Forging a Diverse Research Community by Marrying an Odd Couple: Qualitative Research and Business-Oriented Project Management Processes

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FORGING A DIVERSE RESEARCH COMMUNITY BY MARRYING AN ODD COUPLE: QUALITATIVE RESEARCH AND BUSINESS-ORIENTED PROJECT MANAGEMENT PROCESSES

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ABSTRACT

While team-building and project management are common to business culture, the practices are less prevalent in the university environment. At teaching colleges, finding faculty time for research is a continuing struggle. In response to the time obstacle, faculty at a small, Midwestern university shared the load of a high-interest research project by dividing labor among a diverse 22-member faculty-staff team. They managed the project with Project Management Institute (PMI) processes, borrowed from business and government. This evaluation analyzes the research process itself, studying the impact of combining prescribed project management processes with traditional qualitative methods. It analyzes the health of the PMI-qualitative marriage in terms of (1) project quality and efficiency, (2) individual and organizational learning, (3) collegiality, and (4) team-member satisfaction with the research experience.

An inspection of educational research journals reveals few authors from small teaching colleges. With a heavy teaching commitment, finding time for research is difficult. Although the literature is inconclusive on the impact of university research on student learning, there is some evidence that the opportunity to conduct original research can strengthen not only the intellectual life of faculty, but also of the students they teach (Jenkins, 2000). In his 10-year study of Harvard students, Light (2001) found that working with faculty on research can be one of the most memorable experiences of a student’s college career. Below the college level, a wide variety of studies conclude that involvement in collaborative research can prompt teachers to improve instruction (Johnson, 1993; Kutz, 1992; Marriage & Garman, 2003) and become more reflective learners (Johnson, 1993).

While there is a sizable body of research on the results of collaborative research between university researchers and school personnel (e.g., Burbank & Kauchak, 2003; Herrick, 1992; Wiseman & Knight, 2003), there is limited study of the collaborative process itself, how the research is managed, and the impact of the collaboration on the researchers (Carter, Buckley, Walker, Grenz, & Martin, 1989; Mebane & Galassi, 2003; Solomon, Boud, Leontios, & Staron, 2001). We found no literature describing the impact of a large collaborative project on the faculty and staff of a small university and its research culture. Likewise, we found few references regarding the use of formal Project Management Institute (PMI) methods.
to manage academic research (Beach, 1988). This article contributes to the discourse in these areas.

**Background**

At a faculty brown-bag lunch on teaching strategies, two of us researchers presented Light's 2001 study regarding practices that helped Harvard students succeed. The discussion evoked faculty interest in replicating Light's investigation on our campus to test the generalizability of the results. Yet, Light's exploration took 10 years and involved dozens of researchers. Replication would present a challenge on a small campus with heavy faculty teaching loads.

We decided to hold an organizational meeting to discover the degree of interest in such a project across the university. Twenty-one people responded to an e-mailed invitation—faculty members from across the disciplines, two librarians, a dorm counselor, an administrator, an administrative assistant. (We later added a graduate student to the team.) Buoyed by the response, we deliberated over how to organize and train a diverse team, how to keep participants informed and the project on schedule. After a search of academic and business-oriented literature, we decided on nesting the traditional qualitative case study within the Project Management Institute (PMI) processes favored by business and government agencies (Haughey, 2008). This article evaluates the use of PMI processes as an organizing framework for a large qualitative educational study.

**Project Purpose**

Accepting Patton's definition of evaluation as "any effort to increase human effectiveness through systematic data-based inquiry" (Patton, 2002, p. 10), this qualitative evaluation considers the role of PMI processes in addressing communications and management issues of a large, interdisciplinary research team. The evaluation explores the degree to which PMI processes foster (1) project quality and efficiency, (2) individual and organizational learning, (3) collegiality, and (4) satisfaction with the research experience. It develops a model of how the PMI framework affects the qualitative research process.

**Perspective and Theoretical Framework**

In evaluating the results of the qualitative research/project management marriage, we rely on two theoretical traditions: organizational theory and methodology. In terms of the first tradition, organizational theory, this article analyzes the formation of a new organization—a research team, struggling to become a research community. In terms of the second tradition, methodology, the article examines the attempt to nest the more constructivist methods of qualitative research within more positivist project management processes.

There are a number of approaches to organizational theory, the first tradition. This work most closely matches Pettigrew's approach (1983). Pettigrew, in turn, built on the work of Selznick (1957) and Clark (1972). Pettigrew focused on the idea of creating organizational culture through shared symbols and language. He noted that "new organizations represent settings where it is possible to study transition processes from no beliefs to new beliefs, from no rules to new rules, from no culture to new culture, and in general terms to observe the translation of ideas into structural and expressive forms" (Pettigrew, 1983, p. 93). This evaluation offers the opportunity to examine organization building and the influences of introducing a system of processes to the nascent organization, the research team.

In terms of the second, methodological, tradition, the researchers adopt Patton's pragmatic approach to qualitative evaluation, using observation, journaling, and team-member focus groups to study the research process (Patton, 1990). However, the standards of collaborative...
Diverse Research Community: Qualitative Research and Business-Oriented Project Management Processes

Qualitative research offer a theoretical yardstick by which to measure the success of PMI processes as an organizing framework.

Schensul and Schensul (1992) saw collaborative research as work that links researchers to members of the community under study; the purpose of collaborative research is problem solving or social change. Schensul and Schensul asserted that collaborative research uses research methods to serve two major objectives: (1) ensuring that all parties involved understand and participate in all phases of the research process, and (2) encouraging the use of research results for the population under study. While the common partners in collaborative research are an organization that usually conducts research (e.g., a university) and another that does not (e.g., an elementary school), the present study combines segments of the university community involved in research (faculty) with less research-involved segments (e.g., dorm counselor).

Finally, the evaluation examines the combination of two methods with different epistemological bases. The study under the microscope, the study of student success, was a case study (Stake, 2005; Yin, 2003), specifically a collective case study (Stake, 2006), with data from multiple participants, sources, and researchers. As is common to qualitative research, the researchers sought to see the world through the eyes of the participants, here college students, creating meaning from their experience (Seidman, 1998).

While the PMI processes are more tools than theory, a theoretical perspective underlies the use of the tools. Dating to its 1969 founding, the Project Management Institute systematized precise methods of planning, controlling, and executing projects to support large endeavors, such as NASA’s space initiatives (Project Management Institute, 2000). It stores those systemized methods in the PMBOK©, or PMI Body of Knowledge. PMI processes are theoretical in the sense that they are systems-based, replete with flow charts, and the idea that the project interacts with a larger organizational environment (Morris, 1998). When the Project Management Institute defines a project "as temporary endeavor undertaken to achieve a particular aim" (PMI, p. 4), it sees the project as a snippet of life within the larger life of the organization.

There are five PMI processes: Initiating, Planning, Executing, Controlling, and Closing. There are also nine "knowledge areas," project integration, scope, time, cost, quality, human resources, communications, risk management, and procurement (Haughey, 2008). The processes were developed for large, collaborative efforts, emphasizing communication and satisfaction of all stakeholders. They offer methods and documentation for all phases of the project, used at the discretion of the project manager. For example, the planning phase includes estimated timelines, budgets, and notations of who will do what. These documents provide collaborative participants a unified source of information, allowing everyone to read from the same page.

Methods, Techniques, Modes of Inquiry and Data Sources

This article evaluates the building of a research team and the building of a research culture, noting the impact of project management on the qualitative research process. This research combines description with analysis, searching for patterns of phenomena. As researchers, we are also participant observers. Following Patton’s advice (Patton, 1990), we triangulate data collection, employing a variety of qualitative data collection methods regarding the research process: team-member focus groups, self-reflections, artifact and document analysis.

The diverse backgrounds of the principal researchers help ensure neutrality toward the phenomenon under study (Patton, 1990), results of the qualitative-PMI marriage. Only one of us has used project management methods in the past. Two of the four of us have emphasized qualitative methods in their previous research; two devote more of our research to quantitative methods.

Bias

Although one of us has spent most of her career in the private sector and has worked for a time as a project manager, as a group we share a similar
wariness toward business models of education. While we understand that business models can expand the range of ideas available to educators, we fear that, at their worst, the models can treat people as commodities and standardized test scores as profits, to be maximized. Rather than tightly embracing PMI practices, we felt free to adapt them to the needs of the project. (For example, with no budget and a volunteer team, we used a simplified project plan that does not include costs.)

**Five Processes**

As discussed in the theoretical section, projects, according to PMI, consist of five processes—an initiating process, a planning process, executing, controlling, and closing. In diagnosing the health of the qualitative-project management marriage, we analyze the pulse of the research team and the project as it navigated the five stages, or processes, of a multi-year substantive project.

In this evaluation, we observe the issues a large research team confronts as it uses project management to organize a qualitative collective case study.

**Initiating**

The object of PMI methodology is to deliver a project on time, on budget, and with high quality (Richman, 2002). The PMI initiating process is a time of thought that precedes action. During the initiating process, the project is defined and proposed to the organization. The project's sponsor, or owner, is located, and a project manager is chosen. During initiation, the project owner develops strategy and sets goals—considering (1) what risks the project might face, (2) the relationship of the project to its outside environment, (3) communication strategies, (4) project financing, (5) project milestones, (6) the proportion of work to be done inside versus outside of the organization; and (7) technical, legal, and logistical issues (Cleland & King, 1988). As a university research project, we faced a smaller number of issues than large commercial projects. But, the business model offered an exhaustive list that helped prevent us from overlooking an element.

In business, the sponsor often proposes the project, presenting its benefits to the organization. The sponsor provides resources and support. The sponsor can also serve as the project champion, marketing the idea to the organization's leadership; or the sponsor and champion may be two different people (Caldwell & Posner, 1998). The project manager handles the day-to-day planning and executing of a project. A project manager "has overall responsibility for planning, organizing, integrating, controlling, leading, decision making, communicating, and building a supportive climate for the project" (Richman, 2002, p. 30). The university research project blurred the roles of project sponsor, champion, and manager. We found that, as often happens in a small business, one person needed to wear many hats. As researchers, we served as project sponsors, champions, and as project managers. We needed to engage the university community in the project. The project also competed for our personal time and resources.

We formed a core team of four researchers from the College of Education, with an additional researcher from Arts and Sciences joining later for part of the project. An administrative assistant also worked with the project. Three of us, the two who spoke at the brown-bag lunch and the Arts and Sciences member who suggested the project, were new to the university, having just arrived that year. Another had worked for two years at the university, and the final member for five years. As noted above, one of those new to the university had just left the private sector where she had experience as a project manager; she served as principal manager in the core group.

**Figure 1**

<table>
<thead>
<tr>
<th>PMI Five Project Processes</th>
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<tr>
<td>Initiating</td>
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Diverse Research Community: Qualitative Research and Business-Oriented Project Management Processes

Risks

The team brainstormed a number of risks the project faced:

- With over 20 volunteers, will team members defy large-group theory that says individuals may feel less responsible for tasks (Steiner, 1976; Shaw, 1981) and follow through on their responsibilities?

- At a small teaching-oriented university, will we be able to meet team member needs enough to maintain their engagement?

- Will we be able to maintain tight enough communication to hold the group together (Stokes, 1983) when the population is separated by role, by building, and is scattered across two campuses?

- Will university undergraduates cooperate in the research?

- Will we be able to secure a grant to finance extensive transcription fees?

- Will the work outstrip our ability to keep up with it?

- Will the project increase collegiality or strain it?

Outside Environment

For the university study, we set two primary project goals: to investigate the factors that favor undergraduate success in a small, independent college and to enhance the retention rate at the university. As a secondary goal we hoped to form a diverse research community within the university. These goals meshed well with the general university environment, the environment "outside" our project. The university's mission statement contained language regarding inclusiveness. We perceived our project as inclusive and geared toward both individual and organizational learning.

Communication Strategies

Central to project management communication is a common project database, open to all team members. We requested a project Blackboard site, giving instructors' rights to every team member. To preserve the integrity of documents, we established the rule that members would save document revisions as new documents, including the creation or revision date in the file name. The core team planned weekly lunch meetings; the larger project team requested monthly meetings.

Project Financing

The project began on a shoestring, with project members contributing the money for pizza and cokes at focus groups. The College of Education provided some overhead support for copying costs and occasional refreshments. Midway through the project we applied for support with transcription from a university fellowship program.

Project Milestones

Instead of formulating milestones at the initiation stage, the project team jumped quickly to drafting a project plan that included milestones. This step is described under the Planning Phase.

Proportion of Work Done Inside and Outside the Organization

While businesses often subcontract large pieces of a project, with an uncertain source of funds, the group hoped only to outsource tape transcription. If we were unsuccessful at securing grant funds, then we would seek help from university staff, slowing the pace of the project.

Legal Issues

Our project did not face the typical legal issues that confront business projects, for example drafting vendor contracts. Instead, we needed to consider the rights of our subjects, draft informed consent forms, and send our proposal to the university's Institutional Review Board. After the IRB approved the university project, we were able to collect data from college seniors.
Initiation Phase Summary

In the Initiation Phase, the core project team drew on PMI processes to offer hints on how to strategize a new project. The processes pushed us to examine factors we might otherwise have overlooked, for example, the risks our project faced. The processes also encouraged us to address certain issues, for example communication, early in the project before they became problems. Although our concerns did not exactly match those of business, we were surprised at how many PMI factors fit our project.

Planning

During the planning process, ideas developed during initiation are formalized in a project plan. Often, in a brainstorming session, a moderator covers walls with paper; and team members record on sticky labels all of the tasks that build to project milestones. The moderator places the tasks in rough order on the walls. Later, the project manager converts that paper plan to a computer document, commonly a Microsoft Project gantt chart, layered with levels of detail that show the relationship of each project task, in time sequence, to other tasks. The project manager assigns tasks, using a work breakdown structure, recording the financial costs associated with them, and refining the timelines. The chart helps the team see the critical path, the timeframe from beginning to end, and the predecessors and dependencies, which tasks must precede others (Pinto, 1998). For example, the interviewer-training activity would occur before the first participant interview; sample selection might take place simultaneously with interviewer training. Under the high-level plan, there are many mini-plans, for example a communication plan, a change-management plan.

Critical to the planning stage is a shared understanding of the project's scope. How many participants will the team recruit for focus groups? How many participants will they tap for individual interviews? What research questions will they address? Understanding the scope permits precise resource planning.

Project Plan

With yellow stickies, flip charts, and white boards, we began planning, faithful to PMI processes. Once we established the tasks and milestones, the principal project manager transferred that information to a less-formal five-column Word table, headed by Task, Person Responsible, Date Started, and Date Completed. (See Figure 2). With the additional milestone of recruiting a research team, our milestones matched those of most university research projects: literature review, finalizing a research proposal, obtaining IRB approval, training moderators and interviewers, recruiting focus-group participants, scheduling follow-up interviews, writing and submitting grant proposals, transcribing and analyzing data, writing, presenting, and publishing. We posted the plan on Blackboard and updated it several times in the first months of the project. As the project wore on and the execution phase tasks enmeshed us, we referred less to the plan and, in certain periods, neglected to keep it updated.

Assigning Tasks

PMI processes assume that a project manager will assign tasks by virtue of demonstrated skills, interest, and knowledge. Team members serve on projects as part of their corporate work. Peer and manager evaluations on their annual performance reviews offer team members an incentive for high performance. Thamhain (1998) notes that in business teams members are “taking higher levels of responsibility, authority, and control for project results” (p. 274). He finds declining levels of hierarchically-organized teams.

When we e-mailed an open invitation to join the project, we gathered volunteers, rather than team members expecting work assignments. Incentives needed to be intrinsic—collegiality, interest in service, potential additions to curriculum vitae. Given our inability to direct people to tasks and to offer incentives, we were surprised by the effectiveness of self-selection. As noted earlier, our e-mail netted more than 20 volunteers from faculty, support staff, residential life, admissions, 3

We represent the names of all project participants with pseudonyms.
Diverse Research Community: Qualitative Research and Business-Oriented Project Management Processes

library, and graduate students. During the course of the project, several more people offered to help. Also, for the most part, project members tended to volunteer for tasks that aligned with their roles: librarians assisted the literature review; English and Communications faculty offered to read and interpret comments; and admissions staff interviewed students.

After several large-group communication sessions where we solicited feedback on whether team members felt involved to the proper degree, the volunteers stated that their degree of involvement satisfied them. However, they requested more communication about the progress of the project. The availability of project documents on Blackboard slipped from people's minds, and we needed to remind them of that resource. Although we scheduled regular large-group meetings, a different group of project members attended each meeting, reducing the regularity of communication.

Time

While qualitative researchers plan their research, the nature of qualitative research is fluid, following the project where it takes the researcher. It is impossible to consult the project team before extending the length of an interview or a focus group. Each researcher needs flexibility regarding time. Our plan would not offer the same precision as a traditional PMI plan.

Planning Phase Summary

The planning phase for the Making the Most of College study paralleled PMI processes in the construction of a thorough project plan, with the input of a variety of project members. Given the small scope of our project, we used a less formal plan, eschewing the multi-layered Microsoft Project gantt chart in favor of a Word table. The planning phase departed from PMI processes in the assignment of personnel to tasks. We had less knowledge concerning the skills of our volunteers than would business project managers. In the upcoming execution process, these personnel had less independence than many business teams as the project work was unfamiliar to most volunteers.

Executing

The executing, or implementation, process of the project is the actual performance of the work. Projects are executed successfully when they finish on-time, on-budget, meet project goals, and are accepted and used by clients (Pinto & Slevin, 1988). Pinto and Slevin (1988) conducted re-

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>People Involved</th>
<th>Date Started</th>
<th>Date Completed</th>
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<tbody>
<tr>
<td>To investigate the factors that favor undergraduate success in a small independent college</td>
<td>Susan, Tom, Cindy, &amp; Jane</td>
<td>4/19 1 pm</td>
<td>4/19</td>
</tr>
<tr>
<td>To enhance the retention rate at XXX University</td>
<td>Tom 1st draft</td>
<td>4/19</td>
<td>4/23</td>
</tr>
<tr>
<td>Faculty and parties who respond to invitation</td>
<td>Jody find room for 5/10 meeting</td>
<td>5/10</td>
<td>4/27</td>
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search with 50 managers to discover the actions project managers could take to foster implementation success. They discovered 10 success factors. Three were strategic: clear goals, top management support, and a detailed plan. Seven were tactical: client consultation, people issues (recruitment selection, and training), technical tasks (availability of technology and technical expertise), client acceptance (marketing the solution to the client), project control issues, solid communication, and effective troubleshooting.

For our research project, three of these issues had limited application: top management support, client consultation, and client acceptance. While we needed permission to conduct research on campus, once we received that permission we were somewhat independent. Management did not control the allocation of resources to our project. And, while ultimately we had a client, the educational profession and the students and faculty who might benefit from our findings, consulting with this client was impractical. Eventually, we wanted to market our results to incoming freshmen through a seminar, but that lay in the future. We had achieved two more issues, clear goals and technical support. Five challenged us: a detailed plan, people issues, project control issues (addressed in the next section), solid communication, and effective troubleshooting.

Detailed Plan

As noted above, application of a detailed plan to a qualitative research project could strain against the methodology; and as the project wore on, we consulted our plan less often. However, we did find that having a plan saved our forgetting to conduct parts of the project. For example, we were making final assignments for focus groups, consulted our plan, and discovered that we had forgotten to include students from two academic disciplines. In a project with so many workers, the work breakdown structure also helped us know who was scheduled to do what when. Finally, the plan reminded us when to begin a task.

People Issues

As with many projects in business, people issues were our biggest challenge. We needed to bring a diverse group of people to a common knowledge set and understanding of project procedures. To ensure consistency, we developed a training protocol for all researchers engaged in a similar task. Project managers created training modules for data collection, including focus group facilitation, interviewing, and taking field notes. The training sessions appeared effective. Many team members had prior experience in the tasks and simply needed to understand the project-oriented details.

We fell down over collaboration. We were so eager to collaborate that it was difficult to step aside from the friendly culture of the university to frank discussions necessary to ensure project quality. Also, without the documented history of achievement available in a business setting, it was sometimes hard to know whether a team member’s self-identified competency matched actual competency.

What we called the “Bonnie situation” illustrates both of these points. Our task was developing focus group and interview questions for the college seniors. Using the project goals, proposal, and research questions, the core team, minus one, had brainstormed a list of potential questions. The team needed to pare that list to a manageable number, dividing them into questions for the focus groups and questions for individuals.

Bonnie, the part-time project manager, with another member from the large group, volunteered for the job. When the two completed the task, the questions that resulted didn’t match either those on the brainstorming list or the original research questions. The proposed questions also broke a number of the rules for asking questions (e.g., ask only one question at a time). In our desire to be sure that all participants felt included, we ignored PMI efficiency rules, that, for consistency, those who started the task should have finished it. In addition, we learned that self-identified competency did not necessarily match quality standards needed for the project.

Initially, the core project managers remained uncomfortably silent about the unusable questions. In a later meeting when Bonnie was absent, the four core project managers reflected on the issue
and the ways they related to each other. We realized that by working on the project and in close proximity at the College of Education, we had developed a trust with each other that permitted frank talk. We had much less contact with the part-time project manager and the larger project group, scattered in different programs and on another campus. We did not feel as comfortable critiquing their efforts. However, the Bonnie discussion brought the project managers to recognize the importance of controlling project quality. We discussed how to deliver difficult information in a non-judgmental, matter-of-fact manner.

Businesses face similar issues when they pull cross-functional teams together, and they spend some effort at "team building." Academia rewards individual efforts—teaching skills, research output, obtaining grants, and, to a lesser degree, service. There is little emphasis on teamwork. While we conducted a team-building exercise at the beginning of each large-group meeting, we realized that, for future projects, we would spend more time team-building at the beginning of the project; and we would consult PMI practices for high-performing teams.4

Besides the "Bonnie situation," we faced the prospect of how to motivate a diverse team. Research was included in faculty assessment; however, at the time, the university gave it little emphasis. We were surprised, then, to find participants willing to devote large amounts of energy toward training, literature searches, project meetings, and data collection.

When we asked project members what attracted them to the research, we received answers as diverse as the participants. An English professor was interested in whether the students would find that the writing process helped them succeed. A librarian wanted to know better the students she worked with every day. A dean of graduate admissions hoped to discover more about adult students. A staff member who worked closely with Latino students hoped to find how to support them better. A newer member of the research community wished to have known her colleagues better. In short, there were nearly as many motivations as group members. For most, the motivation, while job-connected, would not help advance their careers. They were involved to help and to learn, doing pro bono work. As project managers, we concluded that choosing a research topic with wide appeal lay at the heart of motivating a diverse team.

Solid Communication

Earlier we described our communications vehicles—the Blackboard database, weekly core team meetings (open to all), and large-group meetings every other month. (See Figure 3 for a section of a sample update.) The core team found one of its most effective tools to be the minutes taken at their weekly team meetings. The minutes recorded project issues, including volunteers for tasks; they archived project decisions. While the core team felt in touch with the project, the large group expressed feelings of disconnectedness. As noted, we rescheduled the large-group meetings from every-other-month to monthly. Since we

4 See Thamhain (1998) for an extensive list of team-building suggestions.
did not have to communicate with sponsors and clients, we spent less project effort in communication than we would have done in business.

One of the most valuable aspects of the PMI methodology was the shared vocabulary it provided. The theory section noted Pettigrew's emphasis on shared symbols and language as a way to create new organizational culture (Pettigrew, 1983). PMI jumpstarted that process.

Effective Troubleshooting

The presence of four experienced researchers with whom to troubleshoot issues proved effective. Our major issue involved project scope, which we will discuss in the next section.

Summary of Executing Phase

In the Executing phase, we faced overcoming a university culture of "niceness" to address project quality issues frankly. While the core team had developed a close, trusting relationship that permitted frank talk, we had to stretch to extend that frankness to the wider team. In future projects, we would spend more up-front time on team-building, as recommended by PMI processes. Also, since this was a first research-community effort, the volunteers had less control over their section of the project than would experienced team members in business.

In terms of communication, the minutes taken at weekly core-team meetings helped not only communicate the results of the meetings but also kept the project on-track. Blackboard, although an efficient storage place for documents, was unobtrusive; we had to remind the larger team to consult Blackboard on a regular basis. To our surprise, the larger team preferred in-person meetings, so we increased meeting frequency to once-a-month. Finally, it appears that choosing a research topic with wide appeal is critical to drawing wide campus support.

Controlling

PMI processes view project management as a constant tension or trade-off between the scope of the project, the time it takes, and the financial costs. (See Figure 4 for the Project Management triangle.) For example, as clients or managers request changes in the scope of the project, there must be compensating changes in one or both of the other factors—cost or time. Likewise, if the client wants the project to finish a month early, the project manager must reduce the scope or increase the costs, or both (Richman, 2002).

The Controlling Phase is the process of keeping the three sides of the triangle balanced by establishing procedures for recognizing, evaluating, and approving changes; for studying alternative methods of handling the changes; for communicating changes to all stakeholders; and for documenting changes, revising the project schedule (Richman, 2002).

Control Issues

We had unusual pressure to increase project scope. While we had no clients forcing changes on us, we had the pressure of trying to accommodate those who wanted to contribute to our effort. To solicit seniors for focus groups and interviews, we visited the capstone classes for each major across the campus, explaining the project, and asking for volunteers. On our small, friendly campus, nearly half of the seniors volunteered to participate. Instead of the 80 focus group participants we originally sought, we had more than double that number. We needed to consider whether we could accommodate all of them. We compromised, deciding that we'd conduct focus groups with all of them. However, depending on whether we obtained financial support, we would
Diverse Research Community: Qualitative Research and Business-Oriented Project Management Processes

postpone transcribing all of the sessions. The increased number of focus groups strained our resources at the busy end of the academic year.

Summary of the Controlling Phase

While we didn't face the business challenge of trying to please a client interested in "bells and whistles," we faced the challenge of a culture of inclusiveness. As noted earlier, our university mission contains language regarding inclusiveness. Accommodating our cultural milieu stretched our scope, adding time to our project. Because of PMI, we recognized the change in scope and made an informed decision about that change. Without the project management vocabulary of "change in scope" and the reminder that most projects face pressure to expand or contract, we would have been slower to recognize the issue of including more student-participants and less able to discuss a solution.

Closing

Spirer and Hamburger (1988) suggest that project closing involves six elements: conveying deliverables to the client, creating project history, closing the financial books, disposing of any excess resources, confronting any team issues, and communicating closure to stakeholders. In the case of the university project, "conveying deliverables" involved presenting the results of the research at a university-wide faculty research conference and at an American Educational Research Association Conference (AERA). The team shared the results with the university President and Provost by sending them the written AERA paper. That paper is now in publication.

While the presentations mentioned above conveyed deliverables to internal university stakeholders and to the larger profession, they also communicated project closure to the large project team. In terms of other closure elements, the process of writing this article documented project history. There were no financial books to close or resources to distribute. Since team members retained their usual university jobs, there was no need to reassign personnel at the end of the project, as there often is in business and government. Regarding the one resource generated, data, project members retained the data for the three years prescribed by the IRB. Since the university project had spanned years, and by the end of the project the larger research team no longer met, the PMI closing process reminded the core team of the importance of communicating results to all stakeholders.

Health of the PMI-Qualitative Marriage

How did the odd couple work out? Are PMI and qualitative methodology headed for the divorce court, or are they ready to sign on for a longer stint? In our view, the marriage was not nearly as bumpy as we would have thought, considering PMI is a more standardized, positivist partner and qualitative research is more flexible and constructivist.

Project Quality and Efficiency

We used the PMI processes as a framework, but were able to bend them enough to accommodate our environment, fitting the needs of a qualitative project within our university culture. The structure helped us get up and running quickly; we didn't have to invent processes to control a good-sized project with a large, diverse staff.

PMI processes reminded us of best practices—planning our project, keeping everyone informed, watching our budget, thoughtfully making decisions. We faced unpleasant consequences more often when we strayed from the processes, forgetting to consult the plan, or afraid to deliver hard news that might hurt someone's feelings. Both for those who had worked on large projects and those who had not, the processes provided a shared vocabulary that made communication easier. We earlier quoted Pettigrew that "new organizations represent settings where it is possible to study transition processes from no beliefs to new beliefs, from no rules to new rules, from no culture to new culture" (Pettigrew, 1983, p. 93). We found that PMI did, indeed offer a set of new rules with which to run our project. As shown below, the new research organization evolved through small and large group experience and the shared culture of the university team members.
Individual and Organizational Learning

In one of the meetings with the diverse large group, we asked project members anonymously to reflect in writing on a number of open-ended questions about the project and their learning. When asked if they had learned anything at all, every respondent replied in the affirmative. The responses fell into two main themes, learning about research skills and learning about the organization.

In the research skills area, responses covered gaining greater understanding of research in general and also of particular processes. Regarding a general gain, a team member stated, "The study helped me understand how to conduct a research study." More particularly one member noticed that interviewing skills were more difficult than they first appear: "Listening to, focusing on, and recording what participants communicate, while keeping my own evaluations under wraps, require strong concentration." Still another discussed the difference between qualitative and quantitative research. "I do not have a strong research background, but I can see how this kind of qualitative research can reveal information that quantitative studies cannot."

Regarding the organization, a respondent expressed a deeper understanding of organizational culture. "I've learned that Midwest has a community-oriented culture that spreads beyond the faculty. We were overwhelmed at the number of student responses." Another stated, "Working collaboratively makes research possible [here]." Most of the organizational responses related to collegiality. They are summarized below in the collegiality section.

We also queried project participants on whether the project (investigating student success) had changed an aspect of their behavior—their teaching practices. About half responded in the affirmative. Here is a typical reply: "I have been impressed with student enthusiasm for 'hands-on learning.' This has reinforced my efforts to teach my instruction session in a computer lab where possible, as opposed to the usual lecture-demo instruction." One participant commented more broadly that "qualitative research with college students helps the faculty enter the world of their students. Greater connections between faculty and students are likely when professors know their students well." Some noted that the study has not influenced their teaching; others speculated that the final study results might affect their methods.

Besides asking about teaching practices, we asked whether the project affected an attitude—whether it made respondents "want to do some work of your own." Most replied affirmatively; but some stated that before the project began, they already had this interest. The affirmative replies ranged from the enthusiastic, "Absolutely!" or "Yes, it's fascinating work." to the cooler, "In the future." One participant suggested that, "The cooperation of the community has made me want to conduct more collaborative research here."

In sum, individuals grew in knowledge of research and its processes. In many cases, their attitudes and actions changed. Based on what they learned, they expressed the intention to change teaching practices and to conduct their own research. The organization gained a cadre of people who knew each other better and were willing to work together. They seem committed to use their knowledge for the betterment of the students.

Collegiality and Satisfaction with the Research Experience

A question on whether the large project was a good way to do research stimulated many respondents to mention the benefits of collegiality. Commented one, "Yes. I think it deepens relationships across campus between different departments. I also believe it helps distribute the workload to make a large study possible." Other respondents commented that the project brings together faculty and staff or simply, "I've enjoyed deepening my relationships with my colleagues." Another stated appreciation for, "new people I've gotten to know and respect." When there was dissatisfaction, it seemed to relate to role confusion; "Sometimes I was unsure where I fit in the project."
Summary of Marital Health

Smith et al. (2000) note that dialogue and problem solving help individuals create shared knowledge, and Senge et al. (1999) assert that learning teams can transform an organization into a learning organization. Working within the structure of PMI processes helped the core team create shared knowledge, and bringing that knowledge to the organization helped promote a research culture. Both results testify to the health of the PMI qualitative marriage. In addition, the organizational project management structure did not interfere with the constructivist approach used in the qualitative university case study.

PMI Research Model

Figure 5 illustrates a combination of the PMI model used in our study and the elements from Creswell’s phases of research from his research spiral (Creswell, 2002). We have superimposed the research elements in italics on the appropriate stages of the PMI Research Model.

#All italicized elements are from Creswell (2002).
*Cleland and King (1988)
**Pinto (1998)
***Pinto and Slavin (1988)
****Richman (2002)
*****Spirer and Hamburger (1988)
PMI model. The asterisks indicate the project management sources used to supply the project steps used in at each stage. While research spirals through its own phases, with much movement back and forth as ideas come and are revised, PMI methodology emphasizes that projects, by definition, have a crisp beginning and an end. The dotted line in the model indicates that research needs from one project could spiral into the development of a new project.

In an era of shrinking university funds and increasing teaching loads, this research documents a method for faculty to divide research tasks among a wide-ranging team. This division encourages a more diverse research perspective and establishment of a research culture. It also documents a method for faculty to reduce research time commitments, freeing them to lead more balanced lives.

Importance of the Study and Recommendations

Would this process work at other institutions? Each of us four core project managers had a good deal of work experience before we came to our university, and each has noted that it is an unusually happy place, free of much of the competitive trauma that can plague universities or business. Anecdotally, those in the university comment that the College of Education is a particularly friendly place. (We suspect that the lack of rancor had to do not only with the university's culture, but also with the abolishment of the tenure system for a period of time in favor of multi-year contracts. During this research, faculty competed only against themselves over whether their contracts would be extended. Also, among undergraduate faculty, especially, there was more emphasis placed on fine teaching than on publication.) Given this unusual degree of cooperation, we speculated whether PMI would permit diverse groups to work together as successfully in other places. Would there be more wrangling about who got to publish what? We see this as a fruitful area of future research.

Although quantitative research projects would seem to blend more naturally with project management's positivist heritage, another potential research area would be how project-management processes support quantitative research.

For those interested in gathering a wide-ranging research team, we make the following recommendations:

- Selecting a research topic: Choose a topic that will engage a wide variety of university roles.
- Building the team: Spend time at the beginning of the project and at each large-group meeting team building.
- Retaining volunteers: Allow your team members to choose their type and degree of participation to accommodate varied schedules and interests.
- Supporting volunteers: Plan training for the volunteer workers to ensure consistency and quality.
- Developing a plan: To keep the project on-track, develop and maintain a detailed project plan that notes who does what when.
- Communicating: Create an open database of project documents (Blackboard), e-mail updates, and hold regular small and large-group meetings.
- Keeping Records: Besides updating the project plan, take minutes of all team meetings as a management resource.
- Communicating the project to the wider community. Develop a plan to share project results, but, to maximize participation, also talk about the project as it’s happening.

References

Diverse Research Community: Qualitative Research and Business-Oriented Project Management Processes


