is derived from data acquired through fieldwork, interviews, observations, and documents;
- data analysis is systematic and begins as soon as data become available;
- data analysis proceeds through identifying categories and connecting them;
- further data collection (or sampling) is based on emerging concepts;
- these concepts are developed through constant comparison with additional data;
- data collection can stop when new conceptualizations emerge;
- data analysis proceeds from "open coding" (identifying categories, properties, and dimensions) through "axial coding" (examining conditions, strategies, and consequences) to selective coding around an emerging story line; and
- the resulting theory can be reported in a narrative framework or as a set of propositions.

Similar to traditional theory, and unlike most other naturalistic modes of inquiry, theory development from grounded theory research has been identified as having the capacity to predict. Grounded theory may also produce/enable the identification of hypotheses for potential testing. The theoretical product of grounded theory research can claim a basis from the context in which the phenomenon under examination originated.

The following steps (depicted in Figure 1) outline the process of grounded theory research.

1. initiating research
2. data selection
3. initiation and ongoing data collection
4. data analysis
5. concluding the research

Although the steps outlined may appear to be characteristic of other research frameworks, the process involved in the interchange between data collection and analysis is unique to grounded theory research. The discussion of these five research steps assumes that the researcher has already clarified a general focus for investigation.

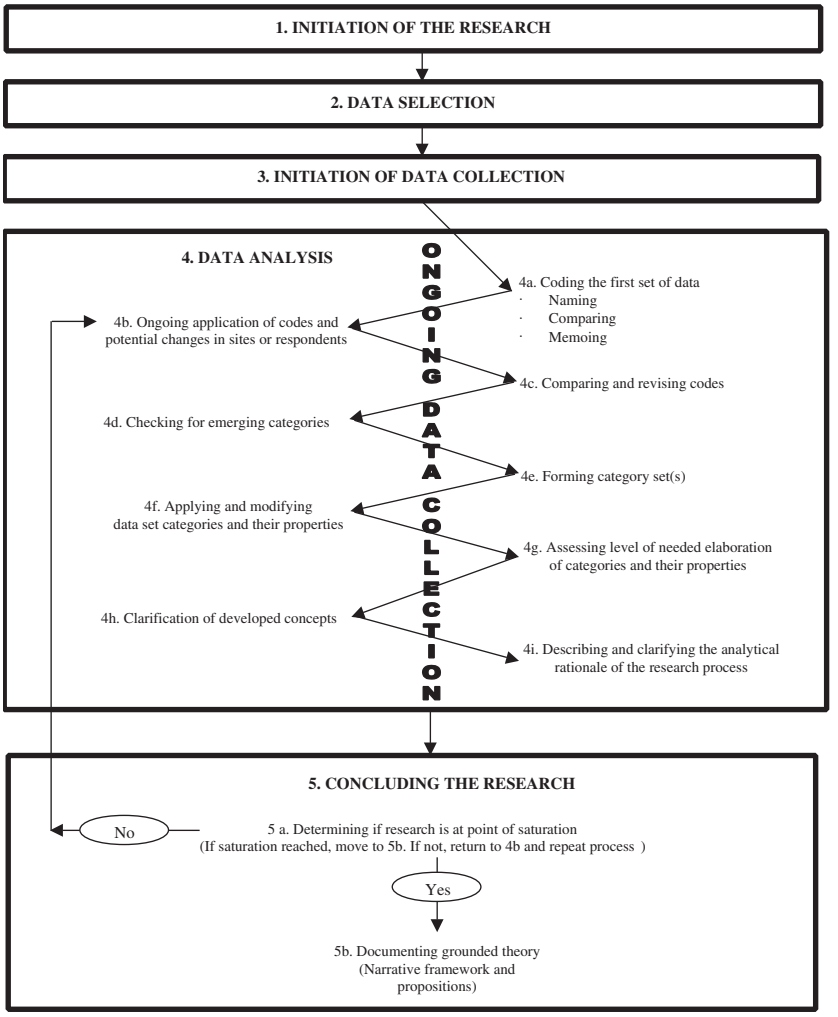

FIGURE 1: The Process of Grounded Theory–Building Research

Initiating Research

The initiation of grounded theory research first involves the selection of an area of inquiry by the researcher and a suitable site for study. An area of inquiry can be described in a variety of ways or levels, including as a specific phenomenon, a place or location, or a context. As previously indicated, it is important that the researcher avoid predispositions or preconceptions of the

phenomenon. The literature in the area under investigation is ignored typically until later on in the study. From the beginning, the researcher should be focused on relaying initial observations and maintaining a "theoretical sensitivity" for the development of categories emerging from the data and then relating them to categories (Connell & Lowe, 1997).

For example, a researcher may wish to explore the impact of organization-wide layoffs on work teams. Time spent by the researcher initiating the study involves consideration of how the research question can be clearly worded and communicated, a brainstorm regarding the types of data that could be examined to aid in the exploration, and the identification and contacting of potential research sites to begin the inquiry. The researcher must spend careful time reflecting on what is intended by the research and how the research will be framed. In addition, the researcher must begin with an awareness of the context of the research by considering such factors as cultural, social, organizational, and interpersonal influences. Regardless of the starting point, the researcher must remain open to the possibility of the research process presenting ongoing variation regarding the sites or participants involved in the study.

Data Selection

Data selection involves the location and identification of potential data sources associated with the research question. "Beyond the decisions concerning initial collection of data, further collection cannot be planned in advance of emerging theory" (Glaser & Strauss, 1967, p. 47). A specific plan for sampling cannot be clearly developed in the initial stages due to the predisposition that sampling decisions should be informed theoretically. Therefore, ongoing decisions about the direction of data collection are dependent on the emergence of categories and grounded theory. The founders of grounded theory research emphasized that data selection is a flexible and dialectic process. They emphasized that "theoretical sampling" involves data collection that is done in relation to the budding analysis.

> Theoretical sampling is the process of data collection for generating theory whereby the analyst jointly collects, codes and analyzes his [*sic*] data and decides what data to collect next and where to find them, in order to develop his [*sic*] theory as it emerges. This process of data collection is controlled by the emerging theory. (Glaser & Strauss, 1967, p. 45)

The flexibility of grounded theory research can be contrasted with the inflexibility of traditional sampling strategies that preestablished the individuals, groups, organizations, and communities to be included based on accepted theory. The traditional sampling approach was viewed as an impediment to modification of the data collection process to account for insight gained throughout the research process. In grounded theory research, ongoing sampling adjustments

are possible and expected. In contrast, most conventional research methodologies establish all sampling procedures in advance of data analysis. Rather than delimiting populations under study or attempting to control variables, sites and participants may be considered based on their potential capacities to offer intriguing and important variation in comparisons associated with the phenomenon under investigation. Following initiation of the research process, the data collection and analysis begin to strongly influence the modes, locations, and persons engaged by the researcher.

In the example, the researcher would focus on the contributions and potential of research sites for providing insight into the question of the impact of organization-wide layoffs on work teams. Considering the theoretical value of sites, the researcher may choose organizations approaching layoffs in different ways or that have different structures, such as union- and nonunion-represented organizations. What matters most to the researcher in selecting sites is whether new data sources will offer the potential for interesting comparisons in terms of the subject under study. The researcher may choose two very different companies that are downsizing in response to economic conditions. For instance, a union-represented manufacturing organization that has announced employee reduction and a nonunion technology firm that is cutting 3,000 jobs over the next 24 months may be selected. The researcher may also choose to compare different job categories or ensure a diversity of study participants. In this case, agreements would be made with both organizations to review relevant documents, to observe meetings and workplace interactions, and to interview organization members.

Initiation and Data Collection

Glaser and Strauss (1967) have emphasized the importance of collecting data from a variety of sources as both a way to expose variation and a way to establish conceptual frameworks. Although interviews appear to be most frequently reported, grounded theory research data have been (and some argue must be) collected through a combination of methods, including observation and documentary resources.

Data collection is not time discrete but is woven in with data analysis until the researcher has determined a point of saturation. The ongoing data collection process involves exchange between data collected in the naturalistic environment and the codes, categories, and rationale developed during the research process. The researcher engages, responds, and adjusts during the process. The direction of data collection gains focus over time. Researchers collect data initially through broad-based but unstructured approaches. Through the data collection phase, concepts become more specific and methods of inquiry more structured. Interviews and other methods may be lengthy at the beginning of a study but become, brief, more specific,

and directed toward particular subject matter toward the end of the study. As with other naturalistic research approaches, data are to be examined and analyzed throughout the research process.

Returning to the previous example of a researcher exploring the impact of organization-wide layoffs on work teams, following the initial collection of data, the researcher may find the need to return to interviewees for clarification, to compare related documents or records of events associated with the initial exploration, or even to contact additional sites or individuals for further elaboration. The upcoming discussion regarding data analysis will more specifically outline ways in which the researcher may decide the next steps in the discovery process.

Data Analysis

Data analysis in grounded theory research involves a constant comparative method for generating and analyzing data. This method involves activities characterized as generating and integrating categories and their properties, as well as delimiting and writing the emerging theory (Dey, 1999). As previously indicated, data collection and analysis are woven by the researcher across the aforementioned four stages.

The dynamics of the phenomenon under investigation make each data analysis substep unique. Although maintaining an informed course of action, the weaving done in the analysis and collection of data has variability depending on the researcher and the subject matter under investigation. The researcher establishes the timing of various analytical activities as the data are sorted and re-sorted from the initial data collection. Collection and interpretation of data inform the steps taken by the researcher in the process. For the purposes of illustration, Figure 1 features nine substeps in Step 4 (data analysis) that are constantly informed by ongoing data collection—(4a) coding the first set of data, (4b) ongoing application of codes and potential changes in sites or respondents, (4c) comparing and revising codes, (4d) checking for emerging categories, (4e) forming category sets, (4f) applying and modifying categories and their properties, (4g) assessing the level of needed elaboration of categories and their properties, (4h) detailing conceptual grounding or clarification of developed concepts, and (4i) describing and clarifying the analytical rationale for the research process. The analysis activities are undertaken in response to ongoing data collection and comparison and are repeated until the researcher has determined that concluding the analysis section of the research is appropriate. It is important to note that although the data collection process involves creativity and responsiveness, it also relies on dedication by the researcher to achieve thoroughness of understanding and a comparative system for interpreting and expounding on

the data gathered. The process for conducting grounded theory research presented in Figure 1 is discussed below.

Data analysis (4a-4c): Initial coding, coding application, and coding comparison and revision. The substeps (4a-4c) require the dividing of data—most often in the form of observation notes, acquired documents, and interview transcripts. Coding has been identified as the initial analysis activity for establishing categories. Coding involves three subcomponents—naming, comparing, and memoing. Locke (2001) defined these three activities:

> *Naming* involves attempts by researchers to conceptualize and develop abstract meaning for the incidents or observations recorded in their data documentation by articulating what they perceive is occurring or being expressed in those incidents. After careful consideration, the incident is named and described from as many angles or perspectives as can be generated by the researcher, with support from associated documentation.
>
> *Comparing* entails the development of a common name or category for multiple incidents or observations in the data that lead to the development of more general categories. Comparing is critical for creating conceptual categories and supports the sharpening of the naming of categories; this is why it occurs in a manner corresponding to the naming activity described above.
>
> *Memoing* is the act of taking notes for elaboration. It takes on two forms: 1) notes that capture insights and ideas sparked by a particular incident while in the field—providing related insight or illustration, 2) recording of ideas generated later in the research process as the properties of categories are generated and theoretical ideas emerge. (p. 47)

To summarize, following the initial in-depth review of data by the researcher, the coding process ensues. Coding involves the process of naming, comparing, and memoing.

Data analysis (4d-4i): Checking categories; forming, applying, modifying, and elaborating category sets; clarifying concepts; and describing the research process. As coding proceeds, the researcher checks for the emergence of categories (Activity 4d). As categories emerge, they are modified and organized into sets (Activity 4e). Naming of categories and their properties follows the precise dividing of the data (Activity 4f). "Incidents" may be coded under numerous categories. Categories may begin to be established by contrasting one incident with others. As ongoing data collection ensues, new incidents could be compared to developing categories. The level of elaboration needed is determined and refined (Activity 4g) based on the clarity of the categories. As data collection and analysis become more focused, clarification of the concepts under development (Activity 4h) becomes a majority of the focus for the researcher. Additional time is spent describing and clarifying the analytical rationale for the research process (Activity 4i). Many repetitions of analysis activities are likely.

Data analysis: Key terms. In grounded theory, a category is considered independent from a conceptual component of a theory. A property is an element or aspect of a category. In examples provided by Glaser and Strauss (1967), "perceptions of social loss" was cited as a category that conveyed nurses' views of the degree of loss a death may involve for family and an occupation. In addition,

"loss rationales" (the reasons that nurses use to justify their perceptions) was presented as a property of this category. Under the general heading of the "theoretical properties" of a category, Glaser and Strauss (p. 106) referred to types, continua, dimensions, conditions, consequences, and even its relation to other categories.

Categories and their related properties may vary in degree of concreteness or abstraction. Categories are more than names assigned to different events or clumps of data and involve conceptualization of some essential elements or features. Categories are not regarded as representations of the data but instead as being "indicated" by the data (Dey, 1999; Glaser & Strauss, 1967). Categories must also be "sensitizing"—providing a "meaningful picture" that "helps the reader to see and hear vividly" from the perspective of study participants (Glaser & Strauss, 1967, pp. 37-38). Various categories and their properties have a tendency to merge through constant comparisons. This merging tendency compels the analyst to make associated theoretical judgments during these comparisons.

The process of data analysis reflects an amalgamation in the data itself, which occurs due to the theoretical sampling (Strauss & Corbin, 1998). The result is the revelation of meaningful differences and similarities among and between categories. The possibility for hypotheses about the relationships between categories is always present. However, it has been emphasized that the forcing of such relationships without clear support from the data is inappropriate.

Concluding the Research

Grounded theory research is concluded when the researcher has observed a point of data saturation and a sufficient theory has emerged from the data. Data saturation is evident when data collection no longer contributes to elaboration of the phenomenon being investigated. Although there are possibilities for ongoing investigation following the efforts of any single research endeavor, research may be regarded as complete when the documentation is complete. It is left to the discretion of the researcher to determine the adequacy of the theory-building process. The researcher will likely rely on established criteria for the evaluation of grounded theory (featured in the following section of this chapter) in determining the quality of the theory developed as a product of the research.

Once data saturation is evident, documentation becomes the single focus of the researcher; construction and consolidation of categories evolving around a main story line for the study are elaborated on. A structural framework is developed through the clarification of associations between the central (or load-bearing) categories and the supporting categories and properties. Grounded theory building establishes a foundation that bounds the

theory, a description that elaborates on the structure and design of the theory, and an inventory that establishes the data-based building materials that compose the theory.

The description of the relationships between the central categories and other categories generated leads to the elaboration of the grounded theory. As the description is likely to contain relationships within the theoretical framework, researchers will be able to develop propositions. The documentation of the data should be a reflection of the process of constant comparison that has been a central activity from the beginning of data collection and analysis in grounded theory research.

> Constant comparison, then, is the process that supports researcher discovery of important categories, our identifying of properties of those categories and relations between categories, the extension of discovered categories to higher levels of conceptualization or abstraction, and the arrangement of those categories in relation to each other. (Locke, 2001, p. 54)

This explanation of comparisons, along with the elaboration of comparison groups (called theoretical sampling) in the application phase and conceptual development and operationalization, leads to the full or partial fulfillment of the theory requirements.

Using Grounded Theory Research for Theory Building

There appears to be a fundamental disconnect in thinking about grounded theory research and the structured view of theory-building research in many applied disciplines. Grounded theory satisfies only a portion of the theory-building requirements in the manner outlined by Lynham (2002) in chapter 1 of this issue. This disconnect can be understood by using the five phases of the general method of theory-building research in applied disciplines (Lynham, 2002) as an illustrative framework. These five phases include conceptual development, operationalization, confirmation or disconfirmation, application, and continuous refinement and development.

Figure 2 visualizes the potential roles that grounded theory research can play in context of the general method of theory-building research in applied disciplines. Clearly, the application phase is the essential starting point and the focus of the core steps in the grounded theory research process.

As illustrated, the outputs of these steps feed directly into the conceptual development and operationalization phases of the general method model. By its own predispositions and limitations, claims that the grounded theory process engages in confirmation and disconfirmation and in continuous refinement and development are limited. These limitations are due largely to the dependence of grounded theory on saturation from a narrowly defined group of study participants and setting. The development of generalizable theory based on relatively limited exposure to the phenomenon under study

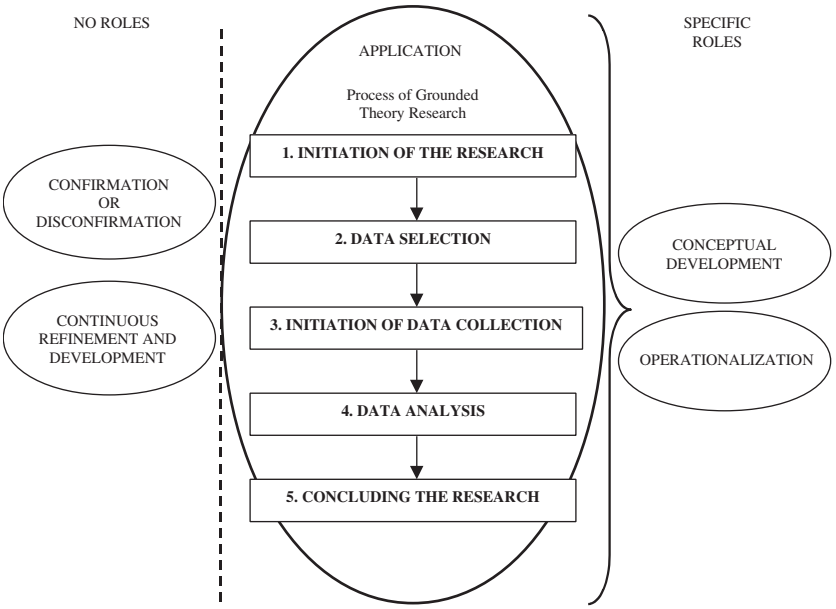

FIGURE 2: The Role of Grounded Theory Research in Context of the General Method of Theory-Building Research in Applied Disciplines

has been criticized (Hultgren & Coomer, 1989). For many, confirmation of a theory must extend beyond theoretical saturation within the narrow context found in most grounded theory research. To engage comprehensively in the theory-building process outlined by Lynham (2002), theories that are conceptualized and operationalized through grounded theory research may need to rely on other research approaches in the final two stages of the model presented.

Evaluating Grounded Theory

There are several aspects to consider when reading and evaluating the conceptualization and operationalization of a grounded theory. Strauss and Corbin (1998) identified four key areas for consideration when evaluating grounded theory research efforts. These areas involve (a) judgments about the validity, reliability, and credibility of the data; (b) judgments about the theory itself; (c) decisions regarding the adequacy of the research process through which the theory is being generated, elaborated, or tested; and (d) conclusions about the empirical grounding of the research. Of particular importance to the discussion of grounded theory is an examination of the adequacy of a study's research process and the grounding of the findings.

In clarifying their approach to grounded theory, Strauss and Corbin (1998) suggested the following seven criteria be used for evaluating the research process:

- rationale for the selection of the original sample;
- elaboration of the major categories that emerge;
- the events, incidents, or actions pointing to the major categories identified;
- an explanation of how theoretical formulations influenced or guided the data collection;
- the elaboration regarding the hypotheses and justifications for the establishment of relationships between categories and the approach to validation;
- the accounting for discrepancies in the data and resulting theoretical modifications; and
- the rationale for the selection of the core or central category.

Although some of the criteria for evaluating grounded theory may be unconventional, it is emphasized that they are "essential to evaluating the analytic logic used by the researcher" (Strauss & Corbin, 1998, p. 269). The elaboration of theory developed in the grounded theory process is necessary but not sufficient for the adequate forwarding of a theory. The detailed discussion regarding the process of discovery and the steps resulting in the emergence of the theory are as important as the theoretical elaboration. The accounting of the theory-building process includes a thorough detailing of indicators and of the approach to theoretical sampling.

Strauss and Corbin (1998) also suggested that the "empirical grounding of a study" be evaluated to assess the development of relevant categories and concepts that are the building blocks of the theory. The consideration of seven criteria for the assessment of the grounding of a study include an examination of the following:

- the quality of the concepts generated,
- the systematic relationships between the concepts,
- the clarity and density of conceptual linkages,
- the inclusion of variation into the theory,
- a clear description of the conditions under which variation can be found,
- an account of the research process, and
- the significance of theoretical findings.

A considerable challenge in the examination of the quality of grounded theory–building research is associated with the question of prediction and verification. If the measure for the practical application of theory does not lie in prediction (as

the assumptions behind grounded theory suggest), then the question of how theories may be verified remains unanswered. It has also been argued that a theory built from the grounded theory research approach will prove its value in practical applications (Glaser & Strauss, 1967). From this perspective, theory is viewed as adequate if it is a reasonably good guide to understanding and directing action. Of course, a challenge to this instrumentalist perspective is that the emphasis on utility may de-emphasize the importance of the theory's truth or accuracy. Actions supporting unequal social treatment of women have, in some cases, been supported by theories of a significant gap in intelligence between men and women. These, and other theories, are used as a justification for sexist behavior (Benokraitis & Feagin, 1995; *Global Women's Rights*, 2001). Although such theories have been found to be false, they previously had utility in the justification of sexism. Therefore, the interpretation of a theory's utility must be handled with particular, critical care.

The question of to whom a theory is useful will likely vary depending on the interests of those affected by its application. "We do not (and cannot) expect any agreement on utility—we expect it to vary according to person and circumstance" (Dey, 1999, p. 56). Conversely, it has been argued that the truth and accuracy of a theory can be verified independent of person or circumstance. Dey (1999) emphasized that when assessing grounded theory, it is also important to consider consistencies with other theories and to elaborate specifically on potential errors, ambiguities, and explanations in the analysis. Providing a critical assessment and critique within both the reporting of the theory-building research process as well as in the description of the theory itself is viewed as important toward the development of constructive critique and extensions of the theory-building process.

Grounded Theory Research in HRD

Grounded theory research is important to HRD because of its potential for contribution to an overall agenda being established. The most salient link in the grounded theory research approach is its connection between theory and practice. The anchor of the grounded theory-building approach is practice or action. Locke (2001) and Partington (2000) have identified the persistent call for and the shift toward theory building that is focused on the active role of managers and organizations as support for the use of grounded theory research in the study of workplace-related development.

HRD can leverage the strengths of grounded theory research to inform practice and the ongoing theory-building research process. According to Charmaz (2000), the strengths of grounded theory lie in (a) strategies that guide the researcher step by step through an analytic process, (b) the self-correcting nature of the data collection process, (c) the methods' inherent bent toward theory and the simultaneous turning away from acontextual

description, and (d) the emphasis on comparative methods. The quest of grounded theory research is to study social processes and the ongoing changes that occur in the phenomenon under investigation. In addition, although debate continues, grounded theory research currently provides opportunities for use by both positivists and naturalists to participate in the theory-building process. The transdisciplinary nature of grounded theory along with its aim to capture tacit knowledge are also important in considering the use of this research approach in HRD.

Grounded Theory Examples

As previously noted, the initiation of grounded theory research begins with the establishment of a phenomenon to examine and a site or setting in which to examine it. One of the most exciting parts about the development of grounded theory in HRD is the potential for a large number of topic and settings worthy of potential investigation. The following examples are trailed by a brief discussion regarding implementation of grounded theory research. The possibilities for grounded theory research in HRD are rich and have the potential utility for HRD practitioners or researchers interested in investigating their areas of interest.

Although few grounded theory research studies have been printed in the publications affiliated with HRD, several studies have focused on research questions relevant to the field. Pertinent grounded theory research has included an examination of individual responses to organizational change (Johansen, 1991, 2001), the exploration of leadership values for quality in a manufacturing context (Franche're, 1995), intrafirm conflicts in the formation of business strategies in corporate settings (Shaffer & Hillman, 2000), patient perceptions of the quality of care (Radwin, 2000), and the impact of conflict and cohesion on organizational learning and performance (Cairns, Burt, & Beech, 2001).

Organization change is an important and growing consideration in many U.S. sectors. Understanding how individuals react to and manage change in organizational contexts is of logical importance to HRD (Rothwell, Sullivan, & McLean, 1995; Swanson & Holton, 2001). Johansen (2001) used grounded theory research in the exploration of how individuals identified, evaluated, and responded to organizational change. The emergent categories from the data collection revealed the existence of three time periods, including (a) the anticipatory interval, (b) the event interval, and (c) the postevent interval. Johansen theorized that during the anticipatory interval, employees scan the environment to gain information regarding future events. These events are discussed with others and evaluated based on the events' likely impact on the individual actors. Johansen identified the event interval as the impetus for the development of various coping actions (24

possible coping actions were identified). During the postevent interval, participants assess the identified changes and their anticipated impact on future events, perceived actor control, costs and benefits resulting from the change, and perceived fairness of the change event.

HRD practitioners could use the specific results of Johansen's study for several purposes in organization development, training, process consultation, or individual coaching. More specifically, HRD practitioners and scholars could use the grounded theory regarding individual response to organizational change in the preparation and development of managers engaged in the implementation of change processes, through the development of a training program, or in "just-in-time" meeting presentations or facilitation. Further development by practitioners and researchers could extend the scope and meaning of the grounded theory presented by Johansen.

Another important and growing area associated with HRD and organizational success is team development and conflict management (Rothwell et al., 1995; Swanson & Holton, 2001). Cairns et al. (2001) embarked on a yearlong study of the impact of conflict and coherence on the functioning of management teams. The researchers examined the events of a single organization with particular focus on managerial function and responsiveness to drivers external to the organization. Several categories were developed in the process of the study, as were three key "paradoxes." In part, Cairns et al. concluded that coherence develops only with the implication that coherence already exists. The researchers concluded that the development of unitary thought and action on issues ranging from conflict management to strategic planning must include four key elements: consistency, consonance, advantage, and feasibility. The strength of these four categories was identified as aiding or impeding organizational learning. The results of the study provide a framework available for broader exploration of the importance of cohesion across a variety of organizational types over time. In addition to the other findings in the research by Cairns et al., HRD practitioners and scholars may find utility in expanding the use of this grounded theory research to the testing and development of processes and tools that capitalize on the theoretical insight advanced by Cairns et al.

Challenges and Limitations

The grounded theory research approach is not without controversy. An example is Benoliel's (1996) survey of research using the grounded theory research approach. Following a review of grounded theory research articles published over a 4-year period of research, Benoliel suggested that only a handful of those articles that claimed to have used the approach actually had the "necessary features" of grounded theory research. The rationale for

eliminating a significant percentage of the articles published as not constituting grounded theory research was that the studies used only interview data and did not account for social structural influences of respondents (Benoliel, 1996). This criticism reflects Benoliel's view that the goal of grounded theory research is "to explain how social circumstances could account for the behaviors and interactions of the people being studied" (p. 413). There was also criticism that the impact of social structures and influences—family, work, and community—was not considered. A related criticism suggests that grounded theory research is often confused with other qualitative methods, such as phenomenology (Baker, Norton, Young, & Ward, 1998).

An additional criticism of grounded theory research identified by Lincoln and Guba (1985) is that grounded theory research is underdetermined and is not viable because the raw data used are actually facts taken from within the framework of some other theory or theory-in-use (Argyris & Schön, 1996) not understood by the researcher and recast inappropriately.

Remaining questions about the grounded theory research approach are causes for ongoing exploration and active debate (Dey, 1999), including the following.

- Must grounded theory research address a particular set of research questions?
- How does grounded theory research manage the relationship between action and context?
- How does grounded theory research analyze change over time?
- Is grounded theory research more than one variant of a qualitative methodology?
- Can grounded theory research presume a particular conceptual framework (such as the coding paradigm)?
- Must grounded theory transcend "in vivo" codes?
- Does grounded theory require a specific set of methodological procedures?
- Can researchers using grounded theory claim to be objective?
- Is grounded theory grounded in an external reality?
- Can grounded theory be verified as it is discovered?

Conclusion

In contrast to traditional approaches to building theory, reciprocity between HRD theorists and those participating in HRD-related phenomena is vital to the successful development of grounded theory research. The grounded theory research process invites initiation and participation. The implications for the grounded theory research approach provide possibili-

ties for contribution to the larger theory-building agenda in HRD. Of most importance is the potential for data collection amid HRD-related activities for the purposes of theory building.

Grounded theory research provides opportunities for practitioners and educators to both actively engage in the theory-building process through their own development of grounded theory research and to collaborate with theory-building experts. Insights from grounded theory studies have the potential to influence organizational practices in both narrow and broad contexts. In addition, participation in grounded theory research by those involved in HRD as researchers, practitioners, or educators will provide opportunities for the further refinement and clarification of the grounded theory research method itself.

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