Researching Dynamic Phenomena in Complex Organizations: Collaborative Practice Research with Theory Triangulation

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Abstract

In this paper, we present a practice research strategy for collaboration with practitioners to execute valid and reliable research in the field while providing valuable, theory-based insight to practitioners who sponsor the research. This approach addresses the dual needs of researchers, who must gather data in real time and meet requirements of academic rigor, while maximizing the value and relevance of the work for practitioner collaborators. We demonstrate the approach with a case study of a Fortune 30 company undertaking an extensive organizational change initiative. During our 18-month research engagement with the company, we used a theory triangulation approach to guide our inquiry and analysis, iterating on emergent findings to articulate actionable recommendations for the practitioners working on the phenomena of interest. By describing our research design, we offer one method for framing ‘real world’ research in a way that maximizes the benefit to researchers and practitioners.

1. Introduction

When organizations undertake significant strategic initiatives, the process and results provide substantial research opportunities. However, it is challenging from a research perspective to examine the development and impacts of such strategic initiatives, particularly within complex organizations operating in a rapidly changing and evolving internal and external environment. These initiatives represent a moving research target, as people, processes, and relationships within the organization change, adapt and evolve in response to the initial actions. In this article, we discuss the design and planning of a collaborative practice research strategy, using theory as a framing mechanism, for researching phenomena in vague and constantly evolving problem spaces.

We illustrate the strategy with a case study of a multinational Fortune 30 retailer (RetailCo) as it sets in place a five-year plan to implement an enterprise-wide information technology (IT) infrastructure utilizing customized package solutions, after 25 years of executing in-house developments of applications siloed within business units. The new plan resulted in disruptions of the organizational structure and IT support and service models. Notably, the existing project management office (PMO) was forced to manage two streams of projects from the pipeline: one stream of business requests, and a new influx of modernization projects. In light of this challenge, the organization’s Strategy and Planning group established a new Portfolio Management Group (PMG), separate from the PMO, charged with managing the project pipeline and planning for scarce resources while executing the modernization strategy. This is the environment in which we designed a methodology to examine and track the placement and evolution of the portfolio, program, and project management processes.

Our engagement with the research site began at the invitation of two senior research-oriented IT executives who were leading the transformation effort. The process of designing and planning the research strategy evolved over the 18-month period of our engagement within RetailCo’s IT division. The challenge we faced was to design a rigorous research endeavor that provided practical outcomes for our practitioner sponsors, while at the same time enabling us as researchers to make a significant contribution to the academic literature in this area. In this paper, we present the collaborative practice research strategy, incorporating theoretical triangulation, which enabled us to meet these twin demands effectively, and use the RetailCo case to illustrate the application of the methodology that we developed to guide our work.

Our contribution explains the benefits for both researchers and practitioners of using theory triangulation in a collaborative practice research framework. From the practitioner perspective, the theory triangulation approach enabled us to structure findings and to organize themes so that we could transform research theory into relevant and useful knowledge and provide a holistic answer to a practice-based problem. From the research perspective, the theoretical insights developed through this approach make a substantial contribution.
in explicating when and how the implications of the theories examined apply in practice. Additionally, we have been able to develop methodological guidelines for other researchers seeking to do practically relevant and academically rigorous research work in complex and dynamic contexts.

This paper is constructed in three parts. First, we discuss the overarching framework of collaborative practice research that guided the study. We highlight the gap within this framework, namely the lack of specific guidance on how to convert relevant theoretical information into knowledge that is useful and applicable in practice. Next, we describe our approach to addressing this gap, theory triangulation, and discuss its implementation, limitations, and implications for validity. Finally, we illustrate the use of this methodology in the case study of RetailCo’s IT modernization effort, including a description of the execution of the methodology and discussion of validity and reliability concerns in the field.

2. Collaborative Practice Research

Research efforts in the ‘real world’ must find ways to examine the phenomena of interest while simultaneously addressing the challenges, inherent in the contemporary organizational context, of investigating phenomena occurring in the midst of constant organizational change. Such work requires active sponsorship by key personnel in the study site who can sanction and facilitate the researchers’ access [28]. This sponsorship requirement entails the engagement of practitioners who seek research collaborations that will provide a practical and solution-oriented perspective on complex and dynamic multidimensional problems [26].

The integral involvement of practitioners is a hallmark of collaborative practice research, with research topic and research design being jointly constituted by researchers and sponsors [28]. Typically, the end-point of the study is a moving and evolving target framed by the dynamic nature of the phenomena of interest. These studies are guided by both practice and research questions, with the practice questions tending to emphasize resolution of problems or integration of ‘best practices,’ while the research questions revolve around interpretation of practice through various theoretical lenses and the development of explanations of events and processes in the context under study to build new knowledge and theory [10].

The initial ill-defined and uncertain nature of the study often requires a period of orientation and immersion of the researchers in the practice context simply to reach the stage where practice and research questions can begin to be conceptualized and articulated [17, 28]. Not surprisingly, then, the nature of this engagement requires frequent interactions between the researchers and practitioner sponsors to keep all members of the study team grounded in both practice and research perspectives. These frequent interactions enable the team members to learn from one another and “push thinking forward in ways which otherwise would not occur” ([28], p. 26) and find new ways of thinking about the phenomena under study, often prompting an iterative construction and reconstruction of the study goals.

The field of practice theory provides a useful perspective for capturing data and applying emergent theories by focusing on an examination of how work in organizations is practically accomplished [5]. Practice-based studies employ an interpretive paradigm, seeking to gain a “a deeper understanding of how organizations are constructed, how they are changed, how innovations emerge, how decisions are made and how knowledge is generated” ([4], p. 135). Barnes [1] uses language that delineates “communities” in an organization, separate from the formal organizational units. In this view, community identities form around a common understanding of the shared practices that distinguish one community group from another. Examining these shared practices and how they evolve as a group’s circumstances and context change can provide significant insights into how new external initiatives are absorbed and adapted to by the group.

Feldman and Orlikowski [3] provide three perspectives on the field of practice theory: the empirical, the theoretical, and the philosophical. The empirical perspective “recognizes the centrality of people’s actions to organizational outcomes” (p. 1240) and seeks to answer ‘what’ questions by focusing on the everyday activities of organizing. The theoretical perspective is “critically concerned with a specific explanation for [everyday] activity” (p. 1241) and focuses on the ‘how’ question by articulating practice-based relationships that explain the dynamics of everyday activity. Finally, the philosophical perspective “sees the social world as brought into being through everyday activity” and aims to answer ‘why’ questions by focusing on practices as the “primary building blocks of social reality” (p. 1241). The overall focus of examining organizational phenomena through the lens of practice theory is to shed light on the continual emergent trends and redirections of practicing communities as they accomplish their work and maintain their community in complex and shifting...
contexts. In particular, practice theory makes contributions to both practice and theory:

First, practice theory provides the basis for powerful theoretical generalizations, and second, practice theory has the capacity to offer important practical implications for practitioners. (p. 1249)

As Feldman and Orlikowski note, executing research in organizational practice is challenging because of the complexities of studying phenomena in dynamic and ambiguous situations, and requires deep engagement in the field. One useful approach to instantiating this practice theory perspective into a research tool that bridges the gap between research ideas and practical realities is provided by Reynolds and Yetton [17]. The Reynolds and Yetton framework describes four stages of collaborative practice research: engagement; identifying the gap in practice; finding the theoretical perspective; and reporting research findings. Table 1 shows the alignment of the Reynolds and Yetton framework with the Feldman and Orlikowski perspectives. While there is an over-arching sequential direction to the Reynolds and Yetton stages, the research team will most typically iterate within and between stages as their understanding of evolving phenomena and relevant theoretical perspectives develops and matures.

The engagement stage in Reynolds and Yetton’s framework begins with the initial contacts and negotiations between academic and practitioner members of the team and is often initiated by practitioner sponsors, who bring a practice-related question to the engagement. During this stage, the focus is on understanding what is happening in the situation: academic team members typically require an immersion in the study site to enable them to gain a deep familiarity with the context of people, processes and events. As the researchers become immersed in the practice context and gain familiarity with the interactions and relationships of the situation, the ‘gap in practice’ begins to emerge. Reynolds and Yetton [17] note that the identification of a specific gap is a dynamic process “requiring ongoing engagement to build a pattern of observation” (p. 5). Here researchers are asking how things are happening or not happening, and looking for patterns of observations. As the patterns emerge, potential ideas are tested with the practitioner sponsors to converge on and articulate the practice-related problem and to shape the research question.

With the gap in practice clearly articulated, the next challenge is to identify the theoretical perspectives that are most useful in shedding insight on the practice and research questions. Frequently, the integration of multiple theories may be required to provide useful recommendations for addressing the gap in practice [25]. However, little guidance is provided on how to effectively incorporate theoretical perspectives at this stage. It is at this point that we make our contribution. How do you use theory to shed light on the gap in practice? We turn now to a discussion of theory triangulation and how it can provide perspective-building opportunities in a collaborative practice research situation.

3. Theory triangulation as a viewpoint-building methodology

Theory triangulation is a method of analyzing qualitative data by utilizing two or more distinct theoretical frameworks to benefit from the viewpoint intersection ([15], p. 562). This method is particularly advantageous for addressing the challenges of examining complex issues in continual flux because

<table>
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<th>Table 1: From practice theory to collaborative practice research</th>
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<tr>
<td><strong>Feldman &amp; Orlikowski 2011</strong></td>
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<tr>
<td><strong>Empirical perspective</strong></td>
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<td><strong>Theoretical perspective</strong></td>
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<td><strong>Philosophical perspective</strong></td>
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| ‘What’ questions: “recognizes centrality of people’s actions to organizational outcomes” |
| ‘How’ questions: “critically concerned with a specific explanation for [everyday] activity” |
| ‘Why’ questions: “sees the social world as brought into being through everyday activity” |
it supports a constant and iterative comparison between theoretical perspectives and on-the-ground events. Discussions among researchers and practitioners on the research team contribute fresh ideas to the next round of practice initiatives. At the same time, frequent contact between practitioners and researchers provides an immediate check and feedback on the relevance and applicability of the research theories in the practical context.

From the practitioner view, using theory triangulation in analyzing qualitative data enables researchers to focus on the main areas of relevance to the practitioner collaborators. For example, different theoretical perspectives can be used to highlight areas of greatest overlap between the ‘what’ and the ‘how’ of the activities under examination. These different perspectives can also reveal gaps in the work of the communities subject to the research effort, by identifying work that might be expected to be part of the community purview, but is not being discussed or carried out, or is being carried out in unexpected ways or by unexpected groups. The patterns in the data revealed through various theoretical lenses enable researchers to provide highly relevant feedback to managers, as well as identify areas in which further inquiry might help to clarify the analysis.

The theory triangulation method allows the research team to ask the ‘what’, ‘how’, and ‘why’ questions both simultaneously and iteratively by selecting and employing appropriate theories for analyzing qualitative data to answer these inquiries. As each theory reveals insights to the events that are unfolding, these insights contribute to decisions about the next round of data collection and analysis, and also raise awareness among the research team of how assumptions about events, and the reactions of various actors to those events, can affect subsequent actions and events. These theoretical examinations can reveal differences that reflect different “theories of action” [18] among participants in the changing events on the ground. Examining the data from perspectives of different theories enables researchers to understand how different underlying theoretical assumptions can affect findings and interpretations [15], supports theoretical abstractions from the data [8], and reveals the limitations and boundaries of application of the theories being examined.

3.1. Choosing theories to triangulate

Clearly the choice of appropriate theories is highly dependent on the nature of the phenomenon under study. However, the focus on ‘what’, ‘how’ and ‘why’ provide important clues. Most typically, the ‘what’ questions will be illuminated by theories from the immediate discipline, and here normative theories and best practice prescriptions provide a good starting point. Examining key areas of congruence and variance between a community’s observed practices and practices prescribed by normative theories in the immediate discipline can highlight critical gaps warranting further investigation. The gaps may reveal parts of the prescribed practice that are simply not being done, or are being done by a different group, as illustrated in Table 2.

Alternatively, the gaps may indicate aspects of the prescription that are irrelevant or impractical to implement, suggesting limitations of the normative theory in certain contexts, or the need for modifications to the theory. For example, Taylor [21], examining risk management practices among vendor project managers, found prescriptions and practice were well-aligned at the pre-sales stage but noted that implementation project managers often failed to follow up on the risk management plans prepared by their pre-sales colleagues. Taylor noted that further work was needed to examine whether the

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**Table 2: Template for Organizing Qualitative Data in a Theory Triangulation Grid**

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<thead>
<tr>
<th>Phenomenon 1</th>
<th>Theory concept 1</th>
<th>Theory concept 2</th>
<th>Theory concept 3</th>
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<tr>
<td>**</td>
<td>Where there is rich data, the collaborative research team can examine the validity of the characterized phenomena</td>
<td>Where there is absent data, the collaborative research team can explore further theories to explain why the phenomena are not observed</td>
<td>Where data patterns are unclear, the collaborative research team can adjust future observation to clarify</td>
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failure was a result of lack of knowledge on the project managers’ part or because the prescribed practice was not practically implementable in the work place.

When a new task or initiative is introduced, focusing on the theoretical or predicted expectations about ‘what’ should be done can quickly highlight how the various communities impacted by the initiative are responding. Are they eagerly taking up the challenge of the new task, or ignoring it, or actively obstructing it? As a result, ‘what’ is actually done in response to the new task?

The second focus, on ‘how’ (or ‘where’ or ‘by whom’), typically calls for a practice theory perspective, such as communities of practice theory [24], social process modelling [13], actor-network theory [9], or structuration theory [6]. These theories allow a focus on the inter-relation between the ‘what’ of the practice under study and the shared practical understandings of the community that is undertaking the practice. Demarcations and distinctions between communities may be revealed here, with the gaps identified in the ‘how’ perspective being explained at this stage as aspects of the practice that are seen as ‘not our job’ or being ‘owned’ by a different group or community. Strategic initiatives often require re-structuring of various organizational groups to achieve new tasks, and here practice-based theories can reveal issues of community identity and resistance to the new order.

Aspects that can be particularly useful to consider are the identification of groups attempting to retain ownership of practices that are being re-allocated to other groups; the identification of tasks that no group is willing to ‘own’; and the identification of actions by one group trying to affect the behavior of another group. For example, Newman and Noble [12] used social process models of user involvement to examine interactions over time between analysts and users during the development of a new information system. Their models revealed how actions by analysts trying to persuade, and then coerce, users into acceptance of the new system finally backfired, with the analysts being required to redesign the system to the users’ specifications.

Finally, the ‘why’ questions seek to explain the observations and understandings developed in answering the ‘what’ and ‘how’ questions. Relevant theories here are dependent on the overarching research questions, the phenomenon under investigation and its context, and what has been revealed through consideration of ‘what’ and ‘how’ questions. For example, in a study of the introduction of a risk assessment process in a large local government organization, Taylor, Artman and Woelfer [22] used theories of knowledge transformation, visualization and boundary spanning to explain why the second attempt at introduction of a process was more successful than the first effort. In a study examining information systems implementation barriers, Ngwenyama and Nielsen [14] used organizational influence theory to shed light on an organization’s implementation of a change project, which was successful even in the face of “reluctant and weak top-management support.” Thorogood and Yetton [23] explained improvements in IT governance, alignment and project management through the lens of Real Options theory. Note that at the ‘why’ stage, two or more different theories help to shed light on different aspects of the phenomena and achieve greater understanding of the assumptions behind various interpretations of the events [15].

4. Establishing reliability and validity of collaborative practice research and theory triangulation

As noted earlier, the nature of collaborative practice research typically requires intensive data collection strategies and in-depth theory triangulation, often informed by naturalistic inquiry approaches, especially in Reynold and Yetton’s early engagement/immersion stage. For this reason, Chatman’s [2] reliability and validity framework is used to evaluate the data collection and analysis methods applied.

Chatman [2] defined reliability of qualitative data collection and analysis to be “the degree to which observations are recorded as consistent with some phenomenon during the lifespan of the inquiry” (p. 8). To support observational consistency, Chatman recommends consistent note taking, researcher immersion, and researcher exposure to multiple situations, all of which are well aligned with the immersion stage of identifying the gap in practice.

While reliability measures should be designed to support accurate records of experiences and govern thoughtful exposure to a variety of observations and informants, validity measures should ensure that informants’ experiences are faithfully depicted in framing analysis and findings. Chatman [2] defines validity as the “truth or the degree to which the researcher is given a true picture of the phenomenon being studied” (p. 12). In describing the validity measures to put into place, Chatman outlines three types: face validity, criterion validity, and construct validity. Face validity refers to observational measures that seem to make sense or are reasonable. Criterion validity calls for employing multiple
different angles to triangulate observational “facts.” Construct validity gives meaning and structure during data analysis by using a theoretical framework. We discuss in more detail later in the paper how these validity concepts can be established in practice.

4.1. Limitations of collaborative practice research and theory triangulation

The limitations to the application of theory triangulation in collaborative practice studies include a lack of generalizability or external validity of the findings, as well as possible paradigm conflicts [19]. To the first limitation, collaborative practice research is typically conducted as an in-depth longitudinal single case study, and as such, is intended to describe a particular phenomenon in a very specific context: statistical generalizability is not a goal. As Yin [27] notes, in case studies, external validity is not analogous to statistical generalization, but rather relies on analytic generalization, where the researcher is “striving to generalize a particular set of results to some broader theory” (p. 43). Thus, in the collaborative practice research mode, the work of theory triangulation supports the effort of analytic generalization. Further, if the context and phenomenon of the case are reliably described, future investigators will be provided with enough information to identify similar cases and recognize similarities in elements of phenomena, supporting extended generalization to theories in the domain.

The issue of paradigm conflicts relates to concerns that the different theories used in theory triangulation may be based on different epistemological assumptions about data collection methods and interpretations [19]. This could be problematic if the aim of the study was to compare different explanations for a phenomenon, and if the competing theories have incompatible epistemological assumptions. However, the fundamental point of theory triangulation is not to test which theory is ‘better’ in some explanatory way. Rather, it is to “understand how differing assumptions and premises affect findings and interpretations” ([15], p. 562) and to capture and report multiple perspectives on a phenomenon.

5. Collaborative Practice Research and Theory Triangulation in Action

In this section, we provide a description of how we moved through the collaborative practice research stages, working with a multinational Fortune 30 retailer (RetailCo) as it introduced a new Portfolio Management Group (PMG) to manage the project portfolio during a five-year IT modernization initiative. We focus here on the methodological issues and challenges of the study. Full details of the case study and findings are reported elsewhere (ref withheld for anonymization).

5.1. Engagement

Our engagement with the research site began at the invitation of two senior research-oriented IT executives who were leading the transformation effort. They proposed a simple practice-perspective question:

*How can RetailCo incorporate research-based best practices into their IT enterprise transformation and modernization effort, particularly in relation to the development and delivery of project portfolio management functions?*

Discussions with the executive sponsors revealed that internal efforts to gauge employee morale and manage the overwhelming amount of change that had taken place over the past two years had resulted in widespread survey fatigue, particularly among managers and middle managers in the IT division. Additionally, the nuanced nature of the inquiry, the active interest, engagement, and research orientation of the executive sponsors, and the relatively small set of managers involved in the PMG implementation, all suggested the choice of a methodology that would support in-depth collaborative engagement and deep analysis enabled by qualitative data collection and analysis.

Collaborative practice research with theory triangulation was appropriate for this inquiry context due to the complex nature of the problem space presented to researchers upon gaining access to the site. The organization asked for greater insight into the current nature of work being done to manage the project portfolio, as well as a narrative surrounding the implementation of the PMG function. As such, there was a natural space for consultation with the executives owning the PMG function regarding gaps in portfolio analysis and management.

5.2. Immersion

To address the initial practice question, we first needed to understand the cultural landscape of the organization. With full support from our practitioner sponsors, the first author spent two months on site reviewing the worksite and conducting preliminary observations of meetings and other interactions among strategy and planning managers, as well as
PMO and PMG staff, to gain a deep understanding of the worksite and organizational culture. During these two months, researchers iterated through reviewing a set of organizational culture values with managerial informants, highlighting the most important and least important indicators of cultural ‘fit’ based on observational data. In addition to the likely resistance, already noted, to further survey methods, it became apparent that the organizational culture seemed more open to qualitative methods and that subjects would be most forthcoming and feel the greatest amount of respect if the researchers adopted a one-on-one, qualitative approach to inquiry.

This initial deep immersion in the work site enabled us to develop a detailed data gathering, validation, and communication plan, designed to provide understanding of what portfolio management processes were in place, and how those processes were carried out within the organization. At this stage, we were guided by the following two questions, designed to support the ‘gap in practice’ stage:

What portfolio management functions are currently being delivered at RetailCo?

How are individuals delivering these functions through their work flows, information sharing habits, and networked collaborators?

The detailed data gathering plan comprised a further 100 hours of on-site observations, primarily through attendance at meetings, since the preliminary observations had revealed that RetailCo’s meetings were very productive in terms of getting work done. Additionally, fourteen informational interviews were conducted with various staff to gain different perspectives on the PMG implementation. During the course of the informational interviews, researchers were careful to establish a rapport with the respondents, who were generally eager to speak about their roles and share information about processes in the company. More than 90% of the participants contacted for interviews consented to meet for periods ranging from 30 to 90 minutes, both initially and on an ongoing basis. The first author worked on-site up to three days a week to make herself known to people in the IT division building, eating meals in the cafeteria and stopping to chat with people during the day. To gain access for intense observation (shadowing) and repeated interviews, the researcher also maintained email contact with informants, scheduling observation sessions well in advance and keeping track of each manager’s preferences with regard to communication.

Most informants were very busy project and program managers, as well as enterprise or solutions architects. Observation proved to be the least intrusive method for gathering qualitative data, especially as the IT division employees did much of their work collaboratively, in meetings. This proved to be a great opportunity to gathering data in breadth. However, interviews were often required to address questions that occurred to the researcher during such meetings; in that case, informants were often willing to meet on fairly short notice for up to an hour, wherein the researcher could also ask questions focused on gaining more depth regarding the subjects raised in meetings.

5.3. Finding the gap in practice

Our goal during the data gathering stage was to examine what was being done and not done in terms of project portfolio management (PPM) through constant comparison between observations on site and the expectations derived from PPM literature. We looked for emerging patterns in our observations and planned further observations to confirm or disconfirm these tentative patterns.

Qualitative coding was used to analyze observation and interview notes. Given the focus on portfolio management implementation, the researchers utilized codes from literature in the immediate discipline of project management to identify the ‘what’ of the work carried out by the Portfolio and Project Management groups [16], and codes adapted from the Community of Practice literature [24] to understand how the groups carried out their functions by identifying the work flows, information sharing habits, and networks of various collaborating groups. The application of dual code sets supported triangulation of the two theories, leading to greater insight into the PMG implementation process and its implications, as illustrated in Table 3.

Academic researchers and executives met approximately once per month to go over analytic progress and to introduce theories proposed for making sense of the qualitative data. Executives asked many questions during these meetings, asking for definitions of theory components, as well as time to reflect on the preliminary data analyses. Often, executives followed up after such meetings with questions via email. These engagements enabled us to find new perspectives on the evolving phenomena under observation.
5.4. Finding the theory in the gap

In particular, our observations revealed that much of the work expected within the PPM domain was indeed being carried out, but not necessarily by the groups that we expected. This was surprising to us because the PMG group had been given such a strong mandate from the senior executives, and we had expected to find that key PPM functions would be quickly appropriated by the PMG group. At this point, our research aims became clear, and we sought to understand why the PMG group was encountering resistance to a clearly mandated change initiative, and how theoretical perspectives might provide insights to help the initiative move forward. The following research aims guided our work at this stage:

What research theories and frameworks can shed light on the processes and events unfolding at RetailCo in response to the PMG implementation initiative?

What improvements in practice at RetailCo can be achieved through the sharing of research-based insights derived from tracking events and processes as they unfold?

The overarching research goal at this point was to build new knowledge and normative propositions that might guide other organizations embarking on this kind of IT transformation.

To address the research aims we sought to understand why events and processes were unfolding and the challenges and difficulties that arose along the way, particularly in this context where the transformation initiative was being planned and led by research-oriented expert practitioners with many years of experience in the IT domain. While the deep immersion on site provided significant perspective on the why questions, we needed to triangulate with research findings to frame perspectives and viewpoints that could illuminate the issues and events we observed. This triangulation also enabled us to explore the original practice-perspective goal with our practitioner collaborators, by helping us to articulate barriers to the incorporation of research-based best practices into the delivery of project portfolio management (PPM) functions.

The initial analysis of observational data through coding the ‘what’ of project portfolio work using a discipline-specific framework of PPM functions and the ‘how’ from the perspective of communities of practice research had enabled us to identify what portfolio functions were being done and where; what was not being done; and how the new PMG group was incorporated into the execution of PPM functions. While this analysis revealed that the PMG group was integrated into the IT organization, it also revealed that, for the most part, the PMG group was seen as an information consumer only, rather than a key controlling or decision-making group with respect to portfolio functions.

In order to understand why the PMG group found itself in this situation, in spite of the strong executive mandate for their work, we turned to stakeholder analysis theory [11] to gain an understanding of the relative influence of competing groups within the IT division and the wider business functions. Stakeholder analysis theory posits that definitive stakeholders — those that can exercise power effectively — hold this position because of authority gained from being perceived by the organization as legitimate stakeholders, and are able to exercise their power because of the urgency with which their claims are attended to by the organization.
Examining the position of the PMG group among the key organizational stakeholders showed that they had failed to establish themselves as a definitive stakeholder: they had low legitimacy in the eyes of other key stakeholders; as information consumers, their claims were given low priority; and in spite of the strong executive mandate supporting their establishment, they had not been given control over key PPM functions.

This revelation had both practice and research implications. From the practice perspective, we were able to work with our executive sponsors to identify discrete, specific, and implementable actions that would increase the legitimacy and urgency of the PMG’s claims within the organization. Change management theories suggest that careful attention to key critical success factors will mitigate resistance to change [20]; however, from the research perspective, we were able to highlight that internal communities of practice may operate as informal, but highly influential, stakeholders that fight to retain control of key functions. As a result of the stakeholder analysis, the executive sponsors sought changes in decision-making authority within the organization to empower the PMG and enhance the effectiveness of PPM practices.

5.5. Reliability and validity in action

The research design applied for this case study carefully considered all three strategies - note-taking, immersion, and exposure to multiple situations - recommended by Chatman [2] to support observational consistency to ensure reliability of data collection. In meetings and interviews where informants permitted note taking, the field researcher made careful observational notes throughout the session. In other situations, where note taking was prohibited or inappropriate, the researcher excused herself to take notes elsewhere periodically, and wrote a reflection statement at the end of each period of lengthy observation (four or more hours). Researcher immersion was enabled through the organization’s cooperation; the researcher received a badge and identification, as well as access to all areas of the home and satellite campuses. This aided the researcher in ‘blending in’ at the organization, and permitted her to walk freely about the RetailCo buildings without having to ask for permission for access frequently. The researcher also requested and received access to multiple situations in the research proposal, arranging to attend a wide variety of meetings and to shadow key informants to gather a wider range of contextual information about their work processes.

Validity assurances built into the research design emphasized verifying both raw qualitative data and analytic findings with informants, utilizing an iterative cycle of data gathering, analysis, and presentations to organizational sponsors and stakeholders. First, the initial period of observation allowed the field researcher to slowly build a picture of normative actions through attending meetings, and then following action items derived from meeting conversations, and checking in with informants to ask clarifying questions. One example of such a “normative action” that was used to inform ongoing research was that of collaborative work: the researcher found that, contrary to her own experience in a different industry, much of the work done among RetailCo IT employees is carried out in regularly-scheduled meetings, where decisions are made by consensus. Observing this pattern repeatedly, the researcher was able to probe the cultural and historical context of this work style to ensure the depiction of these habits resonated with informants, and thus had face validity.

Second, ensuring face validity also informed the long-term research design in that meeting observation was heavily weighted in the data collection schedule, since most collaborative work and decision making occurred in that setting. Third, criterion validity was supported by triangulating observed findings from the initial, more focused pool of informants with observations from an expanded interview sample at the end of the data collection period. This measure was designed to evaluate how stakeholders outside of the direct portfolio management process viewed the tasks and work cadences that the ‘inner circle’ carried out.

Finally, once these iterative cycles had been carried out through research design and verification with an expanded sample of process stakeholders, researchers focused on construct validity. We triangulated three theories to give extra depth and dimension in answering the research questions. An important element of ensuring construct validity, we found, was to test the resonance of theories selected with our practitioner sponsors, informants, and stakeholders [7].

6. Conclusion

We have offered our experiences in collaborative research employing theory triangulation as one template by which both researchers and practitioners can benefit from structured inquiry of a vague, practice-based problem. In our approach, the act of structuring the inquiry itself guided the research progression and helped build rapport and trust with
practitioners. Framing the initial research problem space through best practice literature and theory scoped the inquiry; continued iteration in the collaborative group of researchers and practitioners refined questions and the pursuit of answers. Our process employed multiple theories through triangulation, using existing knowledge to articulate phenomena, working from ‘what’ and ‘how’ (descriptive) to ‘why’ (explanatory) framing. By doing this research collaboratively, furthermore, we maximized opportunities to employ reliability and validation practices within naturalistic inquiry. This gives us both a richer understanding of the phenomena to share with the academic community, and more actionable recommendations to practitioners to guide the organization forward in its process evolution.

7. References