Management and Organization Review 7:3 461–469
doi: 10.1111/j.1740-8784.2011.00224.x

Working in Research Teams: Lessons from Personal Experiences

Thomas W. Lee[1] **and Terence R. Mitchell**[1]

[1] *University of Washington, USA*

ABSTRACT Managing a successful research team involves a variety of activities and potential issues. In this article, we discuss these issues based on our experience of having worked together for 20 years with regular team meetings that include Ph.D. and undergraduate students and occasionally other faculty colleagues. We attempt to describe the challenges that occur, including some ethical issues, and distil the knowledge we have gained over the years. We pose and answer nine questions about our team processes and procedures and end with a brief summary of key learning.

KEYWORDS collaboration, ethics, faculty–student relationships, interpersonal behaviour in teams, research process, research teams

INTRODUCTION

We have worked together for over 20 years. We started with just the two of us talking with each other about research topics and professional matters. Because that exchange was comfortable, familiar, and demonstrably productive, and because both of us worked well with structure, we began regular research meetings that have gone on once a week for over 20 years. These meetings have included Foster colleagues, visitors, doctoral students and graduates, and colleagues at other institutions as well (via conference calls). Through publications in the best journals and edited books with high visibility, our team seeks to advance theory and research in management, facilitate the careers of our students and colleagues, and fulfil the Foster School of Business and University of Washington's missions to create and disseminate knowledge. At the risk of being immodest, our research team has achieved some success along the way.

In the present article, we briefly describe how several potentially sensitive and ethical issues are managed in this team setting. More specifically, we address the following: What are the authorship issues? Should another person join an ongoing research project? Should the same data be used in multiple studies? What happens

when a study collapses? Do the team leaders need to be a student's dissertation chair? How do students join the team? Do we monitor student progress? How do we deal with professional questions? What do we do when someone leaves the team?

ISSUES IN RESEARCH TEAMS

Some Background

From the outset, we sought transparency, fairness, and inclusiveness in the team's processes and outcomes. Initially we were very candid (with trust increasing over time as well) in sharing opinions on a project's likelihood for success, personal difficulties due to health, family, or work conflicts, and personal interest in a particular project. Across team members, the different demands in our personal and professional lives are recognized and respected. At each meeting, e.g., members always begin with 'social updates' that include sharing what was done for fun over the previous week [e.g., movies, plays, sports, and even salsa dancing (although not by either of us)] and/or immediate issues in our lives (e.g., buying a red convertible, lecturing on cruise ships, and climbing Mount Rainier). In turn, 'academic updates' (e.g., students' progress on written exams, dissertations, and job searches; progress on research projects that are not immediately associated with the team) immediately followed with 'teachable moments' interjected by us as often as possible. In addition to our joint work, each of us has worked separately on other projects over the years, administrative roles for the Foster School and professional roles (e.g., both of us have had various leadership roles in the Academy of Management).

What are the Authorship Issues?

We explicitly communicate early on and reinforce over time that a *first author* should create and/or champion new ideas, serve as project manager for a manuscript, and write the first draft.[1] Other authors must make meaningful contributions by facilitating, for instance, the paper's theoretical development, analytical issues, data gathering, analyses, and/or interpretations. Through the principles of transparency, fairness, and inclusiveness, the research team must agree upon who the first author will be. In turn, the order of authorship of the remaining members should be mutually agreed upon as well, but if ambiguity remains after such deliberation, the first author (often the team leader) is expected to take a strong role in the final determination of the order of authorship. For example, our first article on the unfolding model of turnover had Lee as first author because he induced the original ideas and wrote the first draft (Lee & Mitchell, 1994). Later on, our initial articles on job embeddedness had Mitchell as the first author because he induced

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

the original ideas and wrote the first draft (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001; Mitchell & Lee, 2001). In other articles, a student member of the team generated the original idea that the team debated, developed the idea into more cogent theory and hypotheses, gathered and analysed data, and interpreted the statistical results (e.g., Felps, Mitchell, Heckman, Lee, Holtom, & Harman, 2009). Early in the process, we all agreed on the order of authorship, with the understanding that things could change and that the first author was the final decision maker on these issues. Chen (2011) in this issue offers further discussion of the authorship issue.

Should Another Person Join an Ongoing Research Project?

The answer is yes. However, this decision becomes more difficult the further along the project is. During the planning or preliminary discussions for a study, any interested team members can become active contributors and thereby co-authors.

With one of our current projects, for instance, the paper's theoretical grounding was reasonably well developed; the bulk of the data had been collected and analysed; and a first draft completed. Nonetheless, the study's three authors (of which Mitchell and Lee were second and third authors, respectively) judged that more data needed to be collected, analysed, and interpreted. Because the authors had many conflicting demands (e.g., from other studies, administrative responsibilities, injuries to the family dog), the study progressed far slower than expected. As a result, one of us suggested to the first author that another author might be added who would 'get things done'. In the absence of this new author, the study would likely languish for an unacceptably long time. In this example, another team member was asked about contributing to the study and co-authoring; the member agreed to join; the additional data were collected and analysed; and by mutual agreement, this person became second author on the manuscript (which is now under review at a major journal). Adding this person late in the process was necessary to complete the study.

What was the ethical issue in this situation? Had the new team member been added as a co-author only to finish minor editorial work (e.g., complete the references) and/or to 'pad' the team member's vita, an ethical question could legitimately arise over the sufficiency of contribution. A secondary issue might also be the adequacy of our role modelling for students. In the absence of a substantive contribution to the study, we believe that adding another co-author would have been wrong. In this case, this person made key contributions, and we believe that no ethical problems arose.

Should the Same Data Be Used in Multiple Studies?

Perhaps coming from the experimental tradition in our field, the ideal may be to collect a completely new data set for each publication (e.g., independent data for

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

each experiment). In organizational settings, however, publishable data are simply difficult to obtain. As a result, many field researchers seek to publish multiple papers from a single data collection effort (please see Kirkman and Chen, 2011 in this issue for a thorough discussion of this issue). In our experience, professional norms about how to use data across multiple publications have only recently solidified. During the 1980s and early 1990s, e.g., we heard this question discussed at various editorial board meetings, hallway conversations at national conferences and symposia on research methods. The collective wisdom back then seemed to be that different research questions and different theoretical grounding justified the reuse of data (i.e., multiple publications with the same data). In our judgment, the advent of meta-analysis led to a revised collective wisdom: field data should be reported only once, and if it is used across articles, the multiple use should be made explicit in the paper and to the editor upon submission to a journal.

In our work, we try to use new data for each of our studies. More specifically, the dependent variables and their major antecedents should not be published in a prior journal article, although we are comfortable using common control variables across publications. If existing data are reanalysed and re-reported in a subsequent publication, which can be legitimate and desirable, we would be explicit about what data had been reported elsewhere. In Mitchell and Lee (2001), e.g., we reviewed our prior research, mentioned some ongoing studies, and reported some empirical findings. Most relevant to the present article, we explicitly stated in the text that the reported findings would not be reported elsewhere (i.e., in a subsequent journal publication).

What Happens When a Study Collapses?

We once designed a 3-year-long field experiment that nicely fit into our stream of research on employee retention. In fact, this field experiment was seen as a possible capstone to our research on an employee's job embeddedness. We obtained not only permission but substantial management support from a large company with multiple large facilities across the U.S. We drew a very large random sample of participants in multiple locations around the country. We identified the sites to receive treatments to increase embeddedness and corresponding control/comparison sites, and then, the actual intervention began. Although problems arose, the experimental intervention appeared to be internally valid. After 3 months, to our surprise, the company was suddenly sold, and management's commitment to our field experiment greatly lessened with equal suddenness. (In hindsight, several of the problems that arose may well have been signals that the company was in the process of being sold.) In turn, the seemingly 'wonderful' field experiment collapsed, although senior managers allowed limited survey research to continue.

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

In our joint and individual experiences, our best research followed the traditional process of: (i) starting with a theory; (ii) developing the hypotheses; (iii) developing the measures for the dependent and antecedent variables; (iv) accessing the research site; (v) collecting data; analysing and interpreting the data; and (vi) writing the manuscript. This collapsed experiment left us with theory and variables measured over time but with no valid treatment. What does one do?

Given that the data were already collected, staying focused on the original theory was quite challenging. There was great temptation to analyse the data based on loose questions or whims. Nonetheless, the team tried to stay as close to the original theory as the situation would allow. Specifically, we asked what might be the most interesting questions that move the original theory in new directions, and did we have the data to answer those questions in a meaningful fashion? Following our team's prior process and practices, one student member pushed us to think about group effects on our focal outcome, individual level employee turnover. We engaged in substantial debates on theory-based hypotheses, investigated whether certain analyses could be done (e.g., could HLM handle a binary outcome variable?) and judged whether our data had meaningful process variables to answer our new questions. We believe that better research emerged by staying or trying to stay focused (or close) to our original theory and developing conceptual reasons before testing ideas. It was, nevertheless, a very different experience than what we experienced in our prior studies and publications. Fortunately, the outcome of this different process proved successful.

Do the Team Leaders Need to Be a Student's Dissertation Chair?

Students on our team often feel (and often ask directly if there is) some implication that Lee or Mitchell should be their dissertation chair. In our team, we have an explicit answer to this question: no. The chair of the dissertation committee should be a person with whom the student is very comfortable working with and shares an intellectual interest. Perhaps most important, the chair should add intellectual value to the process. In our team meetings, we communicate to students that we have a deep understanding of certain topics whereas we have far less knowledge about others. As a result, neither of us needs to be chair or a member on a student's committee because we might have insufficient familiarity with the chosen topic. Although we have achieved some success with the publication of theory and research, we believe it would be a disservice to the student to serve as chair or member of a dissertation committee without being able to add substantial value to the process.

How Do Students Join the Team?

The team typically has three student members at a given time. Early on, the department chair simply assigned student assistants to us. Later, we selected

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

students who expressed interest in our areas of study (e.g., employee turnover and retention) and who had shown corresponding interest in our doctoral courses. Recently, our department had a year in which no doctoral students were admitted in the organizational behaviour area. Our knowledge of student interest in our team was helpful to sustain the size of our team and the 'fit' of its members.

In addition to doctoral students, several undergraduates, who expressed interest in pursuing a doctorate in organizational behaviour, approached us for opportunities to participate in research. Although several have indeed worked on our studies, only a few of our undergraduates (to our knowledge) have actually enrolled in a doctoral programme (at another university). One of these former undergraduate students continues to work with us to this day.

In our experience, doctoral students quickly learn to identify the well-published from the less-published scholars in a department, if not an entire business school. In a similar fashion, students quickly identify those well-published faculty who want to work and/or co-author with them. Matching interest, desire, and experience facilitates good student/faculty collaboration. In a sense, the 'market is efficient'. Because both of us (jointly and separately) have achieved some success at research publication, many doctoral students are drawn to our team. However, we are acutely aware that among our colleagues, particularly junior faculty, a perception could arise that we are collaborating with too many students (when the pool is perceived as limited). As a result, we are quite mindful to avoid this possible perception. We ask the chair of the department if everyone who wants or needs a student has one. We make sure that having them join our team does not seriously disrupt the research activities of other colleagues. We are mindful of not being too 'selfish' (an ethical issue for sure) in terms of sharing doctoral students with our colleagues in the department. Fortunately, in our department, we do not have the problem of some colleagues shirking their responsibility of not mentoring doctoral students.

Do We Monitor Student Progress?

As mentioned, we have our weekly 'academic updates', in which our students inform us of their progress towards graduation. If one of us is the student's advisor or serves as chair of the dissertation committee, such monitoring is simply part of the role. If neither of us are on the committee, such monitoring remains helpful in that it publically identifies their progress in the programme and can serve as another source of advice to the student. (We have a good cop/bad cop reputation with one of us being known to ask for the specific date of a student's dissertation proposal within one week of that student's passing his or her written exams or for the specific date of a student's dissertation final defence within one week of that student's successful dissertation proposal defence.)

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

Asking Professional Questions

As part of our monitoring, we offer advice on students' professional questions. Much like assistant professors, students commonly ask how many publications other universities might expect when hiring, how much teaching should be done as a doctoral student or should they co-author with their advisors on the dissertation? (In our experience, the answer to these questions is 'it depends'.) As part of our normal social and academic updates, we explain our views on various professional responsibilities and awards[2] as they arise. For example, we explain our department's normal process for faculty review as it annually applies to us. Because ad hoc reviewing is a professional expectation, we explain our views on accepting (e.g., when we believe we are qualified and can respond in a timely fashion), declining (e.g., when we are not qualified and cannot respond in a timely fashion), or asking editors for extensions to the due date (which is quite common because most editors would gladly allow extra time in exchange for better work). Because we currently serve or have served on major editorial boards, we explain our views on the obligations (e.g., these reviews have priority over ad hoc requests) and rewards (e.g., professional prestige for the individual but also for one's business school) from board membership. At times, we have allowed a particularly talented student to conduct a supervised ad hoc review, when permitted by the journal's editor and reviewer guidelines, because we felt it would be a good learning experience. We routinely explain what various honours (e.g., selection as an organization's fellow, receiving an endowed professorship), administrative roles (e.g., department chair, associate dean, heading a programme), or sabbaticals mean to one's career. [For further discussion of this issue, please read Aguinis & Vaschetto (2011), and Rupp (2011) in this issue.]

Leaving the Team

Across our 20 year history, we are quite pleased that nearly all of our student members have graduated and moved to academic appointments. Some show no interest in studying our focal topic of employee turnover (or our secondary interest in goal striving) ever again. Some continue to work with one or both of us although not on turnover (e.g., Bluhm, Harman, Lee, & Mitchell, 2011; Lee, Mitchell, & Harman, 2011), whereas others sustain an active research agenda on turnover and continue their collaboration with us (e.g., Holtom, Mitchell, Lee, & Bussman, 2008). However, leaving the team highlights the problem inherent in team transitions. When a new student joins our team they are familiarized with our theoretical inclinations (they receive a huge stack of articles to read), information about past research activities and data sites, and current projects along with our various data bases. This training and transmission of knowledge is carried out by more senior students with the help of the two of us. Thus, we are sensitive to issues involving the teams 'memory' and mentoring of junior students by senior ones.

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

KEY LEARNINGS AND CONCLUSION

Managing and participating in a research team including students and faculty members involves sensitivity to a multitude of factors related to team processes and, of course, team performance. We summarize our learning into five key factors. First, the interpersonal dynamic must be smooth and pleasant. While our teams are often diverse in terms of gender or cultural composition, we actively attempt to make sure that everyone is comfortable with one another. Second, expectations and responsibilities must be clear and explicit. 'Who does what and why' is always part of our agenda. Third, we try to be sensitive to roles and transitions in these roles as students grow and change. Fourth, we are sensitive to ethical issues and use them as teachable moments. In many cases we discuss events or activities that happen to other people not in the team, but only if the topic itself is important for professional growth. Finally, we make sure that people are recognized and rewarded for their efforts. We make sure opportunities are available for everyone (contingent on their portfolio of projects), that responsibilities grow with expertise, and that accomplishments are celebrated. We engage 'virtual hugs', and once in awhile, we actually have a real group hug. When managed well, working in team research is really fun.

NOTES

[1] This practice may vary from team to team. The first author in our field usually signals the intellectual leaders and major contributor to a project. In some situations, the first draft may be written by the second author, e.g., because of language issues in international collaboration teams. In our team, the first author always writes the first draft. Subsequent drafts can correct language issues. For example, we have a native Chinese speaker. He wrote the first draft, which was quite good, and the team fixed the language issues thereafter.

[2] Both authors have won several awards from our business school and from several academic associations, e.g., Academy of Management.

REFERENCES

Aguinis, H., & Vaschetto, S. F. 2011. Editorial responsibility: Managing the publishing process to do good and do well. ***Management and Organization Review,*** 7(3): 407–422.

Bluhm, D., Harman, W. S., Lee, T. W., & Mitchell, T. R. 2011. Qualitative research in organizations: A decade of progress. ***Journal of Management Studies*** (forthcoming).

Chen, X. P. 2011. Author ethical dilemmas in the research publication process. ***Management and Organization Review,*** 7(3): 423–432.

Felps, W., Mitchell, T. R., Heckman, D., Lee, T. W., Holtom, B. C., & Harman, W. S. 2009. Turnover contagion: How coworkers' job embeddedness and coworkers' job search behaviors influence quitting. ***Academy of Management Journal,*** 52(3): 545–561.

Holtom, B. H., Mitchell, T. R., Lee, T. W., & Bussman, M. 2008. Turnover & retention research: A glance at the past, a closer review of the present, and a venture into the future. ***Academy of Management Annals,*** 2: 231–274.

Kirkman, B. L., & Chen, G. 2011. Maximizing your data or data slicing? Recommendations for managing multiples submission from the same dataset. ***Management and Organization Review,*** 7(3): 433–446.

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press

Lee, T. W., & Mitchell, T. R. 1994. An alternative approach: The unfolding model of voluntary employee turnover. ***Academy of Management Review,*** 19(1): 51–89.

Lee, T. W., Mitchell, T. R., & Harman, W. S. 2011. Qualitative research strategies in industrial and organizational psychology. In S. Zedeck (Ed.), ***APA handbook on industrial and organizational psychology:*** 73–83. Washington, DC: American Psychological Association.

Mitchell, T. R., & Lee, T. W. 2001. The unfolding model of voluntary turnover and job embeddedness: Foundations for a comprehensive theory of attachment. In B. Staw & R. Sutton (Eds.), ***Research in organizational behavior*** (vol. 23): 189–246. London: JAI Press/Elsevier Science Limited.

Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. 2001. Why people stay: Using job embeddedness to predict voluntary turnover. ***Academy of Management Journal,*** 44(6): 1102–1121.

Rupp, D. 2011. Ethical issues faced by editors and reviewers. ***Management and Organization Review,*** 7(3): 481–493.

Thomas W. Lee (orcas@uw.edu) is the Hughes M. Blake Professor of Management and Associate Dean for Academic and Faculty Affairs at the Foster School of Business, University of Washington. He received his Ph.D. from the University of Oregon. Over the years, Tom published over 75 academic articles and authored one book. He has won numerous research awards and served as Editor of the *Academy of Management Journal* and as President of the Academy of Management. Tom is a Fellow of the Academy of Management and the Society for Industrial and Organizational Psychology.

Terence R. Mitchell (trm@uw.edu) received his undergraduate degree from Duke in 1964, and a Master's and Ph.D. from the University of Illinois in organizational psychology. He has been at the University of Washington since 1969 and in 1987 he was appointed the Carlson Professor of Management. He has published journal articles and book chapters on the topics of motivation, leadership, turnover, and decision making.

Manuscript received: October 25, 2010
Final version accepted: April 11, 2011
Accepted by: Maureen L. Ambrose and Marshall Schminke

https://doi.org/10.1111/j.1740-8784.2011.00224.x Published online by Cambridge University Press