Project management and leadership: practical tips for medical school leaders

Diane Gorsky[1], Karen Mann[2], Joan Sargeant[3]

Corresponding author: Ms Diane Gorsky diane.gorsky@dal.ca
Institution: 1. Dalhousie University, 2. Dalhousie University, 3. Dalhousie University
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Abstract

Background: Academic project work is a common practice in medical education to address complex cross-disciplinary problems. A progressive career in academic medicine will include opportunities to lead such projects, mobilizing temporary groups of individuals to achieve project goals. There is little guidance, however, on how academic projects should be structured and supported.

Aim: We provide a guide to deepen understanding of the tools and approaches available for leading academic projects.

Methods: Our framework, adapted from Edmondson (2012b) organizes guidance under the categories of project management activities and project leadership principles. We used this framework to develop practical tips based on current literature and our experience.

Results: We identified practical tips and guidelines for leading and managing academic projects. We also offer a sample project management template designed for the medical school setting.

Conclusion: Concepts from organizational leadership and project management literature can be applied to the medical education setting to improve the likelihood of successful academic projects.

Keywords: project management, collaboration, temporary teams, medical school leadership, project charters

Introduction

In medical education, academic project work is a common practice to address complex cross-disciplinary problems, advance change and lead innovation. Such projects allow the institution to be nimble yet comprehensive in its response to emerging issues.
Academic project work involves "a short-term effort convened with tacit acknowledgment that it will have an end point and will not likely be a permanent construct or entity. It is usually organized around a specific problem, issue, or content area . . . and it is not likely to have a dedicated space or permanent staff" (Bohen & Stiles 1998). Examples are numerous, ranging from large organizational initiatives to small programmatic changes. For instance, at Dalhousie Medical School, recent projects include interprofessional education planning, course design, new policy development and curriculum renewal (Reid et al. 2012).

A progressive career in academic medicine will include opportunities to lead academic projects (Sectish & Spector 2014; Whitechurch 2012; Hu et al. 2105). Successful leadership of such complex undertakings is personally challenging and requires a range of skills to mobilize temporary groups and expertise from across the institution (Sectish & Spector 2014; Grigsby 2009). There is little guidance, however, on how academic projects should be structured and led in a medical school setting.

The leadership role can be daunting as research suggests that project work frequently fails (Edmondson 2012a; Kotter 2007). It is certainly not uncommon in academic medicine to participate in a project only to see the effort lose focus or have an unsuccessful conclusion. While other factors may influence the outcome, when a project fails or is only partially realized, lack of appropriate leadership is often involved (Bland et al. 2000).

Concepts from organizational leadership and project management literature can be applied to the medical education setting to improve the likelihood of successful academic project work. While management practices are often viewed as incongruent with the academic culture (Winter 2009), we propose that selected approaches can be carefully adapted to the medical education setting, and provide support for creative thinking and innovation.

In this light, we used a framework adapted from Edmondson to organize our 12 tips under the categories of project management activities and project leadership principles (Edmondson 2012b). Project management refers to a range of organizational tasks, such as identifying project scope, assembling the membership, dividing the tasks among participants and securing necessary resources. Project leadership refers to positive group functioning and emphasizes psychological safety, team communication, problem-solving and conflict management. The two categories must be embraced concurrently, as there is a dynamic relationship between them during the life of the project.

**Project management activities**

In the first section of tips, we focus on project management activities. Leaders need to provide structure and manage the coordinating aspects of effective project work. Project management activities include the organizational tasks involved in bringing together a diverse group of individuals and creating scaffolding to facilitate effective group functioning. Project management helps project members to focus, coordinate and communicate.

**Tip 1**

**Ensure that the mandate to lead comes clearly from the project sponsor**

When initiating a large or small scale project for your institution, begin with a face-to-face meeting with the project sponsor. The project sponsor is a senior level leader who champions and authorizes the existence of the project (Treasury Board of Canada 2008) and clarifies what is to be accomplished. The sponsor also provides important linkages to faculty governance and key decision making bodies of the medical school or academic health centre. In academic medicine, the project sponsor may often be the Dean, Associate Dean, Head or other senior educational director. Research reveals that "having a strong, influential advocate at the forefront" is associated with successful
organizational change (Bland et al. 2000).

Through discussion with the project sponsor, background information and the mandate to lead are identified. The project sponsor should be someone with authority and interest in the project. This provides credibility for the project and direction for the team. The commitment of an engaged project sponsor is correlated with project success (PMI 2013; Kloppenborg & Tesch 2015) and provides important supports to navigate the project through to final approval.

Throughout the life of a project, timely updates with the sponsor also provide opportunities to seek assistance in removing roadblocks if the project work is veering off track. It is also helpful to occasionally invite the sponsor to attend a project meeting. This can be motivating for the project team and ensure the sponsor appreciates the various challenges involved in the initiative.

**Tip 2**

**Assemble the team membership**

Temporary project groups or "teams on the fly" (Edmondson 2012b) consist of individuals who do not normally work together and are assembled based on how their characteristics align with the scope of the project. In the context of increasingly complex projects which may involve interprofessional and interdisciplinary collaboration, the selection of the team members requires considerable thought.

Temporary project groups differ from permanent, stable teams embedded in typical organizational structures (Edmondson 2012b). The membership needs to represent the desired attributes of participants, including content expertise, skills, networks, availability and experience (Sectish & Spector 2014). To ensure in the necessary diversity, leaders may need to reach out beyond their usual network of colleagues.

Projects also offer important learning and growth opportunities. You may wish to include junior, less experienced faculty and staff. Such individuals tend to be open to change and new approaches (Argote 2012; Souba 2003). Academic projects are also an opportunity to link individuals who have not worked together before. Combining the expertise in this fashion can lead to innovation and significant new contributions that might not otherwise come forward.

While it is not always possible to include all potential stakeholders, it is important to ensure that different perspectives are represented. For example, educational projects often have goals related to improving the student experience. In such cases, it’s very helpful to have students on the group, as the lens they bring to the project will be important in ensuring its success. Similarly, it is important for the project’s credibility and the success of its implementation that the group composition not exclude important constituents or perspectives.

**Tip 3**

**Create project management framework and documentation**

An essential leadership role in collaborative academic work is engaging group members in a common vision and building a shared sense of ownership (Lieff & Albert 2012). To support this activity, we recommend the use of a written project statement, such as a project charter. A project charter outlines a shared understanding of objectives, purpose, scope, work plan, roles, tasks, participants, timelines and resources (PMI 2008).

A project charter, the project management approach used at Dalhousie University, is typically a template (see Table
1) with structured headings. The benefits include improved process (communication, effort, mutual support, cohesion) and performance (Aaron et al. 2014; Mathieu & Rapp 2009). Project documentation serves to coordinate diverse efforts and motivate people towards common goals (Wilkes et al. 2005). At Dalhousie, project charters have been utilized to guide various projects (e.g., the development of interprofessional education in the MD program, an action plan to promote collegiality and a strategic planning initiative in the postgraduate program.)

Table 1: Project charter designed for medical school setting

<table>
<thead>
<tr>
<th>PROJECT CHARTER TEMPLATE FOR THE MEDICAL SCHOOL SETTING</th>
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<tbody>
<tr>
<td>PROJECT TITLE:</td>
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<td>START DATE:</td>
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<tr>
<td>DUE DATE:</td>
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<tr>
<td>PROJECT SPONSOR:</td>
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<td>PROJECT LEADER:</td>
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<tr>
<td>PROJECT TEAM MEMBERS:</td>
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<tr>
<td>BACKGROUND</td>
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<tr>
<td>PROJECT OBJECTIVES</td>
</tr>
<tr>
<td>PROJECT SCOPE</td>
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<tr>
<td>BUDGET &amp; RESOURCES REQUIRED FOR PROJECT WORK (with rationale)</td>
</tr>
<tr>
<td>POTENTIAL RISKS (and how risks will be mitigated)</td>
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<tr>
<td>MILESTONES</td>
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<td>Tasks</td>
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A project charter is not a rigid tool and can be adapted to the needs of the initiative. As a living document, it should be revisited in response to new conditions and information (see tip 10). While the project charter serves as a central point of reference during the life of the project, it can be updated and adjusted in a flexible manner. By setting out tasks with specific timelines it serves as both a record of work and an ongoing agenda for action.

Tip 4

Secure the needed resources and administrative supports for the project

Traditional university administrative structures are not oriented toward supporting collaborative academic projects (Bohen & Stiles 1998) and working across departmental boundaries; hence, securing resources may be more challenging than for a unit-specific project.

We recommend working with the project sponsor at the outset to ensure necessary resources are in place. Depending on the magnitude of the initiative, it may be necessary to secure information technology resources, library support,
videoconferencing, budget and administrative assistance.

Time to engage in these projects is required by the group members. The project sponsor can play an important supporting role by providing institutional recognition and reward for participation in academic project work.

**Tip 5**

**Manage and coordinate the project details**

Project work requires an energetic leader dedicated to running meetings, monitoring progress, engaging members, celebrating milestones and providing feedback (Sectish & Spector 2014). While this "nuts and bolts" management and coordination role may be unfamiliar to some academic faculty, it is critically important.

Considering busy schedules and competing priorities, leaders must take steps to ensure efficient and effective meetings. A simple but essential step is to establish an agreed upon meeting schedule. For larger initiatives, administrative assistance may be required to coordinate meeting agendas and secure room bookings. Electronic scheduling software is a key enabler to coordinate members from across the institution.

Document management is another necessity to allow group members to work together on written reports and access current versions of documents. A system of shared electronic files can be easily established through web-based document management software (as such BaseCamp™) or other institutional file sharing systems.

The leadership role includes the practice of "checking in" with the group regularly regarding perceptions of progress and group functioning. The reminder to hold these discussions with group members can be incorporated in the project charter.

**Tip 6**

**Ensure that the project has a clear conclusion and plan for transition**

A project may be successfully completed and positively received, only to find that the report sits on the shelf without a plan for next steps. Therefore, it is important to think in terms of a transition plan and "right connections" (Bland 2000) to ensure the project outputs have the desired impact.

The project charter should articulate the project end point which is often a final report and recommendations. In the medical school context, an academic project generally concludes with a presentation to the project sponsor and other governance bodies (e.g., curriculum committee, faculty council or senate). This may involve transitioning the project to another group within the institution to implement the project work in the form of new policies, practices or programming.

While project work can often seem abstract and intangible, a completed project is an opportunity for recognition and celebration. In partnership with the sponsor, we would encourage leaders to hold an appreciation event and reflect on the important work accomplished. This helps mark the official conclusion of the project, and allows the initiative to unfold under the authority of those tasked with next steps.

**Project leadership principles**
The following tips focus on project leadership principles as distinct from project management. The project leadership role requires a range of skills to promote positive group functioning and dynamics. Emotional intelligence is required to continuously support, build a shared purpose, problem-solve and motivate. This will involve a collaborative leadership style that adapts to group needs and is neither too tight nor too loose (Wilkes et al. 2005; Edmondson 2012b).

**Tip 7**

**Establish psychological safety**

Psychological safety refers to a climate where opinions are valued and “people feel free to express relevant thoughts and feelings” (Edmondson 1999). It facilitates open dialogue, communication and questioning with positive impacts on quality, performance, work engagement, learning and creativity (Edmondson 2012a; Edmondson and Lei 2014; Sting et al. 2015). Psychological safety is especially important when team members come from diverse disciplines or units and are unaccustomed to working together.

The project leader has an important role in establishing a climate of fairness, consistency and safety. This involves being approachable and willing to show fallibility. While holding group members accountable for their work is critical, "psychological safety means no one will be punished or humiliated for errors or questions" (Edmondson 2012a) in the process of achieving project goals. In medical education, current discussions are addressing the importance of safety in the learning environment (Hunt et al. 2014), so team members will have some understanding of this concept.

Group discussion at the project’s outset will help to establish ground rules and conditions for psychological safety. This supports group members’ feeling of ownership for the project, and allows for expectations and preferences to be discussed, which will form an important foundation for project functioning. The leader must be prepared to reinforce these norms and expectations as the initiative unfolds. We recommend that this step be included in the project charter to highlight its importance.

**Tip 8**

**Recognize and value individual contributions**

In successful project work, not all tasks are team-based; there will be individual roles as well as group effort involved (Edmondson 2012b). Taking time to recognize individual efforts and convey appreciation helps maintain motivation levels and engagement.

With busy academic and clinical schedules, it is often not possible for all members to contribute in identical ways. Assigning individual responsibility for tasks can foster a sense of contribution to and accountability for the project’s success. Individual allocations of responsibility can be incorporated into the project charter and recorded as these tasks come to completion. It’s important, however, that individual contributions are shared with the entire group for transparency and consensus building.

**Tip 9**

**Watch for "scope creep"**

"Scope creep" (uncontrolled growth or continuous change) is particularly problematic and one of the most frequent causes of project failure (Larson 2009). While incorporating new ideas and information during the life of a project
is appropriate, it is important to continually emphasize the fundamental purpose of the project to quickly resolve disagreements and stay focused (Edmondson 2012b).

When working with innovative and enthusiastic individuals, creative suggestions may come forward to expand the project well beyond its original intent. For example, a project participant may have a related initiative underway and wish to combine forces, which sometimes can lead to unnecessary complexity and delays. In other instances, numerous small changes and suggestions can fundamentally alter the objective of the project so that the original goals are not met. Here again, the project charter can be a helpful guide. It is often necessary to put some good ideas aside, to ensure the original project is brought to completion with the available time and resources.

**Tip 10**

**Adjust and respond to unexpected events**

The academic medicine environment is complex with unique complications and uncertainties. Unanticipated changes in senior leadership, accreditation standards and policy are common examples of factors that may emerge during the life of a project. Unexpected events are a reality in multifaceted projects and project leaders must demonstrate flexibility to help navigate these issues and "maintain forward momentum" (Laufer et al. 2015).

When coping with unexpected circumstances, rigid project management approaches may not work, nor does forcing the initiative into predictable phases such as initiation, planning, execution, completion (Edmondson 2012b). The project leader must keep tabs on significant changes that may impact the goals of the project, and engage the participants in adjusting to these elements. A recent project in our institution involved development of an Assessment Unit, to both support faculty and develop and implement important changes and improved practices. Near the end of the project, one of the project goals had to be met urgently, and outside of the project team's work. Considerable discussion and reorientation was needed to refocus the group on our remaining goals, and assess their viability.

From time to time, it may become apparent that a team member is not actively contributing or may need to drop out of the project altogether. Through discussion it may be possible to re-engage the individual, but it may be necessary to recruit a replacement to ensure the project work stays on track.

**Tip 11**

**Recognize and address conflict**

As with any complex project or group, conflict and tensions can arise. Relational problems in academic medicine may include competitive individualism and disrespect (Paoli 2009). Conflict in group work can also occur when the initiative involves members with differing backgrounds, priorities and realms of expertise (Edmondson, 2012b). This latter point was illustrated in a recent interprofessional project, involving faculty members from five different health professions, lay members and patient advocates. The project progressed well; however, it became obvious that group members were unclear about the roles and expertise of others in the group, and were unhappy about how decisions were being taken. A facilitated discussion of the team revealed these underlying concerns and allowed the group together to devise ways of moving forward that were acceptable to all. Interprofessional projects may be particularly susceptible to conflict as worldviews, historical relationships, values and even language may be different across the groups (Kim et al. 2010).

Effective work teams require coordination, communication, cohesion and conflict management (Mickan & Rodger
2000). While conflict can contribute to creative outcomes and innovation, if unmanaged it can derail a project and significantly demotivate (Edmondson 2012a).

The project leader can mitigate this possibility of conflict by addressing it at the outset of the project, and encouraging open conversation about ways in which tensions might be constructively handled. Conflict can arise at any point and may surface at various stages as the work unfolds. We encourage project leaders to draw on the available conflict resolution literature and develop conflict management skills through faculty development opportunities.

**Tip 12**

**Maintain balance**

While project leadership can be rewarding, there is no doubt that this role is often stressful and daunting. Maintaining a sense of balance while attending to other academic commitments can be particularly challenging. Project leaders will encounter the tension between traditional academic collaboration and the reality of an academic management role. There may be resistance associated with the introduction of administrative formality and structure.

When grappling with the challenges that inevitably arise, seek out support from the project sponsor and other mentors and maintain personal resilience (Sectish & Spector 2014; Brooks et al. 2015). "Resilience, the capacity to bounce back from adversity, is a critical leadership skill” when working in this type of setting (Souba 2003).

Knowing that your project is highly valued by leadership and the organization can strengthen commitment and enthusiasm. In addition, promoting a sense of fun while engaging in challenging work can increase motivation and collegiality.

**Conclusion**

A medical education career will include a variety of roles related to committee work, planning and implementation within the institutional setting (Harden 2000). Team-based project work is increasingly common in the medical school setting, but there has been little guidance available for leaders to navigate the complexities and challenges.

While recognizing that structured project work may be regarded as incongruent with the academic process, we suggest that concepts from organizational and management literature can be applied carefully to the medical education setting. Rigid management approaches would be counter-productive and stifle creativity. When planned appropriately, however, academic project work can bring a variety of benefits including "a return to the original motivation that many individuals had for becoming scholars, that of actually enjoying and thriving in circles of inspired debate and learning” (Bohen & Stiles 1998).

**Take Home Messages**

- A progressive career in academic medicine will include opportunities to lead projects, mobilizing temporary groups of individuals to achieve project goals. Examples are numerous, ranging from large organizational
initiatives to small programmatic changes (e.g., interprofessional education planning, course design, new policy development and curriculum renewal.)

- As there is little guidance on how such projects should be structured and supported, we offer a series of practical tips to deepen understanding of tools and approaches.
- Leadership of complex project undertakings requires project management and project leadership skills.
- We introduce concepts from organizational leadership and project management literature to improve the likelihood of successful project work. A sample project charter template, aligned with the needs of a typical project in the medical school setting, is also provided.

Notes On Contributors

DIANE GORSKY, MSW, MBA, is Associate Dean, Operations and Policy, Dalhousie Medical School. Her research interests focus on the changing landscape of leadership and administration in academic medicine. She is also a lecturer in Dalhousie’s Emerging Leaders in Academic Medicine (ELAM) program.

KAREN MANN, PhD, is Professor Emeritus in the Division of Medical Education at Dalhousie Medical School. She is involved in educational research, faculty development, and educational development and evaluation across the continuum of undergraduate, postgraduate, and continuing medical education.

JOAN SARGEANT, PhD, is Professor and Head of the Division of Medical Education, Dalhousie Medical School. Her research interests include many aspects of medical education: curriculum design, implementation, assessment/evaluation, teaching, research and administration across the continuum of medical and health professional education.

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Appendices

Declaration of Interest

The author has declared that there are no conflicts of interest.