Student Success on Student-learning Teams at Royal Roads University

by

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COMMITTEE APPROVAL

The members of Michael Pardy’s Thesis Committee certify that they have read the thesis titled Student Success on Student-learning Teams at Royal Roads University and recommend that it be accepted as fulfilling the thesis requirements for the Degree of Masters of Arts in Leadership.

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Abstract

This action research engagement (ARE) study asked, “how can the CCC better understand how stakeholders define ‘success’ in student teams and subsequently improve its ability to provide support to these learning teams”? Ten Bachelor’s of Professional Communications students were surveyed electronically, and nine administrators, professionals, and faculty participated in two focus groups. The findings suggested that stakeholders define and explain in terms of outcomes (task completion), social processes (respecting, celebrating, communicating), and knowledge processes (learning, reflecting). Furthermore, findings suggested that, among other variables, cultural diversity of student teams and the learning modality (face to face, blended) impacted student team success. Study recommendations include enhancing cross-cultural competencies, developing a learning progression for teamwork, assessing teamwork on outcomes, social processes, and knowledge processes, and designing unique teamwork environments for face-to-face and blended learning.

Key words: teamwork, team learning, team social processes, team knowledge processes, cooperative learning
Chapter One: Focus and Framing

In 2013, in aid of strengthening student learning, Royal Roads University (RRU) executives decided to establish a centralized centre to “coach students to success” in the classroom (R. Mason, personal communication, May 20, 2014). The centre was named the Counselling and Coaching Centre (CCC). It integrated a range of existing personal and academic services, and new supports for student-learning teams (Appendix A). RRU employs a unique learning and teaching model (LTM) that provides “leading-edge applied and professional programs…, shaping tomorrow’s leaders….[through] a learning context that facilitates personal and professional transformation[,] allowing them to succeed in a global workplace” (Royal Roads, 2013a, p. 7). Team-based learning is a core component of the LTM (Royal Roads, 2013a), and one that RRU administrators believe differentiates their programs from others (R. Mason, personal communication, May 20, 2014). As a response to this growing popularity, RRU is committed to continuing to differentiate its programs by strengthening its learning and teaching through centralizing and standardizing supports and services for team-based learning in the CCC. This inquiry focused on the proposed theoretical and practical supports for team-based learning through the CCC. As part of the action research engagement process, findings will be brought back to the stakeholders to allow them to determine next steps in better supporting these students in team learning.

The purpose of this study was to contextualize, understand, and interpret (Glesne, 2011) the meanings that team-based learning stakeholders in the Bachelors of Arts in Professional Communication (BAPC) made of their experiences, and the nature of the experiences that shaped successful student teams. In this context, stakeholders included students, program faculty,

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1 All personal communications in this report are used with permission.
program administrators, and university staff who supported students and teams through
counselling, accessibility, writing, and technical services. Through this exploration, I identified
some meaning in the experience of BAPC student teams and stakeholders that could inspire
others to foster successful student teams in future BAPC cohorts. More widely, I explicitly
sought to foster success in student teams across RRU by sharing this learning with the CCC in
the expectation that insights could be adapted and applied in other programs.

At RRU, a team is a group of three to ten students through which learning is expected to
happen. The philosophical underpinning for using teams is laid out in the university’s learning
and teaching model (2013a): “According to [Michaeleson, Knight, & Fink (2002)], most authors
agree that the key purpose of team learning is to enhance students’ opportunities to engage in
active and enhanced learning” (p. 24) and “that by interacting with one another, team members
share knowledge and skills which lead to increased efficiency and effectiveness of the collective
learning process” (p. 24). Unlike teams in the workplace or in sport, teams at RRU are student-
based, with no formal leadership structure or expertise. Student teams are expected to learn
academic content and complete associated tasks together, often without direct supervision.
“Team-based learning takes many forms at RRU from engagement in formalized authentic
activities like case competitions, leadership challenges, and action research inquiry labs, to less
formal, smaller-scale activities like online discussions and collaborative papers.” (Royal Roads
University, 2013a, p. 24)

I have a long-term professional interest in developing teams and teamwork, which
converged with my interest in teamwork at RRU. Over the last 30 years, I have worked almost
exclusively in teams and with teams to deliver experiential education training seminars and
workshops. At RRU, I assumed the role of faculty, team coach, and student. This combination
of roles provided a unique perspective on teams and teamwork at the university. As a faculty member, I required students to complete team assignments, and I assessed the success of those assignments; as a team coach in the Faculty of Management (FoM), I supported students and faculty in developing team skills and addressing teamwork challenges in aid of fostering team success; and as a student, I was asked to participate in teams to learn and complete assignments. Upon hearing of the proposed CCC in November 2013, I approached the Associate Vice President Academic and Student Services for an informational interview. At the interview, I specifically asked about the possibility of supporting the teamwork components of the rollout of the CCC through an action research engagement project for my Masters of Leadership degree at RRU. The Associate Vice President recognized my background in teamwork, supported my request, and connected me with the Director of Student Services, the staff member responsible for implementing and managing the CCC.

In aid of better supporting student success in their student teams, both leaders provided me with access and support. The Associate Vice President, the director of Student Services, the manager of the CCC, and the program head, faculty, and staff of BAPC met with me throughout my research. These stakeholders also continued to meet with me after completing my research to define and develop courses of action based on my findings and recommendations. In addition, administrators and faculty from FoM met informally with me throughout my research and afterward. In these meetings I shared my findings, conclusions, recommendations, and thoughts on further research. From this dialogue, these faculty and administrators can reinterpret and reimagine my findings and recommendations for their programs.

I conducted this inquiry based on the following question: how can the CCC better understand how stakeholders define ‘success’ in student teams and subsequently improve its
ability to provide support to these learning teams? In support of this question, I asked the following sub question: what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU? The initial inquiry took place within BAPC, and the lessons learned from the inquiry could be reinterpreted across the university. During my research, I met regularly with the manager of the CCC and the program head and administrator of BAPC to share my progress, reflections, and insights. Upon completing my research, I met with the Associate Vice President and the director of Student Services to present my tentative findings (R. Mason, personal communication, June 3, 2015; K. Mcleod, personal communication, June 3, 2015). I also presented my findings to the manager of the CCC (S. Chettleburgh, personal communication, June 10, 2015), the head and staff of BAPC, and the director of the School of Communication (SCC) (J. Orr, personal communication, July 9, 2015; J. Walinga, personal communication, July 9, 2015). The SCC asked me to present my findings and recommendations to faculty in the SCC over the fall of 2015. In addition, the Faculty Development Liaison at CTET and the manager of CCC have agreed to designate the 2015-2016 academic year, the Year of Teams (S. Chettleburgh, personal communication, July 30, 2015; B. Ebb, personal communication, July 30, 2015). As part of their efforts, I will present aspects of my findings and recommendations in at least three different university venues over the fall of 2015. The manager of the CCC and the Faculty Development Liaison will promote these presentations to the entire university community.

**Significance of the Inquiry**

At RRU, teamwork is both a learning outcome and a practice. The university argues that teamwork is a critical skill for success at the university and in the workplace and has integrated teamwork into most of its courses and all its programs (Royal Roads University, 2013a, p. 16).
Up to 30% of a BAPC student’s grade could be attributed to team assignments (L. Pettitt, personal communication, October 9, 2014); across the campus, some programs assigned up to 50% of a student’s grade to teamwork (Royal Roads University, 2013a). The surface argument in favour of teamwork is that it prepares students for careers at a time when work is being increasingly reorganized into group work (Delarue, Van Hootegem, Procter, & Burridge, 2008). The deeper argument is that teamwork models and reinforces the impact of social relationships in learning, which is a key pillar of the university’s learning and teaching model. However, identifying the importance of teamwork to learning and future success is not sufficient to ensure the professional and andragogical impact of working in a team. Teams must also learn to be successful, and this requires ongoing development and practice, which RRU supports through the CCC. Andragogy is a term introduced by Malcolm Knowles (1984), and refers to the independent authority each adult member has in voluntarily participating in collective learning and teaching. According to Leon McKenzie (1977) and George D. Yonge (1985), the freedom adults have in choosing to be educated through relationships is one distinguishing feature of andragogy, and it is pertinent to RRU’s ambitions for fostering learning and teaching that seeks to transform individuals and society through a socially constructed educational environment (Royal Roads University, 2013a).

Better support for student success on student teams is an important issue for BAPC and RRU for at least three reasons. First, students consistently identified teamwork as the best and the worst of their experience at RRU (M. Cornish, personal communication, May 20, 2014; L. Pettitt, personal communication, October 7, 2014). Improving student success could reduce the frequency and intensity of team-related problems, thus reducing team-related stress and uncertainty experienced by students, faculty, and administrators (Cropanzano, Li, & Benson,
Second, enhancing the success of student teams could allow RRU to continue differentiating its learning and teaching environment from other post-secondary institutions. This would allow RRU to continue expanding its programming and attract new students. Finally, RRU was founded in 1995 on a unique learning and teaching model, one component of which is teamwork (Royal Roads University, 2013a, p. 24). Over the intervening years, other universities have emulated many aspects of the university’s learning and teaching model, including teamwork. In order to continue distinguishing itself in the area of learning through teams, the university learning and teaching community must continue to coach student teams to success and again confidently claim exemplary and unique learning through teamwork.

Organizational Context

The mission of Royal Roads is to “immerse students in a learning context” that aims to facilitate professional transformation so that they can succeed in a global workplace (Royal Roads University, 2013a, p. 7; Royal Roads University, 2013b). The RRU learning and teaching model also states that “the applied, professional focus of the programs at RRU underscores the importance of teaching effective team skills that have a direct application in the work place” (Royal Roads University, 2013a, p. 24). RRU has a program and delivery model based on applied and professional education, blended learning, flexible admissions, and small, synchronized learning cohorts (Royal Roads, 2014). Most RRU programs combine online and face-to-face learning in a blended delivery model. Flexible admissions allow program staff to value previous education and work and professional experience. Small, synchronized cohorts offer few course choices but allow students to graduate on an accelerated schedule. The model allows students to work, live, and study concurrently, but it also places important limits on student choice, which could amplify challenges and limit solutions for team-based learning.
Student teams receive differing levels of support across RRU’s two faculties. In addition to the support from the CCC, FoM supports its student-learning teams by hiring team coaches to provide team training to incoming students and ongoing coaching to student-learning teams in all its programs. In 2014, FoM contracted three team coaches to support 490 students in five programs. In contrast, the Faculty of Social and Applied Sciences (FSAS) supported approximately 1610 students in 26 Masters and undergraduate degree programs with less consistency for the support of student teams (M. Cornish, personal communication, November 21, 2014; K. McLeod, personal communication, June 16, 2014). Some FSAS programs embrace the social constructionist (Berger & Luckmann, 1967; Gergen, 2009; Gergen & Gergen, 2008) and experiential pillars of the university’s learning and teaching model by integrating team supports directly into the design and delivery of their courses (e.g., MA in Leadership, MA in Human Security and Peace Building, MA in Educational Leadership and Management). Nevertheless, there was a perceived imbalance in the allocation of team resources between the two faculties. This inequity in the allocation of resources was a source of organizational friction (S. Chettleburgh, personal communication, December 15, 2014; M. Heinz, personal communication, July 23, 2014; R. Mason, personal communication, May 20, 2014; K. McLeod, personal communication, June 16, 2014). It was partly in aid of addressing this inequity that the university executive initiated the implementation of the CCC, which sought to support all students in their teamwork, regardless of their program.

My research project focused on the BAPC program, which is based in the FSAS. BAPC students joined either a one year face-to-face program supported by an on-line learning management system (LMS), or a two year distance program supported by two 2-week on campus residencies and the LMS. This was referred to as the blended option. BAPC student teams had
initial support for team-based learning at the program level, and several faculty provided additional training and assessment (L. Pettitt, personal communication, October 9, 2014; J. Orr, personal communication, October 9, 2014). In these ways, BAPC reflected the wider learning and teaching context at RRU (i.e., blended learning, flexible admissions, and professional experience).

Conversely, the culture, gender, and age demographics of the BAPC cohort did not reflect the demographics of all programs at RRU. For example, 78% of students enrolled in the BAPC program in 2014 were females. This was not the case for many cohorts at RRU. Furthermore, an increasing number of international students are also choosing to study at RRU (Chao, & Pardy, 2014). RRU has several programs specifically designed for international students such as the International Study Centre undergraduate program, and the Masters of Global Management. RRU also has programs designed to integrate domestic and international students, such as the Bachelor of Business Administration, and the Masters of International and Intercultural Communication. Enrolment of international students is increasing as managers work to attract and integrate international students in general enrolment programs. In 2013 there were 134.7 FTE international undergraduates out of a total undergraduate FTE population of 694.9 (19%), up 380% from the year previous (Royal Roads University, 2013c). Research showed that demographic variables can have an impact on team outcomes, but that these impacts varied and dependent on other variables such as training, team diversity, and leadership (Gardenswartz & Rowe, 2003; Jehn, Northcraft, & Neale, 1999, Johnson & Johnson, 2010). This suggests that my insights and recommendations would have to be reinterpreted and reconstructed within the specific contexts of other programs at RRU.
The CCC pulls together services and resources from the Centre for Teaching and Educational Technologies (CTET), the Writing Centre, and Counselling and Accessibility Services related to student success and adds a new, fourth unit that focuses on team coaching (Appendix A). The structure of the coaching centre acknowledges that successful students and teams require an integrated network of supports. An individual student might need counselling or academic accommodation in conjunction with writing support. In turn, members of a student team might require support for team skills as well as individual support. Some elements of the CCC directed at student success in teams are new, especially the proposed delivery of theoretical foundations to teamwork through an online educational resource. The CCC does not replace existing services; rather, it integrates existing services with new services to coach students for success.

There are challenges to supporting students through a central agency, however. First, academic authority is highly distributed at Royal Roads and as a consequence, developing a shared framework for coaching student teams to success across programs is a challenging undertaking. There is no common definition of student team success at RRU (R. Mason, personal communication, May 20, 2014; K. Mcleod, personal communication, June 16, 2014). Outcome-based education was emphasized from the beginning at RRU and outcomes always included teamwork. However, specific criteria varied across programs and included various social and knowledge elements (A. MacGillivray, personal communication, August 28, 2015). Faculty members have a high degree of autonomy in the delivery of their courses, and program staff design and modify their own curricula within boundaries set by the Curriculum Committee of the Academic Council (Royal Roads University, 2009). This diffusion of authority means that program managers cannot simply impose a plan for successful student teams on programs,
faculty members, and students, but must gain their support. Furthermore, students and most faculty members at RRU are transients. The turnover in faculty and students results in regular loss of organizational knowledge. For example, students studying online have limited opportunities for passing on insights and wisdom to incoming cohorts because they are studying part-time and at a distance. The situation is similar for many faculty, who are contracted to teach one or a few courses a year with limited opportunities for networking and participating in training from experienced staff and faculty. For example, in the 2013 BAPC on campus program, core faculty taught two courses vs. the 18 taught by contracted associate faculty. The online BAPC program was similar. Core faculty taught four courses vs. the 16 taught by associate faculty (L. Pettitt, personal communication, October 9, 2014). Team-based learning at RRU should be understood in the context of the university’s unique delivery model, program-dependent supports for teams and team learning, decentralized academic authority, and seasonal reservoirs for knowledge about team-based learning (Royal Roads University, 2013a).

**Systems Analysis of the Inquiry**

Team-based learning occurs within the context of a number of university subsystems. I limited the number of subsystems under investigation based on a few simple boundaries, relationships, and perspectives (Williams & Hummelbrunner, 2011; see Figure 1). Student teams were bounded social units within the context of each program area. The relationships within the team were shaped by a number of individual and group characteristics and by the perspectives of the participants (Bolman & Deal, 2003; Devine, Clayton, Philips, Dunford, & Melner, 1999; Morgan, Gregory, & Roach, 1997; Salas, Sims, & Burke, 2005; Staples & Zhao, 2006). These characteristics and perspectives shaped and directed the learning experience of teams and contributed to their success. BAPC student teams were subsumed within a wider
boundary defined by the BAPC program itself, its home faculty (FSAS), and further bounded by the university. For the purposes of this study, BAPC student teams were at the centre of my inquiry system.

CCC and CTET were the other bounded units within the university. CCC and CTET overlapped with BAPC in the context of team-based learning, and for the purposes of this study were considered an extended support network for BAPC student teams. Together, the overlapping boundaries of BAPC, CCC, and CTET were defined by their shared work in supporting student teams, which included the design and implementation of courses, personal and academic coaching for individual students, and training and coaching for student teams and faculty. In reality, this model has permeable boundaries with links to other researchers, literatures, and workplaces.

Unlike BAPC student teams, CCC and CTET had relationships across all programs at RRU. For the purposes of coaching teams, CCC had a direct relationship with all students on student teams, which crossed most program boundaries, and specifically overlapped with student teams in the BAPC. CTET occupied a peripheral and important role to student teams through the application of specific learning and collaborating software (i.e., Moodle, Collaborate) to blended and face-to-face courses. It was this overlap between the BAPC, CTET, CCC, and the wider campus that justified my dual change objectives of drawing lessons for improving student teams from the BAPC and at the same time suggesting that these lessons could potentially be reinterpreted across the campus.
The integrated network of student teams and extended supports at RRU can be described as a network of structural relationships between organizational units and associated actors (e.g., the Writing Centre, counselling services, technical infrastructure, programs, faculty, administrators, team coaches, students), but this structural analysis downplayed the learning and knowledge embedded in these relationships, and the informal, relational networks between various actors in multiple administrative units. Furthermore, from a systems analysis frame, each of these actors,
and groups of actors brought their own authentic perspective(s) to these relationships. In order to explore these perspectives and consider their influence on my research, I took a stance of soft systems methodology (Checkland, 1999) in the context of action research engagement to develop an unstructured description of the organizational context within which I researched teamwork to “identify key perspectives through which to view the situation” (Williams & Hummelbrunner, 2010, p. 244), and to develop descriptive models for how teamwork should operate from the point of view of each perspective.

From this unstructured and broad picture of the situation within which teamwork occurs, I drew out a number of abstract systems perspectives on teamwork using Checkland’s (1999) model development process. I developed four sub systems perspectives on my research and organizational change project drawn from views expressed by stakeholders (M. Cornish, personal communication, May 20, 2014; V. Forssman, personal communication, February 6, 2015; M. Heinz, personal communication, July 23, 2014; R. Mason, personal communication, May 20, 2014; K. Mcleod, personal communication, June 16, 2014; J. Orr, personal communication, October 9, 2014). These perspectives were summarized in Table 1. The value in developing and articulating multiple systems perspectives was 1) a reminder that my research was conducted within multiple, overlapping sub systems, and 2) that perceptions of successful change varied depending on the focal point of the sub system.
It was on the basis of this soft systems method systems analysis that I determined my groupings of research participants (BAPC students, BAPC faculty and staff, student support services). I acknowledged that my proposed organizational changes must be achieved and understood within the context of these multiple, overlapping sub systems.

The descriptive sub systems were, to some extent, artificial constructs, conceptual groupings to aid in the organization of my research and the support of my change project. In my general systems analysis I also identified a number of real world elements. I loosely grouped these elements based on a smaller version of Cynthia Kurtz and David Snowden’s (2003) Cynefin model. I reduced the size of the Cynefin model by differentiating elements based on

<table>
<thead>
<tr>
<th>Focal point of sub system</th>
<th>Descriptive Systems Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAPC Students</td>
<td>A system by which BAPC students succeed in their cohort teams by enhancing their teamwork skills by studying with the Team Coaches at the CCC within context of the relationship between the program, CCC, and the Royal Roads delivery model.</td>
</tr>
<tr>
<td>BAPC Program</td>
<td>A system by which the BAPC program strengthens the success of its students by improving the delivery and assessment of team work learning outcomes by working with the CCC in the context of the design of the program.</td>
</tr>
<tr>
<td>CCC</td>
<td>A system by with the CCC improves the delivery of its teamwork supports through feedback from students and faculty in the context of the Royal Roads delivery model.</td>
</tr>
<tr>
<td>University</td>
<td>A system by which the University strengthens the LTM by supporting the CCC through the direction of the AVP Academic.</td>
</tr>
</tbody>
</table>
their linearity. In the original model, Kurtz and Snowden identified four domains associated with a situation: simple, complicated, complex, chaotic. I grouped simple and complicated behaviours together as structured elements, and complex and chaotic behaviours as emergent elements. Structured elements were known and knowable to systems actors, and as such were controllable and predictable within the system. Emergent elements were context dependent and did not exhibit apparent patterns within the systems of teamwork at RRU, and as such were identified by system actors and owners as issues of uncertainty/variability associated with the proposed introduction of the CCC (R. Mason, January 2014; R. Mason, personal communication, May 20, 2014; K. Mcleod, personal communication, June 16, 2014; J. Orr, personal communication, October 9, 2014). Systems actors and owners identified these elements in my background research (S. Chettleburgh, personal communication, December 15, 2014; M. Cornish, personal communication, May 20, 2014; M. Heinz, personal communication, July 23, 2014; R. Mason, personal communication, May 20, 2014; K. McLeod, personal communication, June 16, 2014; J. Orr, personal communication, October 9, 2014; L. Pettitt, personal communication, October 7, 2014). I summarized the emergent and structured elements in Table 2. Structured elements of the system can be managed through existing organizational practices, processes, and knowledge. It is the emergent elements that offered the richest terrain for meaningful change, and where I focused my research.
Emergent and Structured Elements Associated with the Implementation of the CCC

<table>
<thead>
<tr>
<th>Structured Elements</th>
<th>Emergent Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing staffing and resource levels for supporting student teams are fixed (faculty, team coach, Student Services)</td>
<td>Nascent teamwork community strengthened/weakened</td>
</tr>
<tr>
<td>Scope and mandate of the CCC</td>
<td>Uncertain impact of establishing CCC on teamwork sub systems (workload, roles and responsibilities, procedures, resources, accountability).</td>
</tr>
<tr>
<td>CCC located within Student Services</td>
<td>Generally positive response by FSAS to CCC (potential gain/change of service).</td>
</tr>
<tr>
<td>Accountability for CCC through Director for Student Services and VP Academic RRU LTM</td>
<td>Generally uncertain response by FoM/FoM Programs to CCC (potential change/loss of service).</td>
</tr>
</tbody>
</table>

Chapter Summary and Organization of the Thesis

In this chapter, I introduced my research project, described the significance of the inquiry, explored the organizational context, and analyzed the organizational system within which my research was conducted. The LTM is a foundational and aspirational document guiding the delivery of content and the definition of student success. Teamwork is one of 12 pillars of the LTM (Royal Roads University, 2013a), a learning outcome, and a process through which students are expected to achieve success. My action research project aimed to contextualize, understand, and interpret the experience of teamwork stakeholders, to describe factors that aided in the success of student teams, and to recommend changes in the CCC and BAPC to better support student teams.
In Chapter 2, I review literature on defining team success, and on supporting student team success. My initial review helped frame my research, guide my data collection, and shape my analysis. I also regularly thought about and returned to the literature as I did my research. As well, I left room for other literature that could allow me to reflect on my work and make sense of my findings. I discuss this literature in Chapter 5.

In Chapter 3, I define the project methodology (action research engagement), and describe an overarching frame of appreciation that I incorporate into my research. In this chapter, I also introduce my project participants and the qualitative research methods (electronic survey, focus group) I use to collect data from them. I describe the specific coding strategies I use to analyze the data (In Vivo codes, descriptive codes, categorical codes, thematic codes), and the process through which I applied these strategies. Finally, I explore the ethical issues and my obligations in the research through the lens of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (December 2010), and the steps I took to ameliorate these issues and address my obligations.

In Chapter 4, I describe my findings and observations from the research. Findings were supported by quotes and descriptive statistics from the response data. I go on to state my conclusions from the data under headings related to my research questions. I discuss these conclusions with reference to my literature review in Chapter 2. I wrap up this chapter with a discussion of the factors and irregularities that surfaced in my research that limit the application of my findings and their generalizability to other settings.

In Chapter 5, I explore new insights from the data in a separate discussion and bring in new literature to help understand and to support these insights. I present my recommendations based on my findings and conclusions, and describe the organizational and leadership implications of
my recommendations through the lens of the organizational context and systems analysis from Chapter 1. Within this framework, I consider appropriate processes for implementing my recommendations and the implications for the organization if they are not implemented. I wrap up this chapter by offering suggestions and recommendations for future inquiry projects, by describing what steps key stakeholders are considering, and by describing what roles I might have within the larger organizational change project after the completion of my research.
Chapter Two: Literature Review

Examining the literature on teamwork helped set the wider conceptual context for my investigation into my main research question, how can the CCC better understand how stakeholders define ‘success’ in student teams and subsequently improve its ability to provide support to these learning teams? In support of this question, I asked the following sub question: what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU? To answer these questions, I undertook a review of some of the supporting literature, which centred around two topics: characterizing successful student teams and supporting student team success. In the Discussion section in Chapter 5, I look at new literature based on themes and concepts that surfaced from my findings.

Characterizing Successful Teamwork in the Classroom

Researchers and practitioners of teamwork contested its meaning in common and technical usage both on campus and in the literature (K. Mcleod, personal communication, June 16, 2014; S. Chettleburgh, personal communication, November 24, 2014; Salas, Cooke, & Rosen, 2008; West & Lyubovnikova, 2012). The literature suggested that this lack of clarity in understanding the character and processes of teamwork resulted in ambiguous teamwork experiences. In part, these challenges were manifestations of an essential problem of teamwork, which is that it is a complex and complicated concept comprised of multiple variables, which are in turn open to various interpretations depending on the context and the understanding of the observer (Schmidt, 2011; Tannenbaum, Mathieu, Salas, & Cohen, 2012). In the literature, teams were commonly characterized in one of three ways: the setting within which they operate; how they are used; and what they do (Johnson & Johnson, 2010, p. 528). These characterizations point to a key distinction in the literature: the attributes of a team and the processes by with they work. In my
review of the literature, I explored both attributes and processes of successful teams. In addition, I considered the proposition that the systems within which teams work also mediate team success.

Devine, Clayton, Philips, Dunford and Melner (1999) demonstrated that teams and groups were widely used in organizations to accomplish a variety of tasks. Teams were perceived to be more flexible (Beersma, Hollenbeck, Humphrey, Moon, Conlon, & Ilgen, 2003), to make better decisions than individuals (Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995), and to increase participation and fairness (Brodbeck, Kerschreiter, Mojzisch, & Shulz-Hardt, 2007). Delarue, Van Hootegem, Procter, and Burridge (2008) went further and argued that teamwork was a significant driver of organizational performance. In the context of education, Michaelsen, Knight, and Fink (2002) argued that team performance was directly related to team learning. Perhaps, then, it is not surprising that educators often have students work in teams both as an outcome in and of itself, and as a strategy for learning. In both cases, we should consider the attributes and processes of teamwork.

**Team attributes.**

The optimism about teamwork expressed in the literature was predicated on a clear and narrow definition of teams and a specific understanding of their associated attributes and processes. The central point was that not all groups are teams, but that all teams were groups. Keyton and Beck (2008) summarized the key attributes of a team as its size, goals, interdependence, structure, and identity. Edmondson, Dillon, and Roloff (2007) added team stability and the nature of the work to key attributes of a team. Keyton and Beck went on to identify leadership, decision-making, and conflict management as three processes essential to team performance. Salas, Sims, and Burke (2005) provided an even more nuanced framework
for understanding team processes by arguing that teamwork was more than achieving a goal (team performance); teamwork was also about how the team achieved its goal (team effectiveness). They conducted a survey of the teamwork literature and concluded that team effectiveness was the product of five variables: team leadership, mutual performance modeling, backup behaviour, adaptability, and team orientation. They went on to state that these variables were successfully integrated only when they were coordinated by shared mental models, closed loop communication, and mutual trust. Salas, et al. (2005) connected the five variables and three coordinating mechanisms to stages of team development and the team task cycle and emphasized the importance of understanding team effectiveness in the context of team learning over time. This is especially important in the context of student teams in the classroom, where learning in teams is a common practice.

**Team processes.**

Edmondson (2012) captured the complex interactions between attributes and processes in the freshly minted verb “teaming,” which Edmondson defined as a process “determined by the mindset and practices of teamwork, not by the design and structure of effective teams” (p. 50). Successful teams were “able to access knowledge, develop a shared understanding of how best to apply it, and act in a coordinated manner that is reflective of new insights” (Edmondson, 2012, p.79). Successful teamwork was the fruitful product of cooperation and collaboration; this result was only achieved if individual, group, purpose, and work concerns were managed and resolved. Not only must individuals learn within the context of teams, but also teams themselves must learn how to “team” (Edmondson, Dillon, & Roloff, 2007). The implication of this framework was that success on a learning team could be measured across at least three distinct, but related, criteria: outcome improvement (performance), task mastery (efficiency), and group process
(satisfaction) (De Dreu & Weingart, 2003; Edmondson et al., 2007; French & Kottke, 2013; Li & Cropanzano, 2009; Mathieu, Maynard, Rapp, & Gilson, 2008; Pineda & Lerner, 2006; Salas et al., 2005; Salas et al., 2008; Zeitun, Abdulqader, & Alshare, 2013). This is important to my study because these criteria provide a reference and framework for understanding how stakeholders at RRU might understand student team success.

The literature also offered a variety of mechanisms and strategies for developing and supporting teamwork skills in the classroom. Cassidy (2007) tested the practicability of the widely used Tuckman model of stages of group development (Tuckman & Jensen, 1977) in the context of teaching and learning in teams in experiential education. This model is used at RRU in the context of its experiential LTM (L. Sherman, personal communication, October 17, 2014; S. Thackery, personal communication, April 10, 2015). Cassidy highlighted that at every stage of group development, Tuckman identified individual, group, purpose, and work concerns, which groups shift toward and emphasize as they develop. The stages and concerns are individual concerns (storming), group concerns (forming), purpose concerns (norming), work concerns (performing), and termination concerns (adjourning) for groups that are separating (p. 415). But, in the context of education, Cassidy concluded that conflict (storming) and goal setting (norming) were concerns that infused every stage of group development, and that Tuckman’s model should best be understood as a process for success rather than as a sequential model of development.

**Groups coordinate, teams cooperate and collaborate.**

The shortcomings of Tuckman model in the context of teamwork in education could perhaps be overcome by turning to the literature on collaboration, which Bedwell, et al. (2012) defined as “an evolving process whereby two or more social entities actively and reciprocally
engage in joint activities aimed at achieving at least one shared goal” (p. 130). Bedwell et al. (2012) stated that teamwork was an instantiation of collaboration within the context of a single level of analysis, the team (p. 135). Salas et al. (2005) offered a similar understanding, identifying cooperation as a mental construct of team members that values overarching team goals rather than individual goals. Cooperation, in this view, was a predisposition (or lack thereof) to work together for common goals, even to the potential detriment of individual self-interest. In an earlier work, Salas, Burke, and Cannon-Bowers (2000) defined coordination as the “process by which team resources, activities, and responses are organized to ensure that tasks are integrated, synchronized and completed within established temporal constrains” (p. 342). The impulse to cooperate must be developed prior to engaging in teamwork; furthermore, once a team is predisposed to cooperate, they must learn to coordinate before they can collaborate.

Cooperation can be understood as the “propensity to consider other’s behaviour when interacting in a group and the belief in the importance of the team’s goals over individual goals” (Bedwell et al., 2012, p. 136). In this understanding, cooperation was a characteristic of an individual team member, and not of the team itself. Coordination was the interaction between team members to allocate, synchronize, and integrate skills and resources to complete tasks on time (Bedwell et al., 2012, p. 135). Collaboration was distinct from coordination in that the team not only reciprocally engaged in joint activities, but also shared a mental model of the tasks, equipment, processes, and context (Akkerman et al., 2007; Jones, Ross, Lynam, Perez, & Leotch, 2011; Staples & Zhao, 2006; Van den Bossche, Gijselaers, Segers, Woltjer, & Kirschner, 2011). Teams were “faced with challenges of establishing common frames of reference, resolving discrepancies in understanding, negotiating issues of individual and collective action, and
coming to joint understanding” (Barron, 2000, pp. 403–404). Collaboration required not only a shared knowledge of the team task (outcome), but also a shared understanding of what the task means and how best to accomplish it (processes).

Johnson and Johnson (1999) differentiated student-learning groups into four categories based on their level of cooperation. The basic premise of their article was that not all groups that work together exhibit the characteristics of cooperation, and that therefore, not all groups of students are teams. The least cooperative of their categories was the pseudo learning team, which falls outside the scope of this research. Students in traditional learning groups, the second of the categories, work together but were graded separately, and as a result Johnson and Johnson (1999) argued that members sought to exploit the skills and knowledge of their group while at the same time withholding information. The outcome was that the “sum of the whole is more than the potential of some of the members, but the more hard working and conscientious students would perform higher if they worked alone” (p. 68). In a cooperative learning group, students articulate shared goals and actively worked to achieve them through group-oriented behaviours such as regular check-ins and dialogue. At this level, groups were often graded on their collective effort. The result of true cooperative learning was that students often performed “higher academically than if they would on their own” (p. 68). The final category, high performance cooperative learning group, exhibited all the characteristics of a cooperative learning group and excelled. As Johnson and Johnson (1999) pointed out, “few groups ever achieve this level of development” (p. 68). These categories provided a framework for understanding the expectations for student teams at RRU. Based on the language in the LTM (Royal Roads University, 2013a), it was reasonable to state that RRU aspires to promote cooperative learning groups. Student teams are often graded collectively, and the LTM (Royal
Roads University, 2013) aspires to support student team success beyond the capacity of any individual student.

Johnson and Johnson (1999) focused primarily on the impact of mutual effort on successful team learning. For example, they stated:

The more conceptual the task, the more problem-solving required, the more higher-level reasoning and critical thinking, the more creativity required; and the greater the application required of what is being learned to the real world, the greater the superiority of cooperative over competitive and individualistic efforts. (p. 72)

This pro-social understanding of groups was supported in more recent literature on teams. Salas et al. (2005) highlighted team orientation as a key component of team success. They defined team orientation as the “propensity to take other’s behaviour into account during group interaction and the belief in the importance of team goals over individual members’ goals” (p. 561). This corresponded to Johnson and Johnson’s (1999) concept of positive interdependence, which they define as the “perception that we are linked with others in a way so that we cannot succeed unless they do” (pp. 70-71). Which supported an understanding of team success based on the quality of the cohesion of the team. Less well developed in this literature was a second understanding of cooperative learning groups. That is to say, cooperative groups must not only socialize well, but they must also process information well. In this view, success was not the result of social processes alone, but on at least one other concurrent process, successful learning (Edmondson, 2012).

Within each construct, individual, group, purpose, and work concerns must be managed and resolved if the group were to be considered successful. The constructs of cooperation, coordination, and collaboration provided a simple framework within which educators and
students could develop, analyze, and evaluate teamwork. Cooperation was the simplest construct and the easiest for groups to learn; collaboration was the most complex construct and the hardest for groups to learn. Coordination represented a middle stage of group development. Taken together, cooperation, coordination, and collaboration offer a simple and justifiable framework for characterizing teams and defining team success (Mattessich, Murray-Close, & Monsey, 2001).

Supporting Successful Teams

Much of the literature I reviewed presented a simple cause and effect model for teamwork (Figure 2). Teams successfully achieved their goals if they possessed contextually appropriate attributes and processes. In much of the literature on teamwork, attributes (i.e. group size, diversity, leadership), processes (i.e. decision making, managing conflict, communicating), and context (organizational environment, purpose) were seen as inputs that, when properly developed and integrated by each member of the team, resulted in successful outcomes (e.g., Stahl, Makela, Zabnder, & Maznevski, 2010; Salas et al. 2005) as shown in Figure 2. In this model, designing teams with appropriate attributes, and training team members about appropriate processes could lead to team success.

$$\frac{Attributes + Processes}{Context} \rightarrow Outcomes$$

Figure 2. Simplified model summarizing team success as a linear cause and effect relationship.
There was another body of literature that suggested the relationship between causal variables (attributes, processes, context) and effect (outcomes) was insufficient to explain the complexity of variables and relationships influencing team success (Bleakley, 2014; Engeström, 1999; Engström 2009; Jonassen & Rohrer-Murphey, 1999; Kildoff, 2014; Lingard et al., 2012; Williams & Hummelbruner, 2010). This literature was largely conceived within a constructionist framework, and seemed to me to be an appropriate addition to the discussion about supporting successful teams within the context of RRU’s constructionist LTM (Royal Roads University, 2013a).

Activity Theory (AT) (Engeström, 1999; Engeström, 2009) was representative of this constructionist literature. AT understood success to be the emergence of a revised understanding of the relationship between the subject (student) and the object (teamwork), between the narrow assigned team task and the longer-term outcome of teamwork. The task was the artefact, or immediate product, of the team’s effort. The outcome was the sum of the experiences of the team, the legacy of working together. This had particular resonance for me in the context of teams in a classroom setting. Student teams are tasked with completing an assignment or activity and producing an artefact (e.g., essay, presentation), but this artefact is not the purpose of teamwork at RRU. The real purpose is learning; the artefact is simply a representation of that learning. Through this frame, team success was not just the quality of the artefact, but the quality and character of the learning associated with the development of the artefact.

In this view, learning was not simply the acquisition of new skills and knowledge, but a process through which we developed an understanding of the real world, “draw meanings from that understanding, create learning from those meanings, and are motivated to respond to those learnings” (Williams, & Hummelbruner, 2010). Learning, in this view, was a social process
rather than a mental process, influenced by the conditions, conventions, and objects in the environment. In this understanding, attributes, processes, context, and outcomes connect through feedback loops (Figure 3).

![Figure 3. Simplified model summarizing team success as a feedback loop.](image_url)

In addition to opening up alternative perspectives on team success, AT also aided my research by its descriptive power. AT described the learning environment as a network of multiple elements that influence learning and eschewed causal relationships, preferring instead to suggest a complex and emergent interplay between the various elements in the environment, the implication being that team success was not solely a matter of developing the capacities of individual team members, but also a matter of considering and developing the social and historical context within which teams operate.
From a constructionist perspective, we must consider the impact of the learning environment on team learning, and the possibility that modifications in the learning environment could also have an impact on team success. One example drawn from the literature on computer supported cooperative work (CSCW) was illustrative of this point (Schmidt, 2011; Schmidt & Bannon, 2013). In support of feedback in teamwork, Kjeld Schmidt (2011) argued that the nature of the task itself shaped how a team processed and completed the identified task. Schmidt offered up an analogy to moving furniture. A single person, perhaps two, more easily moves a single dining room chair into another room than a larger group. If a larger group attempted to move the single chair, negotiations over roles and responsibilities, and conflicts over the fairness and equity of the divisions of labour are likely, especially if we extend the analogy to the classroom, and include a supervisor faculty member whose role it is to analyze, evaluate, and reward the quality of the team’s efforts. Conversely, a group is ideally suited to moving a piece of heavy furniture, or a suite of furniture. The task itself promotes communication, coordination, an equitable division of roles and responsibilities based on diverse capacities. Schmidt was suggesting that teams were more likely to be successful in an environment where teamwork was the appropriate strategy for accomplishing a given task, and that not all tasks are appropriate for teams.

The literature on AT and CSCW opened me up to consider team success from a wider perspective, and to be open to the possibility that the learning environment itself could influence team success. Developing teams was not just a matter of training for attributes and processes, but also a matter of understanding, interacting with, and potentially designing the environment within which student teams operate. This understanding of the relationship between teamwork
and its environment encouraged me to consider the wider context of student teams at RRU, and its potential impact on student team success.

**Making the support for successful student teams durable.**

I was interested in finding possible strategies for developing, holding on to, and disseminating information about successful student teams. The creation of the CCC represented an opportunity to strengthen and formalize the practices and relationships supporting student teams, and I felt that the literature on Communities of Practice (CoP) (Wenger, 1999; Wenger, McDermott, Snyder, 2002) offered a potentially useful framework for 1) understanding these relationships and practices, and 2) hardening these practices to make them durable.

The knowledge of experts is an accumulation of experience – a kind of ‘residue’ of their actions, thinking, and conversations – that remains a dynamic part of their ongoing experience. This type of knowledge is much more a living process than a static body of information. Communities of practice do not reduce knowledge to an object. They make it an integral part of their activities and interactions, and they serve as a living repository for that knowledge (Wenger, et al., 2002, Chapter 1, Knowledge Lives in the Human Act of Knowing, para. 2).

Members of a CoP develop a shared practice within a specific domain by coming together in joint activities, sharing stories and information, and by working together to solve problems. Wenger’s (1999) insight was that social structure could foster organizational learning, outside of the formal business hierarchies and reporting relationships. For Wenger et al., (2002) domains of knowledge “become focal points for connecting people in different units who are working on potentially related projected (Chapter 1, Ushering in the “Double-Knit” Knowledge Organization, para 4). In this conceptualization, the community provided the warp upon which
learning was woven together whereas the practice was “a set of frameworks, ideas, tools, information styles, language, stories, and documents that community members share” (Wenger, et al., 2002, Chapter 2, A Structural Model: Domain, Community, and Practice, para. 4). The domain is the topic the community focuses on. Together, practice, community, and domain define a CoP.

My interest in CoPs derived from its application in the context of organizational learning. “For organizations, it means that learning is an issue of sustaining the interconnected communities of practice through which an organization knows what it knows and thus becomes effective and valuable to the organization” (Wenger, 1999. p. 8). Wenger (1999) also understood that learning did not only occur at the level of the institution, but at the level of individuals, and at the level of the communities. I was also struck by the similarity in the Learning Cycle developed by Wenger, et al. (2002), and my simplified feedback loop for team success. I did not explore these aspects of CoP in my original literature review; they gained currency once I reflected on my findings and conclusions, so I returned to the concept of a CoP in my discussion in Chapter 5.

Chapter Summary

In this chapter I reviewed literature on characteristics of successful teams and on supporting successful teams. Much of the literature on team success was based on a simple model of team attributes, team processes, and contextual variables. Within this model, team success can be understood to be one or more of three characteristics: performance, satisfaction, and efficiency. One weakness in this model was that it placed much of the responsibility for success on the individual within the team. AT set the stage for a more holistic study not restricted to individual success, opening up possibilities for supporting team success through
such things as the design of learning environment and the design of team assignments. Wenger (1999) also expanded the responsibility beyond the individual to include a CoP, emphasizing the importance of learning as a social process that connects individuals, communities, and organizations. In my literature review, I focussed on the value of a CoP in supporting durable knowledge about teamwork inside RRU. In the next chapter, I focus on my research methodology, research methods, and ethical obligations.
Chapter 3: Inquiry Approach

I applied action research engagement to answer my major research question: how can the CCC better understand how stakeholders define ‘success’ in student teams and subsequently improve its ability to provide support to these learning teams? In support of this question, I asked the following sub question: what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU? In this chapter, I present my inquiry approach, introduce the research participants, and detail my inquiry methods. I finish the chapter with a discussion about how I address my ethical obligations in this research project.

Inquiry Approach

Action research has many variations (Chandler and Torbet, 2003, Zuber-Skerritt, 2012). I have modeled my methodology on the action research engagement model (ARE) (Rowe, Graf, Agger-Gupta, Piggot-Irvine, & Harris, 2013), which subdivides the action research process into three iterative phases. Change readiness is the first phase, and defines the limits of my research responsibilities. In the transitional phase, responsibility shifts from me, in my role as researcher, to stakeholders, including me in my role as team coach and faculty. In the final phase, the organization has responsibility for reconstructing and re-contextualizing my research into action, should they choose. ARE focuses on change readiness by emphasizing the preparation and context setting for change, and seeks to shift attitudes, “perspectives, knowledge and values among people in the organization by enhancing meaningfulness, clarity and commonality of purpose, motivation, and commitment for change” (Rowe et al., 2013, p. 19). ARE emphasizes that transformational organizational change requires employee engagement. By focussing on laying the ground for change, ARE seeks to improve the likelihood of successful organizational change.
My research strives to support this preparation and shift by focusing and framing the organizational context, by engaging stakeholders in actions of inquiry and dialogue, by analysing and reflecting on the research process and gathered data, and by engaging stakeholders with my findings and evaluating possible strategies for moving forward (Rowe et al., 2013, p. 21). Differentiating the phases of ARE in this way is supported in the literature. Stringer (2014) describes “setting the stage” (pp. 73-96) and Coghlan and Brannick (2010) discuss the importance of the “pre-step” (pp. 8-11), setting the context and purpose for action research. ARE focuses on building the groundwork for change through engagement with stakeholders; the secondary and tertiary phases of change happen after ARE research. I carry the change project forward into these later transformational phases by continuing to dialogue and investigate with stakeholders (see Chapter 5, Organizational Implications) outside the boundaries of my research.

I used ARE to affect changes in current organizational teamwork practices based on the knowledge and experiences of those directly involved with those practices. By using ARE, I aimed to engage stakeholders in the topic of student teamwork. Research participants are affected by current teamwork practices, and through my action research project, they had the opportunity to shape and direct potential developments in teamwork. Also, I am not an outsider; I am an active participant in teamwork at RRU. ARE provided a framework within which I could acknowledge and integrate my own voice, the voices of those I work with, and voices of the wider institution (Coghlan & Brannick, 2010). By using an action research engagement methodology, we were able to investigate our own experiences, and begin the process of building a shared understanding of the strengths and challenges of current practices. Through ARE, I was able to share the “power of knowledge production” (Stringer, 2014, p. 6) with those directly affected by my research.
I also filtered my research through the lens of an appreciative stance (Cooperrider & Srivastva, 1987), which is an adaptation of appreciative inquiry.

Appreciative Inquiry is a form of action research that attempts to create new theories/ideas/images that aide in the developmental change of a system [Cooperrider & Srivastva, 1987]. The key data collection innovation of appreciative inquiry is the collection of people’s stories of something at its best…. These stories are collectively discussed in order to create new, generative ideas or images that aid in the developmental change of the collectivity discussing them. (Bushe, 1987, p. 40)

It was my intention to strengthen and focus my action research by applying the generative outlook of appreciative inquiry to my action research, hence the lens of an appreciative stance. Some RRU students, staff, and faculty view student teamwork as a source of administrative and student problems (M. Cornish, personal communication, May 20, 2014; K. Mcleod, personal communication, June 16, 2014; J. Orr, personal communication, October 7, 2014; L. Pettit, personal communication, October 9, 2014). By adopting an appreciative stance, I wanted to encourage participants to also consider current and potential successes. My goal was to interfere with any inclination to become locked within a negative construction of student teamwork.

In my research, this generative orientation included the search for the causes of problems but focussed on likely solutions. The informal motto of the new Coaching and Counselling Centre is “Coaching students for success” (R. Mason, personal communication, January, 2014). The Centre’s goals are aspirational; in the spirit of this motto, I used appreciative language when writing my research questions. In orienting my questions toward the success of student teamwork, I wanted to encourage stakeholders to consider the possibilities for enriching and enhancing the student team experience. Furthermore, in my interviews, I encouraged
participants to consider and share successful teamwork experiences. Finally, in developing my recommendations, I strived to remain oriented to the generative potential within the system by building on successes rather than simply resolving problems.

My research was conducted through an ARE methodology supported by an appreciative stance. In keeping with the iterative process of ARE (Rowe et al., 2013), this study was potentially the start of a much wider-reaching organizational change project. The findings and recommendations of this project could be re-contextualized and reconstructed by the university leadership to support student success across all programs. In these future iterations, leadership for change falls to the project sponsor and others at the university.

**Project Participants**

The Director of Student Services and I discussed options and rationales for approaching a focal program for the project. From the perspective of organizational leadership and potential future iterations of research, there were several programs where the perceived need for student team support was high (K. Mcleod, personal communication, June 16, 2014) including the BAPC. BAPC and other programs had already requested additional support for student teams and all were willing to participate in this research (K. McLeod, personal communication, June 16, 2014). In the end, convenience determined our final choice for the locus of research in the BAPC. At a practical level, in the context of RRU, the BAPC program was of average size (K. Mcleod, personal communication, June 16, 2014; M. Cornish, personal communication, November 21, 2014), had a diverse range of students, had on campus and blended programs, and had students starting and in mid-stream over the research timeline. These characteristics of the BAPC student population mirror many other undergraduate programs at RRU, which supported the identification of patterns and application of recommendations to other programs.
I drew from a population of 140 individuals for this study. The primary population of 97 individuals was bounded by their direct involvement in the delivery of the BAPC and included 84 students, 11 core and associate faculty, and two administrative staff. Ten students and three administrators and faculty participated in the research project. A secondary population of 43 individuals was bounded by their functional support for team-based learning in BAPC, and included 26 CTET professionals, one Writing Centre professional, and 16 Counselling Services professionals and administrators. Six support professionals and administrators participated in the research project. Together, these primary and secondary populations represented a system that supported student teams in the BAPC program.

I invited 84 students via email to participate in an online survey. Of those 84 students, I planned to invite six to participate in a follow up focus group. In addition, four BAPC instructors, the BAPC manager, and BAPC administrators were invited via email and by letter to participate in a second focus group. Finally, four support unit professionals and administrators were invited via email and by letter to a third focus group. The 84 students selected for the survey were chosen on the basis of their membership in the BAPC 2014 online and on campus cohorts. Students currently enrolled were likely to have recent and vivid narratives about their student-learning team experiences. As well, contact information for this population was likely to be up-to-date, which could have improved the survey response rate. All students in these two cohorts were invited to participate in the survey.

Response rates for self-administered surveys vary based on a number of variables including the age of the population, advance notice, and distribution mechanism and commonly range between 20% and 30% (Kaplowitz, Hadlock, & Levine, 2004). Research showed that response rates for electronic surveys were higher among younger age cohorts than for older age
cohorts, and higher for university students than the general population (Fan & Yan, 2010; Kaplowitz et al., 2004). The BAPC students fit a profile for higher response rates. Research also showed that response rates increased when participants were given an advance invitation (Kaplowitz et al., 2004). With this in mind, I invited students to participate via an advance email, two days prior to opening the survey (Fan & Yan, 2010). Taken together, I aimed for a response rate between 20% and 25%, or 16 to 21 survey respondents.

I suggested inviting six students to participate in a focus group from the self-identified pool of interested survey respondents. I believed an optimal mix of student participants would be four females and two males between the ages of 20 and 35, three participants from the on line cohort, and three from the on campus cohort, or as close to that representation as was possible (Suen, Huang, & Lee, 2014). In the event more than six students meeting the selection criteria expressed interest in participating in the focus group, I decided to choose candidates on a first come, first served basis.

I also proposed choosing four instructors to participate in a second focus group by seeking at least one faculty with experience teaching on campus and at least one faculty with experience teaching online, or as close to that representation as is possible. In addition to the four instructors, the BAPC manager and the BAPC administrator were invited to join this focus group. There were only two BAPC administrators and one BAPC manager, so there were no selection criteria for these three participants. In the event I had more than four instructors meeting the selection criteria expressing interest in participating in the focus group, I proposed choosing representative candidates on a first come, first served basis.

The four participants for the third focus group were drawn from the support services network with the aim of having at least one participant from each of the three service units
STUDENT SUCCESS ON STUDENT-LEARNING TEAMS

(CTET, Counselling Services, and the Writing Centre), or as close to that representation as possible. In the event more than four candidates meeting the selection criteria expressed interest in participating in the focus group, I proposed choosing representative candidates on a first come, first served basis. If there was a low response from the students, the manager, and/or the support services network, I proposed combining the participants through a sampling of convenience into a single focus group with representatives from all three populations. I decided to conduct the focus groups with as little as four participants. In the event I attracted fewer than four candidates for any of the focus groups, I proposed cancelling it. In the case of poor to no volunteers for the student focus group, I decided not to replace it with other instruments. In the case of faculty, administrators and professionals, I considered using interviews as an alternative instrument for collecting data. Table 3 summarizes my proposed commitment from participants, the intermediate commitment from potential participants, and the final commitment from actual participants.

The table shows that students did not respond to my repeated requests for participation in the survey and the focus group at the level I planned. In the end, only ten students responded to the survey, and none volunteered to participate in the focus group. I discussed the low response rate to the survey with the BAPC administrator and faculty. They suggested that BAPC students are generally reluctant to complete surveys and evaluations, citing lack of engagement, heavy workloads, and time constraints (L. Pettit, personal communication, January 19, 2015). I contacted students in advance of the survey, and three times while the survey was open. I reviewed my procedures, including timelines, letter of introduction, and survey details. I discussed a number of options with BAPC staff and faculty, including offering incentives and extending the survey deadline, but we concluded that my project timelines rendered them
impractical. As a consequence, I relied solely on the data from the ten surveys to represent the views of BAPC students.

Table 3

**Participant Commitment at Two Phases of Participation**

<table>
<thead>
<tr>
<th>Proposed Participant Commitment</th>
<th>Final Participant Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAPC Students Survey</td>
<td>84</td>
</tr>
<tr>
<td>BAPC Student Focus Group</td>
<td>6</td>
</tr>
<tr>
<td>BAPC Faculty and Administrators Focus Group</td>
<td>6</td>
</tr>
<tr>
<td>Support Network Focus Group</td>
<td>4</td>
</tr>
</tbody>
</table>

Six BAPC faculty and administrators volunteered to participate in a focus group. On the day of the interview, three of the instructors were unable to attend. These last minute cancellations made it difficult for me to cancel the focus group. I decided I did not have the time to reschedule. I also did not want to penalize those participants who did show up by cancelling or rescheduling the focus group. I conducted the BAPC administrators and faculty focus group with three participants. Participants suggested that lack of engagement and competing priorities contributed to the last minute cancellations. In keeping with the underlying assumptions of ARE, staff and faculty expressed greater interest in the research once I shared my initial findings (see Chapter 5 Organizational Implications).

In the end, six professionals from the support services group volunteered for their focus
group. Based on feedback from my project sponsor, I decided to add two additional participants to this focus group. This decision was based on our shared recognition that the focus group also represented a rare opportunity for sharing ideas and opinions across departments, which supported an overarching objective of this project to foster organizational change. Through the survey and two focus groups, I collected data from 19 participants: ten students, three BAPC administrators and faculty, and six professionals from RRU support services.

The inquiry team consisted of three individuals providing support for the gathering of data and the reporting and implementation of recommendations. A transcriptionist joined the team to transcribe focus groups. Finally, the Director of Student Services and the Project Sponsor joined the team to liaise with the wider Coaching and Counselling Centre initiative and the university executive. I originally also had a fellow Leadership student on my inquiry team, but they withdrew from the program, and stepped down from my team at the same time. I chose not to replace this member of my inquiry team.

Inquiry Methods

I used an online survey and two focus groups to collect the data for my inquiry. I analyzed the data through three iterations using four coding methods: In Vivo, descriptive, categorical, and thematic. The details of my proposed and final study conduct are also presented. My analysis and findings are presented in Chapter 4.

Data collection.

Data were collected through an online survey and two focus groups. These two data collection methods were chosen to balance a number of study considerations and constraints. I gathered data from the three groups of participants separately as a strategy for creating some space for distinct views on teams to surface. I also chose separate collection methods that
honoured a variety of descriptions and experiences of team-based learning at RRU. My data collection methods also needed to allow for the wide geographic distribution of participants, since some faculty and student participants attended RRU at a distance via the LMS. Surveys are easily developed and conducted remotely (Jansen, 2010; Schutt, 2015). This flexibility allowed me to include students from face-to-face and blended learning cohorts. The survey also allowed me to gather data from a large number of students within a short period of time at minimal cost. Finally, I felt that an online survey was a truthful method of data collection because it allowed students to report their experiences anonymously. Similarly, current collaboration and audio recording technology facilitates conducting focus groups at a distance. Taken together, I chose a qualitative survey and focus groups as authentic and truthful methods for achieving my research objectives.

In keeping with the overarching methodology of my research and the character of my research questions, I chose survey questions and a survey format that gathered data in the form of written narratives and descriptions. While quantitative statistical surveys are used to analyse frequencies of characteristics in a population, “the qualitative survey analyzes the diversity of member characteristics within a population” (Jansen, 2010, abstract). It is the diversity of experiences and characteristics that supported my data analysis, and why I argued that a qualitative survey had value in this study. Computer and language literacy were requirements for studying in the BAPC program, so this form of data collection presented few inherent barriers to participation.

In addition to the student survey, a subset of faculty and staff, and a subset of the extended support network were each invited and further selected to participate in a separate focus group. The focus groups were semi-structured and loosely divided into five parts: an opening activity,
an opening question, three focal questions, a transition question, and a closing question (Appendix B). The main benefit of using a focus group as a data collection method is the social interaction between the participants, which can encourage the exploration of multiple viewpoints (Gibbs, 1997; Kitzinger, 1995). My focus groups brought together relatively homogenous actors (online and on campus students, faculty and staff, and diverse support services) who had limited organizational interaction (Gibbs, 1997). This had the additional benefit of encouraging informal and significant networking across boundaries in the team-based learning system at RRU (Hamilton, 2014; Roxå & Mårtensson, 2008), which could build support for this organizational change project. The social interactions in the focus groups helped me explore the variations in experiences with student teams at RRU.

The social character of a focus group also posed limitations, especially in a group of participants that knew each other well. Individuals can be influenced by ongoing power dynamics and/or by concerns about loss of anonymity in the group setting. Furthermore, groups of relatively homogenous participants are susceptible to groupthink. With these limits in mind, I did not assume that participants were providing their definitive views on their experiences with team-based learning, but rather they were speaking within a specific culture and context. Within the framework of my research, these limitations were not a significant barrier to using focus groups because I specifically looked to explore student teams within its specific culture and context. I further addressed these concerns by opening each focus group with an individual written reflective activity, which sought to surface the unique mental orientation of each participant before the socializing effect of the group dominates.
**Study conduct.**

Drawing from 140 potential participants, I gathered data from 19 of them through a survey and two focus groups. Multiple qualitative methods were used to address ethical concerns related to power and consent, to triangulate data, information, and knowledge, to accommodate a range of sizes and availabilities of participant populations, and to enhance community ownership of the project.

I began collecting data through the survey and followed with the two focus groups. Prior to conducting the survey and the focus groups, I prototyped and revised my collection instruments and questions, and practiced with the recording technology. Inquiry team members helped me design and create the survey; they, and others in my learning community, tested the survey and provided feedback before I deployed it. This feedback was used to estimate the time for completing the survey, to revise the survey questions, to update the survey template, and to ensure functionality before releasing it to the participants. In addition, this test group was invited to prototype a focus group. Their participation and feedback were used to revise the questions, to update the opening activity, and to test the recording and online collaboration technology. Copies of the prototypes, feedback, and revisions were kept as part of the archive of records for my research.

With the support of the BAPC office, student participants were emailed an invitation (Appendix C) to participate in the survey 48 hours in advance of opening the survey. 48 hours later, a follow up email with the link to the survey was sent. The survey was originally open for seven days. Half way through this initial period a reminder email was sent to all participants. At the end of the original opening, only four students had responded. Due to this low participation, I decided to extend the opening of the survey for seven more days, and sent a fourth email
reminder to all participants. By the close of the survey, ten students responded. The survey was conducted electronically through FluidSurvey™. The survey consisted solely of open-ended questions, and was divided into four parts: an opening activity, an opening question, three focal questions, and a closing question (Appendix B). The survey was tested to take between ten and 20 minutes to complete, and in the end, the average completion time was 16 minutes. Once the survey was closed, the data were downloaded from FluidSurvey™ and will be stored in hard and digital copy for five years.

While the student survey was underway, the BAPC faculty and administrative participants, and the extended support network participants were invited to participate in separate focus groups via email and by personal invitation (Appendix E). The BAPC administrators facilitated the distribution of the electronic and physical invitations to faculty. The Director of Student Services facilitated the distribution of the electronic and physical invitations to Student Services professionals and administrators. The Director of the CTET facilitated the distribution of the electronic and physical invitations to CTET professionals.

I invited candidates to each focus group via email. I also contacted candidates who were unable to attend via email and thanked them for their support and interest in my research and informed them that I would follow up with a link to the completed study. I contacted each participant 24 hours in advance of the focus group confirming time, length, and location of the session. Each focus group was expected to take 90 minutes. Originally, I planned to have one of my inquiry team facilitate the student focus group because of a potential power -over relationship, but, after determining power issues were not an issue, I decided to facilitate all groups myself. In respect of participant time, I facilitated each focus group for 90 minutes. Both focus groups were held at RRU. The sessions were recorded and transcribed verbatim by a
member of the inquiry team. I electronically thanked each participant within a week of his or her focus group. Electronic data and paper records from these sessions will be kept for five years.

**Data analysis.**

I used an iterative process to analyze the data. Data were initially analysed using In Vivo and descriptive codes. The results were then broadly categorized based on observed patterns, theoretical concepts, and institutional context. Finally, I themed the data based on observed patterns and theoretical concepts. I strived to maintain a theoretical sensitivity (Jones, Torres, & Arminio, 2014) and not “constrain possible new interpretations as a result of having … previous knowledge” (Chapter 7, Role of theoretical sensitivity, para. 2.). Throughout each of these iterations, I deliberately stepped back and went through the data multiple times to help ensure authenticity and trustworthiness in my coding and interpretations (Table 4).

I began by separately reading each transcript while listening to the audio recordings. My aim was to relive the emotional and social experience of the interview.
As I listened and read, I highlighted words, phrases, and passages that seemed emotionally resonant and relevant to the participants. I read the transcripts a second time, highlighting additional sections that stood out for me. I followed a similar process for the student survey. In this initial analysis phase, I relied on In Vivo codes. In Vivo coding highlights the verbatim language in the data, honouring and prioritizing the voice of each participant. It was particularly useful because it brought to the surface the language that participants used to describe their experiences, rather than the language of literature or the language of the researcher in describing those experiences (Saldaña, 2013, p. 91). Once I completed the In Vivo coding, I copied the highlighted passages into a three-column table, a format sometime used by ethnographers (A. McGillivray, personal communication, February 25, 2015). I used a separate table for each participant group. The highlighted passages appeared in the first column. Each passage was a datum from which I built the next iterations of my analysis. In the second column, I described, through direct quotes, summary phrases, key words, and reflections, the various topics talked
about in the passage. These descriptive codes were a bridge to secondary iteration of my data analysis (Saldaña, 2013, p. 87).

I further interpreted the initial coding in a second iteration of analysis. In this iteration, I used the third column in my table to cluster the descriptive codes into larger conceptual groupings based on overlaps in meaning, emotion, and concept. In part, I relied on my initial review of the literature to identify likely clusters, but I was not bound by my understanding of the literature at this stage of my analysis. In several instances, categories of data did not fall clearly into my familiar literature, so I also took time during this phase of data analysis to delve into new bodies of literature. I captured these patterns and categories in the three-column table. In my third and final iteration of analysis, I began to identify themes in the data, which I attempted to connect to the literature to “begin to transcend the ‘reality’ of [my] data and progress toward the thematic, conceptual, and theoretical” (Saldaña, 2013, p. 12) in aid of facilitating change, which is, of course, one of the aims of ARE. At the start of this iteration, I wrote out all the identified categories from each participant group in a separate, multi-column table. Under each category, I wrote representative In Vivo codes and descriptors. With this overview, I began looking for overlaps and distinctions between the three sets of data. In addition, I also considered the strength of each category by identifying the number of participants associated with each category. Specifically, I highlighted categories represented in all three participant groups, categories represented in two of the participant groups, and categories represented by significant numbers of participants within a single participant group. I captured these categories and their relative strength in a third table.

My literature review on student-learning teams, collective learning, and teamwork was used to inform emerging themes and patterns in the data. In identifying categories and themes, I
attempted to relate the structure and meaning of variations within and between groups so as to learn about participants’ understanding of teamwork and generalize lessons for collective knowledge and learning (Collier-Reed, Ingerman, & Berglund, 2009, p. 340). The three-column table in my 2nd iteration, the multi-column table in my third iteration, and the notes associated with each served as the core of my learning journal. I kept copies of the electronic and physical tables as part of my record keeping for this project.

I aimed to engage participants and the university through the trustworthiness and authenticity of my research. Thomas Schwandt, Yvonna Lincoln, and Egon Guba (2007) provided a framework for understanding trustworthiness and authenticity in qualitative research. They suggested that trustworthiness was analogous to conventional conceptions of truth. In order to be truthful, the research must have internal validity (credible), external validity (transferable), and be dependable (confirmable), and objective (neutral). But they also suggested that research should be authentic. In order to be authentic, the research must reflect fairly the various views of participants in my research setting. According to Schwandt, et al. (2007), in order to be authentic, my research must be fair (a balance of views, negotiation of recommendations), subject to ontological authentication (“improvement in the individuals [and group’s] experience of the world” [p. 22]), possess educative authentication (“opportunity to become educated about others of different persuasion” [p. 23]), catalyze authentication (“facilitate and stimulate action” [p. 24]), and encourage tactical authentication (“providing all persons at risk [from the recommendations] with the opportunity to control it as well” [p. 24]). I aimed to meet the twin criteria of truthfulness and authenticity in the design, implementation, and reporting of my research.
Throughout the inquiry, I maintained a transparent and ongoing record of documents and decisions throughout the iterative process of gathering and analysing data. These records are useful for supporting and justifying decisions and alterations common to action research. This “audit trail [provided] a mechanism for retroactive assessment of the conduct of the inquiry […] as well as the trustworthiness of the results” (Rodgers, 2008). The trail included archives of the raw data, data reconstruction and synthesis products (e.g., structures of categories, themes, and relationships; final report), process notes (e.g., method and methodological notes), materials relating to intentions and dispositions (e.g., inquiry proposal, personal notes, reflections), and instrument development information (e.g., pilot forms, preliminary schedules, and prototype questions).

**Ethical Issues**

I followed the Tri-council Policy Statement (TCPS2) of Ethical Conduct for Research Involving Humans (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2010) to address my humanistic and ethical obligations in this research. The Research Ethics Board at Royal Roads reviewed my research proposal based on the standards laid out by the TCPS, which outlines three core elements of ethical and humanistic research: respect for persons, concern for welfare of persons, and justice.

Respect for persons imposes two moral obligations on the researcher: respect for the autonomy of the participant, and protection for those with “developing, impaired or diminished autonomy” (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2010, p. 8). In this study, all participants were adults and considered fully autonomous. Participation in
the study was voluntary, and participants were able to withdraw at any point without penalty. Participants were provided with detailed and honest information about the project, its design, potential risks and benefits goals, and commitments (Appendix E; Appendix F). These details supported an open and free process of consent, which is the foundation for respect for persons. I did not have a power over relationship with any of the participants in this study.

In this project, there was one area of concern for the welfare of participants: privacy of data. All data was stored either electronically or on paper. Electronic data was securely stored on my computer using available passkey technology and backed up to a secure remote facility. When not in use, paper records were secured in a locked file cabinet at Royal Roads or at my home office. Only members of the inquiry team had access to the data, and even then, only to the data necessary for their contribution. For example, only the transcriptionist and I had access to the original audio recordings of the student focus group. FluidSurvey™ is an online survey software program owned by Survey Monkey™, a US-based survey software company. FluidSurvey™ servers and data are currently held separately from its parent company, and as of September 4, 2014, are still based in Canada and subject to Canadian laws. This may provide some additional protection from the USA Patriot Act (2001) and may also address some privacy concerns raised by participants. In addition, I adjusted the privacy setting in the survey so that the IP address, location, and other identifying markers of the participants were not captured. I conducted the focus groups and a third-party transcribed the audio recordings. The transcriptionist was part of my inquiry team and signed a non-disclosure agreement (Appendix G). I will keep the audio files and the transcriptions for five years after the publication of this project and then destroy the recordings. In these ways, I worked to ensure the welfare of participants.
The principle of justice required that I treat all participants equitably and fairly (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2010, p. 10). None of the participant populations were considered vulnerable. In the recruitment process, I included representation from all groups directly impacted by the research question. No group was arbitrarily excluded from the research, and all stand to “receive fair benefit” from the research (p. 11). There is an inherent imbalance of power between the researcher-practitioner and the participants vis-a-vis the research process. The researcher-practitioner naturally has a deeper and richer understanding of the research process and the surrounding literature than the participants. This deeper and richer understanding can be abused. My chosen strategies for honouring the principles of dignity for persons, concern for welfare, and justice went some way toward addressing this inherent imbalance by providing participants a measure of autonomy and authority within the researcher-participant relationship. Also, the overall design and alignment between methodology, data collection methods and data analysis encouraged political and conceptual parity between the participants and me. The inquiry team and the REB at RRU provided additional oversight.

In the embedded, contextual character of ARE, a certain amount of researcher bias is inevitable. This bias is best addressed by meeting the obligations of quality research, which I defined as research that is authentic and trustworthy (Schwandt, et al., 2007). I discussed some strategies of addressing researcher bias above, including using an inquiry team to provide alternative perspectives, and applying the three core principles of the TCPS2. In addition, I strived to state my philosophical stance and theoretical perspectives clearly and worked to ensure that my research aligned accordingly. In keeping with the principles of action research, I strived
to maintain a high degree of relational competency in my research through reflexive practices, including self-reflection, reflection with other researchers, and reflection with participants (Jones, et al., 2014, Chapter 2, Reflexivity). I believe this reflexivity helped surface assumptions I had about the research and better allowed me to triangulate between the data and the literature and allowed me to bring “voice and insight forward for all constituents… [thereby allowing RRU] to realize their mission more fully” (Jones et al., 2014, Chapter 7, Summary, para 1).

The survey was anonymous, which meant I had no ability to disaggregate data once the survey instrument captured it; data from incomplete surveys were included in the study. Due to the synchronous, social, and interactive character of a focus group, individual contributions were not anonymous to other participants or to me, but contributions were anonymized in the published material. Participants were able to withdraw at any point in the interview process, and were informed of this right in the letters of consent (Appendix E; Appendix F) and at the start and end of the focus group. A simple verbal statement was all that was required to withdraw, but participants were encouraged to confirm this decision in writing via email. In the end, no participants withdrew from the research.

Chapter Summary

In this chapter I presented my inquiry project methodology and supporting frames. I also introduced my research participants. I then detailed my inquiry project methods, my study conduct, and my data analysis methods. I ended the chapter with a description of how I addressed my humanistic and ethical obligations. In the next chapter, I present my study findings and conclusions. I finish the next chapter with a discussion of the scope and limitations of my analysis and findings.
Chapter 4: Action Inquiry Project Findings and Conclusions

This chapter is divided into three sections. In the study findings section, I detail findings under five themes drawn from my data analysis. In the study conclusions section, I detail my conclusions from the research and connect these conclusions to the relevant literature. In this section, I also answer my two research questions. In the final section, scope and limitations of the inquiry, I review the institutional and demographic scope of my inquiry and detail its methodological and researcher limitations.

For the purposes of clarity in this presentation, I used the following terms to refer to the various groups and combined groups of participants. “Students” refers to the BAPC students who responded to the student survey. “Support staff” refers to the administrators and professionals who participated in the support services network focus group. “BAPC staff” refers to the administrators and faculty who participated in the BAPC administrators and faculty focus group; I chose to aggregate this data because of concerns about anonymity. “Organizational participants” refers to participants in administrative, professional, or faculty roles in any part of the university. “All participants” refers to all three participant groups.

Study Findings

Data analysis revealed five themes: cultural diversity of teams, professional practices of faculty and staff, dimensions of team success, designing for learning about teamwork, and characteristics of successful teams. Table 5 provides an overview of my findings. There were variations in the themes between participant groupings, and I highlight these variations in my detailed presentation of each theme.

Just under a third of the organizational participants expressed concern about the culturally diverse student population at RRU. Their concern was unfocussed; they suspected that cultural diversity adversely affected team processes and outcomes. Given RRU’s commitment to
increasing international enrolment, the more general organizational uncertainty about the impact of these commitments, and the fact that BAPC is targeted for accepting international students in the fall of 2015, I decided to keep this as a distinct theme. In addition to the cultural diversity of individual students, BAPC staff recognized that each cohort of students also has its own culture. The theme of culture did not surface in the student survey.

Table 5

Perceived Factors Related to Team Success

<table>
<thead>
<tr>
<th>Factor</th>
<th>Support Service Staff Focus Group</th>
<th>BAPC Staff and Faculty Focus Group</th>
<th>BAPC Student Survey</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity Of Teams</td>
<td>4 67%</td>
<td>2 67%</td>
<td>0 0</td>
<td>6 32%</td>
</tr>
<tr>
<td>Professional Practices Of Faculty And Staff</td>
<td>3 50%</td>
<td>2 67%</td>
<td>1 10%</td>
<td>6 32%</td>
</tr>
<tr>
<td>Designing For Learning About Teamwork</td>
<td>3 50%</td>
<td>3 100%</td>
<td>5 50%</td>
<td>11 58%</td>
</tr>
<tr>
<td>Characteristics Of Successful Teams</td>
<td>6 100%</td>
<td>3 100%</td>
<td>3 30%</td>
<td>12 63%</td>
</tr>
<tr>
<td>Dimensions Of Team Success</td>
<td>6 100%</td>
<td>3 100%</td>
<td>6 60%</td>
<td>15 80%</td>
</tr>
</tbody>
</table>

The second theme was the nature and quality of the professional practices of RRU staff and faculty. All participant groups suggested that student teams benefited from the support of committed instructors, compassionate staff, and effective coaching. The organizational participants further suggested that professional training about teamwork and team design would strengthen professional practices, and therefore allow staff and faculty to better support teams.
Just over half of the participants spoke about how the learning environment influenced team success. Specifically, they mentioned the importance of supporting student learning through an appropriate progression of programs and courses (sequence of courses, progression of content, course content, outcomes, assignments, and assessments), and differentiating the design of individual vs. team assignments (level of complexity, team member interdependence, assessment of outcomes). All participant groups also identified five constraints on learning. These constraints were deadlines (time constraints), workloads (volume of work in a given period of time), LMS (Moodle), longevity of the team, and the modality of learning (face to face, or blended program).

Participants repeatedly spoke about the importance of team characteristics, with just under two-thirds of participants associating positive interdependence among members, and psychological resilience with successful teams. Positive interdependence was the only characteristic discussed by all three populations. Organizational participants, but not students, discussed resilience.

Finally, four-fifths of all participants talked about dimensions of team success. Specifically, they highlighted at least three distinct and connected dimensions along which team success could be measured. The three dimensions were outcomes (completing tasks, goals), social processes (activities that maintain social relationships), and knowledge processes (learning, reflecting).
Cultural diversity.

In Table 6, I detail the variations in responses between participant groups about the impact of cultural diversity on team success. In the table I also identify a second understanding of cultural diversity, the culture of program cohorts. This understanding was unique to BAPC staff and faculty.

Table 6

Perceived Cultural Influences on Team Success

<table>
<thead>
<tr>
<th>Cultural Diversity of International Students</th>
<th>Support Service Staff</th>
<th>BAPC Staff and Faculty</th>
<th>BAPC Students</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=6</td>
<td>n=3</td>
<td>n=10</td>
<td>n=19</td>
</tr>
<tr>
<td>#</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Cultural Diversity of International Students</td>
<td>4 67%</td>
<td>2 67%</td>
<td>0 0</td>
<td>6 32%</td>
</tr>
<tr>
<td>Culture of Program Cohorts</td>
<td>0 0%</td>
<td>2 67%</td>
<td>0 0</td>
<td>2 11%</td>
</tr>
</tbody>
</table>

In their discussions, organizational participants’ perceptions about the relationship between cultural values and team success varied. On the negative side, two participants associated team success with the absence of international students. Perhaps the bluntest statement about this was from Kristi, a participant in the support services focus group, when she said, “So whatever they do [to foster team success] has got to be because that [program] doesn’t have any international [students].” Most statements were more neutral, and three other organizational participants

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2 All names are pseudonyms. In order to further protect the anonymity of research participants, I only identify their association with the university through their membership in one of my three research groups.
simply suggested that cultural diversity was another variable that needed to be considered in teamwork. Carrie, a BAPC focus group participant said,

In 2006 when we had six Chinese students come. And when we hit “randomization” [in team selection], there were four of them in one group. [laughs] And we went, ‘no, this isn’t going to work. We need to spread it out’.

Sandra, from support services, also suggested that RRU must make a case for cultural diversity on teams because some students “don’t understand why they’re working in teams with people from different countries.” The same is not true from the perspective of international students who, Piper, another support services staff, declared “wanted Canadians on their teams.” Some organizational participants saw cultural diversity in student cohorts as a liability but on balance, organizational participants were ambiguous about the impact of cultural diversity on teams. Student participants were silent on this subject.

BAPC staff also suggested that cohorts have their own cohort culture, regardless of the cultural origins of its members and that “good cohorts” and “bad cohorts” were part of regular variations in student team success. The suggestion was that team success was influenced by cohort culture as well as the cultural diversity of its members. In this context, participants were still ambiguous about the impact of cohort culture on teams. This theme did not come up in the discussions again, but it did suggest an alternative perspective on the concept of cultural diversity. In summary, participants’ comments about culture were interesting and varied, and provide insight into the perceptions about the impact increasing numbers of international students might have on student teams.
Professional practices of staff and faculty.

In Table 7 I detail the responses in support of the impact of staff and faculty practices on team success. Support services staff and BAPC staff both suggested that student teams could be further strengthened if staff and faculty had additional training and support for student teamwork. All three participant groups also highlighted excellence in supporting student teams from existing faculty, and that the practices of these faculty could be celebrated and adapted by others.

Table 7

Perceived Influence of Professional Practices of Staff and Faculty on Team Success

<table>
<thead>
<tr>
<th>Professional Practices</th>
<th>Support Service Staff</th>
<th>BAPC Staff and Faculty</th>
<th>BAPC Students</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=6</td>
<td>n=3</td>
<td>n=10</td>
<td>n=19</td>
</tr>
<tr>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Professional Development</td>
<td>2 33%</td>
<td>2 67%</td>
<td>0 0</td>
<td>4 21%</td>
</tr>
<tr>
<td>Acknowledging Existing Successful Practices</td>
<td>3 50%</td>
<td>2 67%</td>
<td>1 10%</td>
<td>6 32%</td>
</tr>
</tbody>
</table>

All three participant groups suggested staff and faculty should continue to develop skills and practices in aid of supporting teams. Several organizational participants suggested providing professional development for instructors around teamwork to improve the delivery of team related outcomes and assignments. For example, Bethanne, a support services staff recommended a training session for instructors to teach them how to use and incorporate appropriate technologies into the classroom. John, a member of the BAPC staff, suggested supporting instructors and students by developing standard operating procedures and frameworks for teamwork.
Speaking for myself, I would like to use that stuff, but there are times and work constraints that make you go “I don’t have time to learn this thing”. You know, if we built it into the little shells or we built it into the rubrics… and said, “here’s how you do this. This is the school policy. Here’s how it works…”

The organizational participants recommended improving professional development and developing procedures to strengthen the skills and practices of faculty and staff. Staff and faculty are not necessarily experts on teamwork and may not have the time to develop this expertise on their own.

RRU does hire some team experts through its team-coaching program. Kristi, a support services staff, conditionally acknowledged the contribution of the existing team coaching program. “It’s shockingly different when you have a good coach at the beginning to help the students.” BAPC does not have regular support from a team coach, and here Carrie, a BAPC staff, acknowledged the need for team expertise:

I had thought originally that a lot of what would be helpful was just having someone to … a counselling area… someone to talk teams through these issues because that’s where I struggle is then I’m approached by students, “I don’t know how to resolve your problems.”

Finally, Piper, another support services staff, also connected faculty skills and knowledge about teamwork to the design of assignments:

The findings or the results showed that it was due to the instructor’s inability to… design instructions for the team that was the biggest issue. For the students, it wasn’t their inability to work together. It was just the instructions that were given. And that was tied into the professional development piece. Are [instructors] even doing any reading and
research and trying to get an understanding of how to develop an environment where teams can thrive?

The answer to the question was a qualified yes. All three participant groups highlighted instances of excellence in professional practices at RRU. For example, in response to a request for examples of well-designed team environments, Kristi, a participant in the support services focus group, singled out the Masters in Environmental Management program: “They do so much together and so much on teams…. I never get those people come and tell me about team problems.” In BAPC itself there are examples of excellence. Carrie, a BAPC staff, highlighted one example: “We have one instructor that usually nails the team assignments… He has consistently, for all these years, got great evaluations, um, even face-... because he does that face-to-face too.” Both organizational participant groups acknowledged that instructors and administrative staff are not experts on teams and teamwork; they suggested providing training, developing procedures, and supporting teams through area experts, and all three participant groups suggested celebrating excellence in professional practices where it was found.

**Designing for learning about teamwork.**

In Table 8, I detail participants’ views on supporting student teams in the classroom. Organizational participants suggested supporting teams through a learning progression for teamwork and through assignments uniquely designed for teams, rather than individuals. In addition, all participant groups pointed toward specific constraints on student team success, which could be addressed through greater attention to the design of learning about and applying teamwork. Students, BAPC staff, and support services staff all suggested that team success could be strengthened by designing for student learning about teamwork.
David, a support services staff, summarized the underlying message when stating that “we don’t design for how important [teamwork] is necessarily.” Bethanne, another support services staff, suggested that “we need a flow that actually makes it work from the… from student experience.” In addition, participants pointed toward five constraints on the design of learning about teamwork. These constraints were time pressures, heavy workload, RRU’s LMS, team longevity (how long the team stays together), and learning modality (face-to-face or blended).

Table 8

*Elements of Design and Constraints on Design*

<table>
<thead>
<tr>
<th>Design Elements</th>
<th>Support Service Staff n=6</th>
<th>BAPC Staff and Faculty n=3</th>
<th>BAPC Students n=10</th>
<th>Total Responses n=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Progression</td>
<td>2 33%</td>
<td>0 0</td>
<td>0 0</td>
<td>2 11%</td>
</tr>
<tr>
<td>Assignment Design</td>
<td>2 33%</td>
<td>2 67%</td>
<td>0 0</td>
<td>4 21%</td>
</tr>
<tr>
<td>Constraints On Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Pressure</td>
<td>2 33%</td>
<td>1 33%</td>
<td>0 0</td>
<td>3 16%</td>
</tr>
<tr>
<td>Workload</td>
<td>2 33%</td>
<td>1 33%</td>
<td>0 0</td>
<td>3 16%</td>
</tr>
<tr>
<td>LMS (Moodle)</td>
<td>0 0%</td>
<td>2 67%</td>
<td>4 40%</td>
<td>6 32%</td>
</tr>
<tr>
<td>Team Longevity</td>
<td>2 33%</td>
<td>2 67%</td>
<td>3 30%</td>
<td>7 37%</td>
</tr>
<tr>
<td>Modality (Face To Face vs. Blended)</td>
<td>3 50%</td>
<td>2 67%</td>
<td>3 30%</td>
<td>8 42%</td>
</tr>
</tbody>
</table>
The data themed around the design of the learning environment suggested that teamwork requires a degree of intentionality, as Piper, a support services staff, said: “An understanding of why we’re putting students through what we put them through…..” Participants strongly suggested that this understanding be used to design teamwork progression over the course of programs and to shape team assignments.

*Designing for teamwork.*

Two support services staff repeated the need for developing a progression for teamwork, beginning with learning about “soft skills.” The suggestion in the interviews was that well-designed learning would allow team members to develop their capacity to work together more efficiently. Bethanne, a support services staff, went so far as to suggest that frontloading learning about social processes might even help teams overcome constraints:

If we could flip things and say that we’re going to frontend load this course with much more behavioural related things here we talk about some of these behavioural things. Then we could actually shrink the timelines of what it takes to get assignments done because we would have overcome some [of] that messiness by just creating the behavioural context earlier. Instead, we expect the behavioural thing to happen while they’re doing the heavy lifting.

Organizational participants enthusiastically clapped when Bethanne suggested that a clearly articulated progression for teamwork would help RRU understand the rationale, benefits, and constraints of teamwork and embed RRU’s “experiential team-based and constructivist aspirations of LTM into reality [in the classroom].” Organizational participants suggested that a well-scaffolded teamwork learning progression must be embedded at the program level.
Support services staff also pointed to the need for connecting the relationship between current teamwork practices and concepts and potential new designs for greater consistency across programs and courses. Although focus group members did not explore this idea in detail, Bethanne, a support services staff person, shed more light on her thinking when she said,

One of the things that we would really like to do when we design a new program is to do some program mapping so that we’re not doing the same, repeat bad habits in every single course…but instead, we map the thing so that, in those early stages, uh, we are more veering toward the “build trust behavioural stuff.”

Participants suggested that design could help ensure consistency in delivery, provide clarity for students and instructors about expectations, and a transparent progression for learning about teamwork. John, a BAPC staff, said, “I think [having a progression] would be enormously helpful in terms of clarity for the students, clarity for the instructors and clarity in the vision of what a team project is.”

Organizational staff also opined that planning and design were the exception, not the rule, in part because of a lack of coordination in design and implementation at the program level, and lack of training and support for staff and faculty. Bethanne, a support services staff, expressed the views of others when she said, “You know, we are so far from having, you know, faculty teams working collaborative in terms of program design and development, so how could they possibly bring that cultural value to the table?” Perhaps even more telling is the disclosure from one BAPC staff who said, “We have some instructors that refuse to do team assignments now, and very few complaints when that gets done.”
Three support services staff suggested one of the reasons for the lack of coordinated design was the intellectual isolation of staff and faculty from wider program outcomes. Bethanne expressed the views of all three:

And the, the instructors are… because they’re subject matter experts, they’re… they still have a very content-centric view [of] what they’re going to pour into someone’s head in a limited period of time without the broader context of the overall program outcomes.

In addition, three organizational participants talked about the impact of the design of team assignments on team success.

*Team assignments.*

The importance of designing effective team assignments was also a recurring theme in the interviews with organizational participants. When prompted about the current design of team assignments, Bethanne, a support services staff, stated, “That’s really interesting… because, uh, a lot… perhaps some of the things that we do would be far easier if somebody just did it independently.” Nick, a BAPC staff, went even further and asked, “I’m just wondering, are our team assignments… do they affect maybe the team dynamics, and how they’re set up… Are we maybe creating conflict by not setting up different assignments for our students?” Alex, a support services staff, provided an answer when suggesting, “I think some tasks lend themselves better to a work breakdown than others … whereas other projects that have multiple components and require different, a variety of strengths … might lend itself better [to teamwork].” Based on the data, it was clear that at least three organizational participants recognized that assignments have an impact on team success.

Bethanne, a support services staff, suggested designing team assignments from the perspective of a project manager.
I always start with a work breakdown so you can deconstruct what it is that needs to be done and break it into the pieces of work … then the lights go on that this isn’t a singular, unilateral [task], but there are other contexts and skills and such that need to be brought together. But until you can visualize that … uh, collaboratively, people can’t perhaps see what these other roles and tasks are that would enhance the work from just doing it by yourself.

All three groups of participants suggested that successfully completing team assignments was aided by clearer delineations of tasks, roles, and responsibilities; designing team assignments through the lens of a project manager was one practical suggestion from the participants for designing assignments for team success. The theme of differentiated responsibilities also emerged from discussions about characteristics of successful teams. I will come back to this linkage in the data in the section on the characteristics of successful teams, under the sub-theme positive interdependence.

**Time constraints and workloads.**

All three participant groups identified time constraints and workloads as areas of specific concern in learning about teamwork. They suggested that time constraints and heavy workloads discourage intellectual risk-taking by student teams. One consequence of this adversity to risk-taking is that students build on existing strengths rather than developing new skills and knowledge. John, a BAPC staff, suggested that the net effect of these constraints is a push for sufficiency rather than intellectual excellence: “But in reality they’re doing four, five courses at a time, mainly on campus, they’re working on team assignments in all of them, they’re all coming at different ways… They’re just trying to fire off things.” Time constraints and workload had an
impact on processes. Under these constraints, teams prioritized completing the assignment over learning.

**Learning Management System.**

 RRU employs a LMS to organize course information in every classroom experience regardless of the delivery (i.e., face to face, online). In an online classroom, the LMS not only acts as a platform for organizing information but also a medium through which RRU expects students to communicate and to coordinate their team activities so that faculty can peer into team processes. Nick, a BAPC staff, questioned this assumption:

So is this idea to be able to control the team dynamics by having it on Moodle, and being able to witness these group discussions… and see where there could be potential issues? Is that why we want to have these discussions on Moodle?

Student participants expressed a high degree of frustration with the current application of this technology. One student was particularly blunt in their assessment that the LMS is a “digital crutch used by instructors and institutions to make it look like students can be engaged with the information well. It does not.” There is no clear solution in the data; one student suggested “Better web 2.0 tools,” and another student more explicitly suggested finding

A platform that can: host team documents on an RRU server (like SharePoint) with access to the standard document array (text, spread sheet, slide presentation), access to non-standard multi-media applications (like Photoshop Elements) in order to build professional presentations, enable real-time team discussions including video, chat, and document highlighting (like Google Hangout), file format conversion tools (between pdf-doc-docx, jpeg-bmp-tiff-raw).
But John, a BAPC staff, also advocated stripping “all this cool [technology] out and let them do it themselves [away from the Moodle classroom].”

John echoed the aspirations of other participants for an effective learning technology when offering Jurgen Habermas’ (1989) ideal of the early 18th century German café – a public space, free from the interventions of authority, where meaningful discussion and dialogue can occur and a consensus can develop: “Everything we’re trying to do here is an online version of Habermas’ 1830s German café.” The suggestion was that faculty should not seek to manage team processes directly but to facilitate a public discursive space independent of authority. The challenge for students is that the technology is another subject for comprehension, as one student illustrated: “Sometimes the learning curve in using the instrument is as challenging as the course material.”

BAPC staff and student participants suggested there are functional and technical concerns about the LMS. Support services staff commented on the challenges posed by online learning generally, but did not specifically comment on the LMS. Regardless, the LMS and other digital technologies are intrinsic to teamwork at RRU, and the data suggested that we must consider these technologies in the design of teamwork, and their impact on team success. John, a BAPC staff, identified the design of the classroom on the LMS as one potential reason for the increased constraints posed by learning online:

I don’t know if we’re building a fake social environment… that [the students] go and have their authentic experiences elsewhere and then they’re forced to come back and spend time replicating that authentic conversation… on a check board.

John suggested that teams were making use of alternative online technologies to have “authentic experiences”, and that the LMS, and in particular the team forum discussions (the official locus
for team communications), a staple of RRU online classrooms, were “fake” and required additional time and work, contributing to felt time pressures and workload.

**Team longevity.**

In addition to expressing concerns about the LMS, participants also focused on the longevity of student teams. Kristi, a support services staff, suggested, “If we had longer time to develop the team, it doesn’t matter who’s on the team.” All three participant groups commented on the impact of team longevity on team success. Angus, a student, commented, “Granted, no student wants to always be teamed with the same bunch for a year! My point is that composition does NOT have to change with EVERY course [emphasis in the original]!” At least three organizational participants echoed these concerns. For example, Sandra suggested “[students] could see even more success if we just gave [team longevity] a little more time.” The theme of cultural effects on teams also surfaced in this conversation with Sandra:

> [Its] harder for our international students because they’re, for the most part, from cultures that are much more family… connection oriented. … It was like we ruined them when we changed teams on them… it was breaking… it was a… like break ups.

The participants were suggesting that in order for teams to learn how to be successful, they need time together to learn. Team changes interrupt team learning.

**Learning modality.**

Participants suggested that the face-to-face and blended modes of learning were quite different from each other. Bethanne, a support service staff evoked some of the qualitative differences when she said:

> It’s fascinating how different are residential vs. online experiences. “Standing around and sing[ing] Kumbaya out in the parking lot [face to face], and then “[going] into your rumpus
room and [shutting] the door and [telling] your family not to bug you because you’re online” right. Like, they’re completely different modalities. The subthemes of learning modality and the LMS were linked but distinct in the data. Participants made general comments about the differences in learning modality, but only the BAPC staff and students specifically commented about the use of the LMS at RRU.

Participants supported a developmental framework for learning about teamwork supported by differentiated, teamwork oriented assignments. They also suggested that improvements in the design of teamwork could address constraints including time pressure, workload, team longevity, LMS, and modalities of learning.

**Characteristics of successful teams.**

Participants discussed positive interdependence and psychological resilience as two characteristics of a successful team. Positive interdependence was the only characteristic discussed by all three participant groups. BAPC and support services groups also identified resilience as a characteristic of successful teams. Support for these characteristics is summarized in Table 9.

Table 9

*Perceived Characteristics of a Successful Team*

<table>
<thead>
<tr>
<th></th>
<th>Support Service Staff n=6</th>
<th>BAPC Staff and Faculty n=3</th>
<th>BAPC Students n=10</th>
<th>Total Responses n=19</th>
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<tbody>
<tr>
<td>Positive interdependence</td>
<td>6 100%</td>
<td>3 100%</td>
<td>3 30%</td>
<td>12 63%</td>
</tr>
<tr>
<td>Psychological resilience</td>
<td>4 67%</td>
<td>2 67%</td>
<td>0 0</td>
<td>6 32%</td>
</tr>
</tbody>
</table>
Positive interdependence.

Positive interdependence was the only characteristic of a successful team mentioned by all three groups. In the discussions, positive interdependence represented a team’s ability to organize and allocate resources in such a way as to allow all members of the team to benefit. As one support services staff stated,

They have to figure out how to get everyone in a group doing the things that they… like you were saying before, “Get the people that their skills that they’re good at, and bring it, so they can all be used at the table.”

In the context of the BAPC program, participants referenced specific, valued, media-related skills and knowledge such as filming and editing, which staff took care to distribute fairly throughout the cohort. “Because we know there are skill sets involved [videography, editing] and spread them out as we can.” More generally, participants recognized that teams that harnessed the diversity of its members, regardless of the specificity of skills and knowledge, tended to succeed.

Participants from all three groups also suggested that sharing skills and knowledge was not in and of itself sufficient for team success, but that teams must figure out how to harness that capacity through positive interdependence between members. Tom, a student, expressed this idea concisely: “Everyone doing a part for a greater outcome, not all necessarily doing the same job.” Five participants further suggested that positive interdependence placed members within a social framework where each had a role within the group, a set of expectations for their behaviour, and a sense of their value to the group. Nick, a BAPC staff, identified the essential characteristics of positive interdependence when providing an example of a successful team from the BAPC program.
They would come in, meet as a group, and assign certain roles, again based on their strengths,… And trying to highlight that instead of getting down on people for what their weaknesses are, just trying to keep it positive.

Positive interdependence between team members provided support in the face of adversity, allowing the team to harness its collective capacity and succeed. Organizational participants connected this characteristic to the second characteristic, psychological resilience.

**Psychological resilience.**

Resilience is an individual’s capacity to adapt to stress and adversity, including those embedded in the learning environment, such as time constraints and workload. Participants from all three groups acknowledged that learning, and especially learning on teams can be stressful, and on occasion adversarial, but six participants identified resilience as a trait that helped team members overcome these challenges. Perhaps the most telling quote about resilience from the interviews was from Kristi, a support services staff, who stated, “The student who causes the most problems [on teams]… they’re not flexible in their thinking.” On the positive side, a number of participants connected resilience directly to success. When asked about characteristics of successful teams, statements like, “It was [their] ability at the last minute to completely change the plan of attack and still be successful,” and, “[They] were adaptable,” reflected the views of other organizational participants.

Taken together, participants from all three groups identified positive interdependence, and psychological resilience as characteristics of successful teams in the context of RRU. I now turn my attention to the final theme: dimensions of team success.
**Dimensions of team success.**

Participants further clarified general team processes into social and knowledge processes. Social processes were further described as communicating, celebrating, and respecting, and knowledge processes were specifically characterized as learning and reflecting. I detail participant support for this interpretation of the data in Table 10.

**Table 10**

*Perceived Dimensions of Team Success*

<table>
<thead>
<tr>
<th></th>
<th>Support Service Staff</th>
<th>BAPC Staff and Faculty</th>
<th>BAPC Students</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=6</td>
<td>n=3</td>
<td>n=10</td>
<td>n=19</td>
</tr>
<tr>
<td>Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td># # % # # % # %</td>
<td># # % # %</td>
<td># # % # %</td>
<td></td>
</tr>
<tr>
<td>Social Processes Supporting Team Success</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicating</td>
<td>4 67%</td>
<td>3 100%</td>
<td>5 50%</td>
<td>12 63%</td>
</tr>
<tr>
<td>Celebrating</td>
<td>3 50%</td>
<td>2 67%</td>
<td>0 0%</td>
<td>5 26%</td>
</tr>
<tr>
<td>Respecting</td>
<td>3 50%</td>
<td>0 0%</td>
<td>3 50%</td>
<td></td>
</tr>
<tr>
<td>Knowledge Processes Supporting Team Success</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning</td>
<td>5 83%</td>
<td>2 67%</td>
<td>4 40%</td>
<td>11 58%</td>
</tr>
<tr>
<td>Reflecting</td>
<td>3 50%</td>
<td>2 67%</td>
<td>0 0%</td>
<td>5 26%</td>
</tr>
</tbody>
</table>

Participants from all three groups used outcomes, social processes, and knowledge processes separately and in conjunction to describe a successful team. Sandra, a support services
STUDENT SUCCESS ON STUDENT-LEARNING TEAMS

staff, suggested that success be measured not only in terms of achieving the objective, but also in terms of the process followed to achieving the objective:

And I think... when I think about how, how I know [how] a team experience is successful, I think it's ... important that everyone feels as though they [met the goal] whatever that goal was... like, the objective was successful, but the experience was somehow positive, whether that is... I think, that developing relationships and, um, you know, trust, or whether it was growth or learning. But I see there kind of being those two pieces as meeting the objective, and then having some kind of connection or growth that came from the process of working toward the goal.

Participants used words such as “product”, “goal”, and “task” to identify the outcome of teamwork. In three instances, separate participants described a successful team process as “flow”, suggesting that a successful process was smooth, without interruption, and synergistic.

**Communicating.**

When asked for characteristics of successful teams at RRU, Kimberly, a student, put it simply and clearly, “Communication, communication, communication.” The challenge for students, according to Carrie, a BAPC staff, was in finding a “collaborative way to get together and being able to resolve issues within a group, talk to each other, be open, have a conversation that’s quite frank and honest, and not be afraid to do that.” The result of being able to “have a conversation that’s quite frank and honest” was success. The connection between communication and team success was repeated multiple times across all interview groups.

Organizational participants also suggested that successful teams needed a communal space for communicating and tracking information, highlighting once again the relationship between social and knowledge processes. Face-to-face teams generally take care of this informally through face-to-face meetings; online teams are encouraged to use the LMS, although, as was
discussed above, this can raise challenges for teams. Regardless, organizational participants felt
that teams were more successful when “[they] had a shared space where information was tracked
and checked.” As Alex, a support services staff, suggested, the shared space provided
transparency and accountability for team members, critical elements of respect, which was
another sub-theme under the dimensions of success.

Celebrating success.

Organizational participants suggested that celebrating was another element of successful
social processes. Celebrating in this context was used in at least two distinct ways. In the first
meaning, Bethanne, a support services staff, used celebrating to suggest a public demonstration
of respect for teamwork. “So we celebrated the diversity as a part of the team building.”
Secondly, David, another support services staff, used celebration to describe a ritual, a
communal recognition for completing a task. “The way we knew it was successful was, we
watched the movie and had popcorn.” In these ways, celebration was a social process within
teams and an attitude toward teamwork. In each of these meanings, celebrating was a reminder
of the joy that can be found in working with others, even in the face of adversity. Both groups of
organizational participants discussed celebrating as key characteristic of successful teams, but
only support services staff identified respect as another key social process.

Respecting others.

Respecting others was a recurring theme in the data from the support services interviews.
In its general use, participants were clear that respect is an attitude or feeling that motivates
individuals to act in a way that acknowledges and values others. Piper illustrated this point:
“Teamwork doesn’t necessarily always have to flow and appear to flow to be complementary. It
could be very chaotic, but as long as, within that chaos, there’s respect.” Respect places
legitimate claims on our conduct and our thoughts toward others, and serves to moderate conflict and encourage cooperation. Respecting others was repeatedly acknowledged as a key social process that helped maintain successful social relationships, even in adversity and when adjusting to constraints. Also, throughout the discussions on teams and team success, participants connected success to two knowledge processes: learning, and reflecting.

**Learning.**

Over 50 percent of participants used learning to describe something that teams did. Participants noted that the term learning is used in different ways. Learning was used to describe a process of acquiring skills, knowledge, and experience about teamwork itself, rather than learning about the content associated with the subject of the course within which the team was working. This orientation to learning may be because of the focus of my questions, rather than any intrinsic distinction between learning about teamwork, and learning about a subject through teamwork. Regardless, participants acknowledged that learning was as a process associated with team success.

Kristi explicitly connected knowledge processes to team learning and the design of the learning environment.

I've always wondered if the grades didn't have to count till a bit of the learning was done, right. So maybe the, the... there's teamwork that has to [be] done that's very small grades, and then by the... like, there's some final big project that that's your big team grade. Because I know at the first two semesters, especially, it's all about the grades, "I've got to get this grade because I have to pass this class to take the next class, and my entire future is going to implode if I don't take all of these classes together." And there's so much pressure around the grades. But by about the third semester, people know, "Okay, now I got it, I've
done... I've got the foundations [to succeed at teamwork]." And I don't know if that's possible, but I often wonder.

In her view, learning was an integral part of success because it allowed team members to develop knowledge and skills required for achieving outcomes. She was also clear in her view that the pressure of grades interfered with learning about teamwork. Learning in teams was a recurring theme in the data across all participant groups.

**Reflecting.**

Reflecting was the second knowledge process discussed. It was viewed as a process that could help teams overcome weaknesses in social processes and learning. Bethanne suggested that program and assignment design (“learning outcomes and assessment activities”), time constraints (“march through time…””) could be overcome by talking about social processes (“behavioural-related things”) and using knowledge processes (“self- reflection, group reflection”) to “shrink the timelines of what it takes to get assignments done because we would have overcome some of [the messiness in teamwork].” John reinforced the importance of group reflection in team success when narrating an example of team success. “They’re aware of the nature of their own interactions, they’re constantly reflecting on what they’re doing in the team instead of just trying to get to the end point.”

All participant groups strongly suggested that outcomes and social and knowledge processes were valid dimensions for assessing team success. These dimensions sometimes worked against each other, as Kristi and Bethanne suggested when they pointed to the challenges student teams face when balancing the immediate measure of grades based on an assessment of the outcome against the inferred measures of social and knowledge processes. Participants offered three distinct dimensions for team success: outcomes, social processes, and knowledge
processes. Furthermore, the discussions suggested that all three be honoured in the design of teamwork.

**Study Conclusions**

Reflecting on the themes from my analysis of the data, I reached three overarching conclusions about teamwork in the BAPC program.

1. Stakeholders explained student team success in terms of interdependence and resilience (attributes), outcomes, social processes, and knowledge processes.
2. Successful student teams developed cooperative social and knowledge processes to achieve their goals.
3. Success on student teams could be strengthened through professional development for staff and designing for learning about teamwork.

These conclusions at least partially answer my two research questions: how can the CCC better understand how stakeholders define ‘success’ in student teams and subsequently improve its ability to provide support to these learning teams? In support of this question, I asked the following sub question: what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU. I discuss my conclusions below.

**Characteristics and processes of successful student teams.**

Team success, as defined by the participants, was described with references to specific characteristics (interdependence, resilience), social processes (communicating, celebrating, respecting), and knowledge processes (learning, reflecting). Successful teams communicated honestly and openly, positively integrated the diversity of skills and knowledge of its members, and celebrated their work and their successes. They were also resilient in the face of hurdles, which allowed team members to adapt to changes. Finally, resilience was strengthened through
mutual respect. Johnson and Johnson (1999) suggested that cooperative experiences promoted greater interpersonal relationships, marked by friendships between students, and psychological health, characterized by an increase in an individual’s “resilience and ability to cope with adversity and stress” (p. 72-73). My findings also supported Salas et al.’s (2005) discovery that successful teams exhibited a team orientation and adaptability to their work, which they supported in part through closed loop communication. The findings on celebration, positive interdependence, communication, respect, and resilience all support these findings in the literature.

My findings also suggested that cultural diversity might be a barrier to interdependence, and social and knowledge processes. The literature suggests at least two mechanisms of interference. The first was challenges in ongoing communication, and the second was lack of shared mental models (Salas et al., 2008). At RRU, culturally diverse students share English as a common language. For many of these students, English is an additional language. Ongoing and meaningful communication on teams is more difficult when members have different levels of English language proficiency. My findings did not reveal whether perceived barriers relate purely to language skills.

Others’ research supported my conclusion that positive interdependence and psychological resilience is associated with team success (Bedwell et al., 2012; Johnson & Johnson, 1999; Salas et al., 2005, Salas et al., 2008). The literature also supported my conclusion that cultural diversity can impact team success (Staples & Zhao, 2006; Stahl et al., 2010; Zeitun et al., 2013). This literature also suggested that the quality of that impact appeared to depend on the how specific cultural mental models influence social and knowledge processes.
Social and knowledge processes support team success.

Cooperation could be understood as the “propensity to consider other’s behaviour when interacting in a group and the belief in the importance of the team’s goals over individual goals” (Bedwell et al., 2012, p. 136). This view was supported by the characteristic of positive interdependence and the group orientation suggested by social processes (celebrating, respecting, communicating). Coordination was the interaction between team members to allocate, synchronize, and integrate skills and resources to complete tasks on time (Bedwell et al., 2012). Coordination was evident in the data on diversity of skills and knowledge and the ability of the team to positively integrate these skills and knowledge through effective and ongoing communication and knowledge processes. A successful student team can “work together to accomplish shared goals” (Johnson & Johnson, 1999, p. 68), and “seek outcomes beneficial to all” (p. 68) so that the “group is more than the sum of its parts” (p. 68).

Conversely, cultural diversity was suspected of interfering with coordination, perhaps because of communication challenges posed by team members with English as a second language. Bedwell et al. (2012) suggested that true teamwork is an instantiation of collaboration, which was distinct from coordination in that the team not only reciprocally engaged in joint activities, but also shared a mental model of the tasks, equipment, processes, and context. In this last category, the data were weak. From this I concluded that participants understood successful teamwork in terms of cooperation and coordination, but not necessarily collaboration, at least not in the sense suggested by Bedwell et al.

This understanding of teamwork corresponded with the meaning of cooperation used by Johnson and Johnson (1999) when they distinguished between a cooperative learning group and a high-performance cooperative learning group. A high-performance cooperative learning group
correlated with how Bedwell et al. (2012) defined collaboration, which was understood by both
groups of researchers to be beyond the reach of most groups. I did not take this to mean that
student teams at RRU were not capable of collaborating, but that cooperation was a sufficient
condition for team success in the context of RRU. Cooperation, as it was defined in the literature,
required that teams not only coordinate their activities but also harness their shared capacities in
such a way that they were able to achieve goals beyond the capacity of any one member.

Data from the participant focus groups and survey showed that successful teams achieved
their goals, and managed social and knowledge processes well. The literature supported some of
these findings by highlighting that success on a team can be measured across at least two
distinct, but related, dimensions: outcome improvement (performance), and group process
(satisfaction) (Edmondson et al., 2007; Salas et al., 2005; Salas et al., 2008). The third dimension
of team success suggested in my literature review, team efficiency, was not clearly connected to
team success in my research. Research participants suggested that student teams pursued
efficiency in response to constraints in the learning environment, but at the expense of successful
knowledge processes. The implication was that team efficiency, at least in the early stages of
team development, may contribute to achieving goals but at the expense of knowledge processes,
and thus it undermines team success.

In my literature review, I explored the relationship between team performance and being
satisfied with processes (Li & Cropanzano, & Bagger, 2013; Salas et al., 2008). My data analysis
supported these dimensions of team success; it also further categorized processes into social and
knowledge processes. Participants identified communicating, celebrating, and respecting as the
social processes most closely associated with team success. Participants identified learning and
reflecting as the knowledge processes most closely associated with team success.
I concluded that successful teams exhibit two characteristics: interdependence and, resilience. Cultural diversity is a third team characteristic that can interfere with team success but can also be used to the advantage of teams. Successful social and knowledge processes can allow teams to harness positive characteristics and adapt to challenges. Based on this understanding, I argued that stakeholders defined student team success in terms of a team’s ability to achieve its goals cooperating on social and knowledge processes. The participants suggested that the cooperative combination of processes was synergistic, and that as result, successful teams could accomplish more together than they could apart.

**Professional development and design can strengthen team success.**

Teamwork is a learning outcome at RRU (Royal Roads, 2013a), so presumably there is an institutional understanding that teams need to learn how to succeed. However, participants also revealed that learning about teamwork was ad hoc and occurred at the same time student teams were expected to learn and apply course-specific information. In particular, participants suggested that teamwork at the start of a program should focus on foundational teamwork skills and knowledge; by the end of a program, they implied that teamwork could focus on applying skills and knowledge. This progressive approach to learning is sometimes referred to as scaffolding.

Activity theory (AT) (Bleakley, 2014; Engëstrom, 1999; Jonassen & Rohrer-Murphey, 1999) provided a useful and descriptive framework for understanding the components of scaffolded learning (e.g., appropriate technology, meaningful assignments, clearly articulated outcomes, and well trained and supported students, staff, and faculty). The particular value of AT in this discussion was 1) the distinction between the artefact (e.g., essay, presentation, video) of teamwork and the outcome (learning), and 2) the recognition that the design of the formal and
informal structures within which teams operate (e.g., technology, community, culture, rules, divisions of labour) shapes success as much as cognitive, affective, and psychomotor characteristics (e.g., behaviours, attributes, processes, personalities, capacities).

At RRU, as in other learning institutions, the purpose of an assignment is not the assignment itself but the learning it represents. Participants were clear that technology, assignments, and other variables had an impact on team success, which seems to support AT’s descriptive analysis. RRU staff and faculty can develop durable knowledge, practices, and activities that can transcend the immediacy of an assignment, the seasonality of faculty contracts, the turnover in student cohorts, and the variability in the skills, knowledge, and motivations of individual students. The participants suggested that this durable content be based on professional practices such as professional development and on existing examples of success drawn from the RRU teaching community.

I concluded that the CCC could support student success by supporting the development of scaffolded learning. Furthermore, the CCC could support student success by strengthening the practices of staff and faculty. These practices could be strengthened by episodic and ongoing professional development. I expand on these conclusions in my discussion in Chapter 5.

Reflecting on the Findings from My Primary ARE Cycle

In this section, I present alternative perspectives on my findings that emerged from reflecting on my primary research cycle. In my primary research cycle, I refined the focus of my investigation and attempted to understand “the ways in which primary stakeholders experience and interpret emerging issues” (Stringer, 2014, p. 147). Once I completed my primary cycle, I went back through the data and my findings. My motivation was to “develop a coherent and
grounded” (Bentz & Shapiro, 1998, p. 4) approach toward my own research. I believe this was necessary because of my ongoing, active participation in teamwork at RRU.

I was immersed in this research project as both researcher and practitioner. I occupy a central position within the system in which my inquiry took place. My participation in, and intellectual awareness of, student teamwork at RRU are woven into my methodology and methods. As a consequence, I am sensitive to interpretive biases influencing my analysis, findings, and recommendations (Bentz & Shapiro, 1998; Jones et al., 2014). In part, I attempted to address some potential concerns about bias by being transparent in my conduct by being truthful and authentic in my conduct and reporting. I highlighted differences and similarities between participant groups, and provided descriptive statistics to support the strength and/or weaknesses in the data for my final categories and themes.

Once I completed my data analysis, I also took a step back from my themed data and looked back over the survey and transcripts looking for disconfirming data. Furthermore, I also considered data that I excluded from my final themes and categories. I reviewed all data, and paid particular attention to the data from the student participants because I believe my inherent biases privilege the views of organizational participants, and because students bear the weight of my recommendations. This was part of my “mindful inquiry” (Bentz & Shapiro, 1998).

By considering alternative perspectives from my data, I aspired to develop my self-awareness as an inquirer (Bentz & Shapiro, 1998). In my reflections, I identified at least four potential alternative perspectives: validating culture as concept; privileging two distinct processes in my conception of team success; questioning the absence of leadership in my data; and subsuming justice within positive interdependence. I extended my reflections in a secondary
research cycle by building upon and extending information drawn from my primary research cycle. These extensions are included in the “Discussions” section in the next chapter.

Validating culture as concept.

Organizational participants talked about the potential impact of culture on team success, but their concerns were generalized. The only specific concern mentioned in the data in relation to cultural diversity was English language proficiency, because the more “people for whom English is a second language, the more you have the potential to damage the great outcomes of people in group”. I chose to aggregate this comment with more general comments on cultural diversity, but it did raise a concern. Was cultural diversity simply shorthand for specific, non-cultural capabilities such as English? My concern was strengthened when I considered the value of culture as a construct. While the term is widely used across a number of fields (Sewell, 2005), there is still debate about its utility as an analytical category. Critical anthropologists “claim that both in academia and in public discourse, talk about culture tends to essentialize, exoticize, and stereotype those whose ways of life are being described and to naturalize their differences from white middle-class Euro-Americans” (Sewell, 2005, p. 78). Culture focuses on groups of people and ignores the range and variability of abilities between individuals. If participants were using cultural diversity as a shorthand for a deficiency in English language, then reifying culture as a theme in the data could obscure other factors that affect team success. For example, if the issue was English language proficiency, then perhaps the real challenge was in communicating, not a conflict between races, ethnicities, or nationalities.

Privileging a dual track process for team success.

In my final analysis, I grouped outcomes, social processes, and knowledge processes together, and themed them as dimensions of team success. In my analysis, I also suggested that
the data supported a close association between social and knowledge processes. I felt that this reflected one of the underlying purposes of student teams at the university, which is to facilitate learning. But Kristi clearly separated knowledge process (learning) from social process (celebrating), and even went so far as to suggest that in some cases “there’s ‘no product’” from teamwork. In reviewing Kristi’s comments, I was reminded that I might have a bias toward a dual-track understanding of team processes (social, knowledge).

**Questioning the absence of leadership.**

Notably absent from the data was any direct discussion about the role of leadership, which Salas et al. (2005) highlighted as a critical process of successful team. There was only one overt conversation about leadership, from the student support services focus group:

> For distributed leadership to work […] everybody has to be skilful, right. And you have to be able to pull your own weight, you have to be knowledgeable, you have to… you know, be able to get the job done. And so that’s not necessarily going to be the case in every team.

One interpretation of this statement suggested that leadership was elusive on student teams because the necessary skills and knowledge had yet to be learned. In this view, at least at the beginning of the team learning process, leadership was not a characteristic of success, but once everyone becomes “skilful” and “knowledgeable,” it can emerge. But, leadership may be a characteristic of teams in the latter stages of development.

There is some support for this in the literature. Student teams are self-managed and have no designated leader. Student teams also have flexibility in setting and achieving goals, and in directing their internal processes, but this gives rise to issues of coordination and decision-making, traditional functions of leadership (Carte, Chidambaram, and Becker, 2006). The
literature on leadership suggested that, in this context, distributed (shared, emergent) leadership would be more effective than other forms of leadership at maintaining the character and value of a self-managed group. Distributed leadership can be defined “as an emergent team property that results from the distribution of leadership influence across multiple team members (Carson, Tesluk, and Marrone, 2007, p. 1218). In this definition, leadership was understood to be a characteristic of the team. But it was also understood to be a process (leading). For example, Pearce and Conger (2007) define distributed leadership as “a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both” (p.1). Regardless of whether distributed leadership was understood as a process or as a product, the above quote suggested that distributed leadership was something that happened after the acquisition of skills and knowledge. Pearce and Conger’s (2007) research supported the notion that distributed leadership develops over time on a team, but their research suggested that knowledge processes were not the interactions upon which leadership emerged, but rather social processes (shared purpose, social support, voice).

In reviewing the literature on shared leadership, it occurred to me that shared leadership overlapped with the concepts of cooperation and collaboration (Bedwell et al., 2012; Johnson & Johnson, 1999) discussed earlier. When I considered what “interactive influence processes” (Pearce & Conger, 2007, p.1) might be, I arrived back at social (communicating, respecting, celebrating) and knowledge processes (learning, reflecting). At the end of my reflection, I accepted that the concept of shared leadership may have been present in the data, albeit in a different framework (cooperation and its associated processes). I also decided that embedding leadership within social and knowledge processes was more productive than separating it, in part
because I believe leadership is an essentially contested concept (Grint, 2005), and in part because I believed focusing on processes would ultimately be more useful in the context of supporting student team success.

**Subsuming justice within positive interdependence.**

It was justice, above all other concepts, which initially motivated me to pursue research related to the success of student teams. In my work as a team coach at RRU, I consistently engage with student teams around issues of justice in teamwork. In my experience, conflicts within teams often emerge from differing perceptions about fairness in assessing team contributions and equality in the distribution of work. These conflicts seemed to undermine team success.

It was with some surprise that I originally only found one direct reference to justice in the data, when Angus said, “It was not successful because not everyone put in an equal effort.” As part of my reflective practice, I returned to my early notes, and I was reminded of this original conceptual motivation, so, I was motivated to go back through the data. In this post-findings reflection, I did see other statements that supported the concept of justice. For example, when asked about strategies to support team success, Tom offered this advice: “I try to communicate, encourage, and once in a while give a virtual slap.” Kimberly provided a gentler strategy by contributing “as much or more as I expect others to contribute.” A “virtual slap” and “contributing as much or more” are strategies for reinforcing a just team environment. There were other references in the data as well. My In Vivo coding didn’t push these references near the surface, and as I moved to descriptive and categorical coding, I now realize I overlooked the few clear references to justice, and subsumed others within the team attribute of positive interdependence. As a result, the category of justice remained below the surface of my findings.
Johnson and Johnson (1999) suggested that “structuring situations cooperatively results in students interacting in ways that promote each other’s success, structuring situations competitively results in students interacting in ways that oppose each other’s success” (p. 72). One implication of this understanding of cooperative learning was that justice (fairness and equality) was potentially embedded in the concept of cooperation. Johnson and Johnson (1999) understood positive interdependence to be the outcome of cooperative learning. Based on this model of cooperative learning, I would have themed justice as a characteristic of successful teams. I went back through the data and recalculated my descriptive statistics for the characteristics of a successful team (Table 11). The results didn’t affect the strength of my findings for positive interdependence, but justice was another characteristic of successful teams suggested by just under a third of participants, and mentioned by all three participant groups.

Table 11

*Perceived Characteristics of a Successful Team*

<table>
<thead>
<tr>
<th></th>
<th>Support Service Staff n=6</th>
<th>BAPC Staff and Faculty n=3</th>
<th>BAPC Students n=10</th>
<th>Total Responses n=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Positive interdependence</td>
<td>6</td>
<td>100%</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>Justice</td>
<td>1</td>
<td>17%</td>
<td>2</td>
<td>67%</td>
</tr>
<tr>
<td>Psychological resilience</td>
<td>4</td>
<td>67%</td>
<td>2</td>
<td>67%</td>
</tr>
</tbody>
</table>

These alternative perspectives both limit and deepen my understanding of team success. For example, the contested concept of culture, and my use of culture as a theme limit its explanatory value, while belatedly finding justice deepens my understanding of the
characteristics of successful team. I presented these alternative perspectives as part of my “appreciation of the complexity, intricacy, structure and … beauty of reality (Bentz & Shapiro, 1998, p. 68) of doing ARE.

Scope and Limitations of Inquiry

My project was limited in scope by the design choice to focus on the BAPC. The BAPC shares some characteristics with other programs at RRU, but it is also distinct in important ways. For example, the BAPC is an undergraduate programme at an institution dominated by Masters level programs. The demographics of the two cohorts included in my study are similar to some other undergraduate programmes in most respects. But the BAPC cohorts do not reflect the growing cultural diversity at RRU in many other undergraduate programs. In recognition of the limited scope of my research, I did include professionals and administrators from CTET and Student Services in an attempt to gain some perspective from the wider institution. In my data analysis I made an effort to triangulate themes between the narrower views of the BAPC and the wider perspective of CTET and Student Services.

Furthermore, the views of BAPC faculty and BAPC administrators may not be aligned because of their distinct and discrete organizational roles. By combining these groups and aggregating their data I may have suppressed important and distinct findings. These two groups work closely together, in a collaborative environment, which mitigates against this concern. Furthermore, because of the small number of RRU faculty, administrators, and professionals working in close and regular proximity, I had concerns about protecting privacy and anonymity in the data. I decided prioritize anonymity in the data at the expense of distinguishing the views of administrators from faculty. This is a limitation of my research method.
ARE methodology carries its own limitations. ARE occurs in a natural setting and the results are nearly impossible to replicate. Data analysis in ARE is dependent on the imagination, cognitive dexterity, and intuition of the researcher. It is likely that another researcher would interpret the data differently or draw different conclusions. Instead, my research must be judged on its authenticity and truthfulness, which are further limits to its applicability to other programs at RRU, and other institutions.

I adopted an appreciative stance inside my methodology by way of trying to balance positive and negative perspectives that might surface through the research process. Furthermore, I tried to present multiple perspectives on my themes. By using an appreciative stance, I have tried to provide detailed and varied perspectives on team success and aimed to project a wide range of authentic voices into my analysis.

Nevertheless, my project was further limited by low participation of BAPC faculty and students. As a result, the pool of data from which I conducted my analysis and drew my conclusions does not necessarily reflect the views of other BAPC students and faculty. The net result of these limitations is to restrict the applicability of the study findings to other programs at RRU. My conclusions are most relevant to BAPC program; in other contexts, my conclusions and recommendations must be tested and reinterpreted. Readers are cautioned that the conclusions are not generalizable beyond the scope and limitations of the study.

Chapter Summary

In this chapter, I presented my findings. I reached three conclusions framed around my two research questions. In reflecting on my findings, I made new connections and discoveries. In my final chapter, I discuss these connections and discoveries and then pull my findings, conclusions,
and discussions together into my final recommendations. I wrap up my final chapter with an overview of the organizational implications of my research and recommendations.
Chapter 5: Inquiry Project Recommendations and Implications

This chapter begins with a discussion based on insights gained during my analysis. These insights will be explored through the lens of previously reviewed and new literature. Through this discussion, I aim to provide additional insights and perspectives on my main research question: how can the CCC better understand how stakeholders define ‘success’ in student teams and subsequently improve its ability to provide support to these learning teams? In support of this question, I asked the following sub question: Through the discussion, I also aim to add to my understanding of my sub question: what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU? After this discussion, I present my five recommendations. These recommendations are presented in relation to my study findings and discussion. In the next sections of the chapter, I explore the organizational implications of these recommendations and the implications for future inquiry. In the final section of this chapter, I finish the story of this inquiry project by describing what key stakeholders intend for next steps in this organizational change project and describe my future role with this project after the publication of my report.

Discussion

I decided to separate my original literature review from a second phase directed by insights and reflections that came out of my analysis. By separating my original literature review from this discussion, I wanted to illustrate two key phases of my research process. The first phase was deductive. I developed my research questions and my interview and survey questions from my initial review of the literature. At that time, I also deliberately held space in my research for new insights and directions that might emerge from my analysis and findings. The second phase was inductive, and took place after my first iteration analyzing the data from my interviews. My first
iteration of analysis described and categorized data based on the language and insights of the participants rather than on the models and concepts of my initial literature review. In my final iteration of analysis, I integrated models and concepts from my initial literature review with new insights, models, and concepts that emerged from my analysis. This integration is presented in this discussion. By separating my initial literature review from this later discussion, I am honouring and sharing the phases of my analysis with the reader.

Coming at my research deductively then inductively allowed me to honour and share the iterative and cyclical character of ARE (Coghlan & Brannick, 2010; Rowe, Graf, Agger-Guppta, Piggot-Irvine, & Harris, 2013). By separating these two cycles in my thesis, I was also able to capture and share some of the meta-learning inherent in an ARE project undertaken for academic accreditation (Coghlan & Brannick, 2010). One research cycle focussed on “constructing, planning, taking action, and evaluating in relation to the achievement of [my] project’s aims” (Coghlan & Brannick, 2010, p. 11). A second research cycle reflected on the first cycle. In Chapter 4, I wrote about insights gained through reflecting on my analysis and findings. In this discussion, I write about insights gained from considering my findings and conclusions within the context of insights and observations drawn from my findings. By separating these two sections, I aimed to demonstrate and share my reflections on the content, process, and premise of my meta-learning cycle (Coghlan & Brannick, 2010; Mezirow, 1999).

As I reviewed my findings and reflected on my conclusions, five topics surfaced to push my thinking in new directions. These topics might suggest new avenues of research, but first and foremost, they express novel connections between elements in my findings. In some cases, the topics were an extension of literature I reviewed previously, but applied in new ways. In other cases, the topics required exploring new literature. Unlike my conclusions, this section is not
based on my initial literature review. Rather, this discussion extends my original findings by connecting data and adding new information with the aim of “achieving a more holistic analysis” (Stringer, 2014, p. 147). The insights are in five main areas:

- Supporting the emergence of a CoP around teamwork;
- Connecting elements of CoP and dimensions of team success;
- Weaving social and knowledge processes together to explain team success;
- Using reflexivity as a corrective for weaknesses in social and knowledge processes;
- Using complexity to develop successful teams.

**Supporting the emergence of a CoP around teamwork.**

In my introduction and original literature review, I suggested that we could frame student teamwork within a nascent teamwork CoP. This had the analytical benefit of connecting a range of actors (students, faculty, staff, counsellors, coaches) through their practices (policies, procedures, tools, activities) within a domain of knowledge (teamwork), but I did not push the construct further. Concepts connected to CoP surfaced again in my findings. On reflection, I believe there was sufficient evidence in the data to support two extensions of the concept of a CoP. The first extension was in suggesting that strengthening the nascent teamwork CoP could support team success. The second extension was in applying the CoP framework to student teams themselves. I discuss the second extension in the next section.

My findings suggested that there was a lack of consensus among participants about successful practices associated with student teams, and even whether a domain of knowledge about teamwork existed at the university. The implication was that a formal and effective teamwork CoP did not exist (Gourlay, 1999), but given the prominence of teamwork in the RRU LTM, the general interest in teamwork across the university and the addition of the CCC, I
believe the potential for a CoP exists and that developing the CoP could strengthen student team success.

Participants pointed in this direction when they suggested developing specific practices (designing for learning about teamwork, differentiated team assignments, unique tools) to support student teams. The findings also illustrated that participants based their suggestions on the understanding that teamwork was somehow different from other student experiences. Some participants also stated that faculty and staff required specialized knowledge (domain of knowledge) in teamwork to work effectively with student teams. The suggestion was that staff, faculty, students, and others (community) could do things (practices) differently, and better support the success of student teams. The three participant groups in my research are an instantiation of this community, bound together in their support of student teams. Their professional practices are a representation of the “specific knowledge the community develops, shares, and maintains” (Wenger et al., 2002, p. 28). Toward that end, I concluded that practices such as designed learning and professional development could foster the further development of a teamwork CoP.

Designing practices for a nascent CoP offered the potential to build consensus (Kimble, Hildreth, & Bourdon, 2008) about the limits and potential of teamwork at RRU (defining the domain), to connect members (connecting the community) so that they can “learn together, build relationships, and in the process develop a sense of belonging and mutual commitment” (Wenger et al, 2002, p. 34). In this wider understanding of team success, the nascent CoP spanned the boundaries of formal institutional units (CTET, CCC, BAPC, Student Services). But I advocate against the university leadership formally constituting the CoP. Instead, I suggest it is better to “coach and nurture a group and provide the right environment so it can be helped to develop into
a CoP” (Kimble et al., 2008, p. xii) based on the relationships and internal motivations of its members. In this way, the CoP could both produce and consume its own knowledge and have a durability and adaptability based on the needs and desires of those in the community.

Wenger (1999) emphasized that communities cohered around practices. He identified three dimensions by which practice was a source of coherence for a community: mutual engagement, joint enterprise, and a shared repertoire (Wenger, 1999). Participants discussed elements of this framework in the interviews including shared tools, artefacts, and concepts, doing things together, and community maintenance. This shows support for elements of a teamwork CoP that are already a source of coherence for some members of the university community.

**Connecting elements of CoP to dimensions of team success.**

In my original literature review, I centred the CoP around staff and faculty, so it was with some surprise that I found parallels between the elements of a CoP and dimensions of team success. In my original conceptualization, I considered students as consumers of the knowledge of the teamwork CoP; based on the findings, I now also argue that student teams can be conceptualized as a hybrid team/CoP. Student teams can also be producers and consumers of domain knowledge. At one point in an interview, David, a staff member, actually suggested as much when suggesting that it would be “lovely for those [student teams] to be teaching the faculty ultimately, to be modeling” teamwork for the faculty. To me, this implied that David believed student teams had a domain of knowledge and practices that they could share with the university.

There was also a connection between the foundational CoP constructs (domain, community, practice), and the domains of team success (outcomes, social processes, knowledge
The basic elements of a CoP encompass a “domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practices that they are developing to be effective in their domain” (Wenger et al., 2002, p. 28).

<table>
<thead>
<tr>
<th>CoP Construct</th>
<th>Dimension of Team Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain of knowledge</td>
<td>Outcome</td>
</tr>
<tr>
<td>Community of people</td>
<td>Social processes</td>
</tr>
<tr>
<td>Shared practices</td>
<td>Knowledge processes</td>
</tr>
</tbody>
</table>

This three-part structure was present in the dimensions of team success. The domain of knowledge correlated with the outcome of teamwork. The outcome was defined by the knowledge content of a course, which “defines a set of issues” that the team must work with. The outcome (the artefact created by the team) “legitimizes the community by affirming its purpose and value to members and other stakeholders” (Wenger et al, 2002, p. 28). The community correlates with the team itself and was defined by its social processes. According to Wenger et al., “A community fosters interactions and relationships based on mutual respect and trust. It encourages a willingness to share ideas, expose one’s ignorance, ask difficult questions” (p. 28). Finally, practice correlates with knowledge processes (learning, reflecting): “The practice is the specific knowledge the community develops, shares, and maintains” (p. 29). A student team at RRU can be described as a small, short-lived, and institutionalized CoP (pp. 24-28). This unexpected mapping between dimensions of team success and CoP structures means that successful BAPC teams can be described both as teams and as short-lived communities of practice.
There are clear connections between community and the understanding of teams expressed within the research, and in my literature review, including Johnson and Johnson’s (1999) concept of a cooperative learning group, social processes (communicating, respecting), and characteristics of a successful team (interdependence). The connection between the dimensions of team success and CoP supports the notion that learning is a social activity, and that CoP might be a useful construct for understanding and supporting learning within student teams. Finding elements of a CoP at the heart of the definition of student success reminded me that students are active participants in their own learning, and that any effort to support student success through nurturing a teamwork CoP should acknowledge the centrality and agency of the students themselves. One implication of this insight is that the social learning elements of student teams seem to be closely related to the theory of social learning at the heart of CoP. Wenger’s (1999) social theory of learning prefers to a process “of being active participants in the practices of social communities and constructing identities in relation to these communities” (p. 4). In considering student teams as a hybrid CoP/team, I updated my map (Table 13) between CoP and teamwork to reflect this understanding.

Table 13

<table>
<thead>
<tr>
<th>Student Team Learning</th>
<th>CoP Learning Construct (Wenger, 1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course/Program Content</td>
<td>Learning as experience (Meaning)</td>
</tr>
<tr>
<td>Student Teams/Cohorts</td>
<td>Learning as Belonging (Community)</td>
</tr>
<tr>
<td>Social Processes</td>
<td>Learning as Becoming (Identity)</td>
</tr>
<tr>
<td>Knowledge Processes</td>
<td>Learning as Doing (Practice)</td>
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</table>
In this analysis, learning for team members is active participation (meaning) in the practices (doing) of their team (belonging) and the construction of an identity (becoming) in relation to their team (Wenger, 1998). I believe this supports my finding that success with social processes is as important as success with knowledge processes in teamwork. One implication of this understanding is that BAPC should develop assessment criteria for teamwork that includes social and knowledge processes.

With this revised perspective on teamwork, I returned to the three dimensions of team success, and in particular the dimensions of knowledge processes and social processes. I wanted to understand in greater detail the potential interplay between these processes/practices, and how they supported team success. In my original literature review, I briefly looked at knowledge processes in the context of organizational learning (Edmonson, 2012). Based on the connection between social and knowledge processes and team success, I returned to the subject of processes in teamwork, and in particular, the possibility of developing practices to support both the knowledge and social processes of student teams.

**Weaving social and knowledge processes together.**

My findings showed that all three groups of participants recognized the explicit connection between processes and team success; I wondered if/how social and knowledge processes interact with each other. Organizational participants argued for a developmental model of learning about teamwork starting with social processes, and then moving on to the knowledge processes and outcomes. But several participants also narrated stories of success where social and knowledge processes were combined. Piper offered this example:

I think that it was an extremely successful team. At the end of the day, we did come up with the interface [outcome] that we were going to use, but I think that the heated
discussions [social process] were great for us because, you know, we were able to … hear the other side [social process] and really critically think about our arguments [knowledge process]. And so we came out of there, I think, understanding better what we were trying to say in the first place, and also understanding the other person’s point of view [knowledge process].

The data and the CoP literature suggested that social and knowledge processes might not be hierarchical, but instead worked together.

Carsten De Dreu, Bernard Nijstad, and Daan van Knippenberg (2008) characterized group information processing as a dual track process that combines social and epistemic motivations. Their model postulated that at the group level, information dissemination, integration, and generation were functions of the interaction between social motivation and knowledge motivation. I believe this supports, albeit in a circular way, the evidence in my findings that social and knowledge processes can facilitate team success. Motives influence behaviour. In considering the connection between the work of De Dreu et al. (2008) and my findings, I took social and knowledge motivations to be cognitive anchors that informed behaviours associated with social processes (communicating, celebrating, respecting), and knowledge processes (learning, reflecting).

For example, a number of research participants commented on the negative impact of time constraints on team success. The constraint of time requires student teams to prioritize motivations (e.g., successful outcome vs. social cohesion and learning). De Dreu et al. (2008) argued that time constraints lowered epistemic motivation, and as a consequence, negatively impacted group decision-making (a knowledge process). De Dreu et al. emphasized that the effects of social and epistemic motivations on the quality of group judgements and decisions
depended “critically on task demands” (p. 40), and in particular, decision urgency, and member input indispensability. They also conclude that group-oriented social behaviours can help groups overcome constraints because this orientation “tends to foster task cohesion and smooth coordination” (p. 26). Their conclusion that social and knowledge processes reinforce each other was also evident in my findings; several participants talked about positive interdependence overcoming constraints and supporting knowledge processes. This suggested that learning is embedded in a social context (Engstrom, 2009; Wenger, 1998), and further supports the argument that elements of CoP may be useful in understanding and supporting student team success.

Organizational participants argued that learning about teamwork should start with “soft skills” (social processes), and then move on to the “heavy lifting” (knowledge processes). The findings of De Dreu, et al. (2008) and some of my own findings suggested that this differential developmental model might not be as effective in supporting team success. Rather, successful teams concurrently combines social and knowledge practices. Learning about teamwork is, in part, learning about how to balance social and knowledge practices. One implication of this insight was that any progression of learning about teamwork should include concurrent opportunities to develop and integrate social and knowledge practices.

**Using reflexivity as a corrective.**

My findings suggested that reflexivity was a knowledge practice associated with successful teams. In this context, I understand reflexivity to mean the “deliberate discussion of team goals, processes, or outcomes, so as to adapt them as needed” (Schippers, Edmondson, & West, 2014, p. 733). In my own reflections on my findings, I wondered about the role of reflexivity in a social theory of learning. I was already familiar with cognitivist (i.e., Piaget, 2013) and
motivational models of learning (i.e., Kolb, 1976) that situated reflection within the domain of the cognitive experience of an individual learner, but I was not sure about the role of reflection in a group process. I felt it was worth investigating because participants identified reflexivity as a team practice and connected it to team success.

One possible avenue of exploration opened up when I looked at the interactions of social and knowledge practices in teamwork. In the context of RRU, teams are used as a social unit for learning. As I reflected on and reviewed the literature on social and knowledge practices, it occurred to me that learning was not only something that teams did in order to be successful, but learning was a measure of success itself, and this pushed me to consider what learning on a team meant in the context of a university. Edmondson (2012) provided a tentative answer by suggesting that learning in a team was “teaming”, defined as a “dynamic activity determined by the mindset and practices of teamwork [and] involves coordinating and collaborating without the benefit of stable team structures” (p. 50). Successful teams were “able to access knowledge, develop a shared understanding of how best to apply it, and act in a coordinated manner that is reflective of new insights” (Edmonson, 2012, p. 50). In other words, teams could be interpreted as social units for processing information. De Dreu et al. (2008) supported this understanding. Their work with social and knowledge practices was framed within the view that groups were information processors. Based on this understanding of teamwork (“teaming”), I again considered the role of reflexivity. My findings suggested that reflexivity might provide a correcting mechanism to weaknesses in other practices. For example, this interchange between two BAPC participants highlights the success one instructor has with student teams when he integrates reflexivity into the team assignment:
Carrie: We have one instructor that usually nails the team assignment and he also makes them accountable for some of it. And he shows where the grades some in. And their team is also grading on themselves… So there is accountability…

John: Right, if there is a problem, he’s able to react quickly because it’s so… not only so evident in the way they work, but because they’re aware of the nature of their own interact… they’re constantly self-reflecting on what they’re doing in the team instead of just trying to get to the endpoint.

Schippers et al. (2014) drew on the earlier work of Michael West (2006) and defined team reflexivity as “the extent to which group members overtly reflect upon, and communicate about the group’s objectives, strategies (e.g. decision making) and processes (e.g. communication), and adapt them to current or anticipated circumstances” (p. 734), and conceptualized it as an “explicit information-processing activity […] that precedes adaptation and is an essential component of team learning” (p. 735). According to Schippers et al. (2014), team reflexivity encouraged high epistemic motivation, established a practice within which member input was indispensable, and supported cooperative learning by providing teams with a process for seeking mutually beneficial outcomes, for discussing, revising, and understanding material, and for checking individual and group performance (Johnson & Johnson, 1999). Based on the evidence from Schipper’s et al. and others (Boud, Keogh, & Walker, 2013; Pieterse, Van Knippenberg, & van Ginkel, 2011; Schippers, West, & Dawson, 2012), and from my own findings, I came to understand that team reflexivity could be a correcting mechanism for other team practices, and as such, I argued that it should be a core component in training and coaching teams at all levels of development.
Using complexity to develop successful teams.

Participants suggested that learning to do teamwork could begin with learning about social processes (soft skills) and then move on to knowledge processes (hard skills). This suggestion assumed that 1) social processes are fundamental to team success, 2) that teamwork can be broken down into parts, 3) that the parts can be learned separately, and 4) that the parts can be reintegrated for team success. In my discussion about knowledge and social processes, I proposed that social and knowledge processes run concurrently and should be integrated. Having raised this potential discrepancy between my findings and the literature, I considered alternative frameworks for developing successful teams.

I propose that there is a linear relationship between the ability of a team to integrate social and knowledge processes and their capacity to succeed as a team. Teams that are better able to integrate processes have a greater capacity to work as a team. One consequence of greater capacity for teamwork is the ability to take on increasingly complex tasks and activities. I prototyped an alternative model of team development based on the complexity of the teamwork. This model encourages teams to concurrently develop social and knowledge processes. Coordination is the least complex form of group interaction, cooperation is an intermediate form of group interaction, and collaboration is the most complex form of group interaction. This understanding drew heavily on the work of Bedwell et al. (2012), Johnson and Johnson (1999), and Kurtz and Snowden (2003). I summarized the relationships between these elements in Table 14. Basing a developmental model for learning about teamwork on the level of complexity of the teamwork moves away from the recommendations of some participants, but I believe that the spirit of their advice was that teamwork is complex and learning to do it well 1) takes time, 2)
requires support, and 3) builds from success. My proposed model recognizes and reflects this spirit.

Table 14

*Connecting Complexity of Teamwork to Two Typologies of Group Work*

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<td><strong>Structured</strong></td>
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<td>Classroom Group</td>
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<td>Cooperation</td>
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<td>Learning Group</td>
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<td><strong>Emergent</strong></td>
<td>Complex</td>
<td>Collaboration</td>
<td>High Functioning</td>
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Teams with limited teamwork expertise or experience should practice coordinating their teamwork and be assessed accordingly. More experienced teams should practice cooperating or even collaborating on their teamwork and be assessed accordingly. Groups can learn to work together by coordinating resources, activities, and responses to “ensure that tasks are integrated, synchronized, and completed within established temporal constraints” (Salas et al., 2000, p. 342). Coordination does not require reciprocal participation, and as result, does not produce synergistic outcomes. On the other hand, coordination also minimizes some of the negative consequences of selfish behaviour. In early development, team training could focus on skills and behaviours associated with coordination (effective communication, division of roles, schedules, logistics). Celebrating could also be introduced. As deadlines are met and tasks completed, teams could be encouraged to celebrate the completion of tasks and the meeting of deadlines. Student teams at
this level of development are dependent on, and benefit from, the regular support of faculty and staff to help them coordinate their activities.

Cooperation, as I have already described, not only requires coordination, but the active and reciprocal participation of all group members such that outcomes are beyond the capacity of individual members. Johnson and Johnson (1999) suggested that cooperation was an attitude toward group work that allowed members to overcome adversity and stay focused on group goals. This mirrors the work of De Dreu et al. (2008) on the importance of pro social motivation. In this middle phase of development (cooperation), team training can build on the capacity to coordinate team activities (knowledge practices) and focus on developing a pro social orientation and the necessary associated characteristics and behaviours (feedback, leadership, mental models, respect). Teams benefit from coaching at this stage of development. Staff and faculty can monitor, support, or even intervene as necessary to support team oriented social and knowledge processes. Earlier, I defined a successful student team as one that synergistically combines social and knowledge practices to achieve its goals. I also suggested that collaboration was beyond the reach of many student teams, but in this developmental model, the potential for collaboration exists, and I have included this phase of development in my discussion. At this stage of development, it is likely the team can function independent of support from faculty and staff, and is likely to be able to ask for help where and when needed.

At a practical level in the classroom, team assignments could be designed to align with this model of team development. Groups of students new to learning about teamwork (coordination phase) can benefit from assignments that encourage coordination rather than cooperation or collaboration. I summarize the core elements of assignments designed for complexity in Table 15. Simple assignments provide opportunities to apply clear and simple rules, roles, and
procedures, and are appropriate for 1) teams with little to no experience, and 2) activities based on best practices. Simple assignments can allow for successful coordination, a foundation for successful teamwork. Simple assignments don’t necessarily remove or eliminate constraints in the learning environment (workload, time pressures, LMS), but they do provide a clear structure within which those constraints can be managed.

Complicated assignments require analysis and some measure of expertise to understand (Kurtz & Snowden, 2003, p. 468). When designing complicated tasks, instructors should deliberately separate relationships and obscure information so students consciously seek out expertise to understand the situation. Teams that are able to cooperate are likely to have an easier time discerning the patterns because of the combined expertise of its members, and their ability to coordinate work and to communicate effectively on a shared learning goal. As a result, teams that cooperate are more likely to successfully complete complicated assignments.

Table 15

Connecting Complexity of Team Assignments to Team Development

<table>
<thead>
<tr>
<th>Complexity of the Assignment</th>
<th>Developmental Stage</th>
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<tbody>
<tr>
<td>Structured</td>
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<td></td>
<td>Coordination</td>
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<td>Complicated</td>
<td>Cooperation</td>
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<td>Complex</td>
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<td>Collaboration</td>
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Finally, complex assignments offer no simple solutions because the situation is dynamic, context dependent, and emergent (Kurtz & Snowden, 2003; Williams & Hummelbrunner, 2010). Complex assignments are out of reach of groups that rely solely on coordination, and are likely a stretch for cooperative teams, at least in the early stages of cooperation. Teams working on complex issues must learn as they go and consistently adapt as new information becomes available. This level of information processing requires reflexivity. Relationships between elements of a complex assignment are often only determined during the process, or after the fact. As a result, prediction is impossible. Still, teams that stay focused on their shared goal, adapt as the situation changes, and evolve as new information surfaces are able to probe the situation “to make the patterns or potential patterns more visible before taking action,” and stabilize “those patterns that we find desirable, by destabilizing those we do not want, and by seeding the space so that patterns we want are more likely to emerge” (Kurtz & Snowden, 2003, p. 469).

Only high functioning cooperative teams are able to sustain the pro social and high knowledge processes required to consistently and successfully respond to complex situations. In this zone, multiple constraints are inherent to the situation, and not just workload, time, and LMS. Complex teamwork is appropriate to graduate programs at RRU. The narrower and deeper focus of study in a graduate program coupled with students that have more experience, knowledge, and skills justifies using complex situations to support learning. Teams able to function well in complex environments are as likely to succeed because of the constraints as they are to succeed despite them. Elements of truly complex assignments are akin to walking on a tightrope without a safety net, some elements can be designed and some outcomes assessed through the experience, but successful teams will each find their own solutions. Teams must be
empowered to reflect on their own experiences, draw out their own lessons, and assess their own success.

This developmental model offers a simple framework for understanding and designing a progression for learning about teamwork. It also suggests general strategies for designing team assignments over their development. Assignments early in the development of a team should foster and encourage simple coordination within the team. Later in their development, teams can be assigned activities that foster and encourage cooperation, and even collaboration.

As I reflected on this newer, and deeper, understanding of the interplay between teamwork, development, and complexity, I also looked for possible frameworks to not only connect, but direct, my recommendations. In this reflection, it occurred to me that a more comprehensive developmental model was suggested in combining the tripartite framework for group work (coordination, cooperation, collaboration) described by Bedwell et al. (2012), with the complexity framework offered by Kurtz and Snowden (2003). Figure 4 lays out this comprehensive framework and highlights how elements of complexity can be integrated into each phase.
Figure 4. Tripartite developmental model for team success

This model offers a descriptive framework within which staff and faculty can design and develop teamwork, rather than a prescription for every program. It could be possible, for example, to suggest that students entering into a Masters’ level program at RRU are already able to coordinate team practices, and that cooperation is the starting point for designing team activities and assessing team success at this level. Other program faculty could assume their students have little to no experience with teamwork, and as a consequence, design activities to develop capacities aligned with coordination. Alternatively, an instructor could use the framework as a rubric for assessing teamwork. I do not intend the model to replace existing teamwork practices, but rather to provide a framework within which the teamwork community could analyze, and potentially evaluate, their teamwork practices.

In this discussion, I connected and extended some of my findings and conclusions. I suggested that supporting the nascent teamwork CoP could improve the success of student teams.
I also pointed to an alternative understanding of student teams as a hybrid CoP/Team. In this view, team processes could be conceptualized as practices, and students as active agents in their own learning within their own community. I proposed a developmental model to support students in their community of practice based on the complexity of teamwork rather than on distinct practices. This model could also serve as an artefact to engage, align, and inspire members of the nascent teamwork CoP to strengthen their own practices. Within the conceptual framework of my proposed developmental model, I also suggested guidelines for designing student team activities based on the three dimensions of success. From my findings, and this follow on discussion, I drew five recommendations for BAPC and the CCC.

**Study Recommendations**

I encourage BAPC administrators and faculty to work with CCC professionals to build on and extend my research, and work to achieve the following recommendations.

1. Enhance cross-cultural competencies among BAPC staff and faculty to support teamwork.
   a. Schedule and document cross-cultural training for BAPC staff and faculty provided by internal institutional expertise (ISC, Student Services, Human Resources).

2. Develop a progression for BAPC teams over the course of their program.
   a. Share and adapt a tripartite team development model to BAPC (coordinated, cooperative, collaborative), with emphasis on coordinated and cooperative teamwork.
   b. Integrate social and knowledge processes into the design and implementation of team learning strategies.
c. Integrate dimensions of CoP into the design of teams and team assignments.

3. Design BAPC team assignments based on the expected level of team development.
   a. Share and adapt a complexity model for teamwork to BAPC team assignments (simple, complicated, complex).
   b. Integrate social and knowledge processes, and dimensions of CoP into the design and implementation of team learning activities and tools.

4. Develop BAPC guidelines for assessing teamwork that reflect the successful combination of social and knowledge processes.
   a. Apply teamwork rubric program-wide.
   b. Integrate principles of social theory of learning into team assessments.

5. Design unique teamwork environments for face-to-face and blended learning in the BAPC program.
   a. Develop a model for information processing on teams, characterize and adopt supporting technologies.

Details and evidence for my recommendations are found in my findings and discussion. It is also important to reiterate that my findings are drawn from a small pool of participants. As I stated in Chapter 4 (Scope and Limitations of Inquiry), such as small sample necessarily weakens the reliability of my findings. Nevertheless, in the context of ARE, stakeholders have engaged with my findings, can test my recommendations, and draw their own conclusions. My recommendations are offered by way of further engaging stakeholders around identified issues and concerns drawn from a small sample of participants and are in no way prescriptive tactics for necessarily strengthening student teams. Here I provide a simple rationale for each recommendation, references to my detailed discussion, and examples for implementation.
Cross-cultural competencies among staff and faculty.

Cultural diversity continues to increase in BAPC even while administrators and faculty expressed uncertainty about the impact of this diversity on team success. As a consequence, I recommend enhancing cross-cultural competencies within the program. Enhanced understanding and sensitivity to the advantages and challenges of cultural diversity will also help administrators and faculty distinguish between issues related to culture (e.g., mental models, communication styles, relationship to authority, time orientation) and issues related to capacity (e.g., video editing, English language proficiency, research skills, critical thinking). Exploring these distinctions can help resolve the current uncertainty, and guide responses to perceived issues related to cultural diversity.

Expertise in cross-cultural competencies exists at RRU both formally and informally. With the support of CCC professionals, BAPC can bring this expertise in house to train faculty and students. For example, cross-cultural training could be integrated into student team training and provided to faculty through a workshop. Distant faculty could attend electronically, or share in the learning by watching a recording of the session. From this shared foundation, additional activities could be scheduled and practices developed.

Develop a progression for BAPC teams.

Developing teamwork over time provides students with opportunities for practicing and integrating specific skills and knowledge about teamwork into their work. A teamwork progression provides a roadmap for staff, faculty, and students that can set realistic expectations for learning and development, orient students toward success throughout their learning, and provide direction for faculty when designing and evaluating teamwork. In my discussion, I suggested a tripartite teamwork development model (Figure 4; simple, complicated, complex).
that could serve as a starting point for discussions within BAPC about a developmental model for student teamwork.

In support of a program-long development model, student teams should be stable across multiple courses and should stay together for at least one quarter. The longer teams stay together, and the more experiences they have, the more opportunities they have to learn. This stability and predictability strengthens team learning.

I acknowledge that this recommendation is ambitious; I am recommending redesigning significant elements of the entire BAPC program. This necessarily involves multiple stakeholders (administrators, faculty, students) across several organizational units (BAPC, School of Communication, FSAS, curriculum committee) and will take some time to complete. Nevertheless, there is value in describing and defining a learning progression. Once curriculums, procedures, and artefacts are in place, the “future will have to be organized around them” (Wenger, 1999, p. 231). Even if there is no consensus about an overarching framework, the discussions could help define the domain of teamwork, strengthen the community of practice, and facilitate the exchange of effective teamwork practices.

CTET supports program mapping by hiring instructional designers with expertise in designing curricula. BAPC managers and faculty can work with CTET and their instructional designers to develop a progression that supports the RRU LTM, including teamwork. CCC professionals can support this progression by training and then coaching student teams as they develop.

**Design team assignments based on the expected level of team development.**

As teams learn to work together, the nature and kind of tasks/activities teams can take on also changes. Matching team assignments to the expected level of team development provides
teams with appropriate opportunities to learn and develop, and faculty with guidelines for assessing that learning and development. Team assignments can be designed to reflect the development of teamwork skills (simple, complicated, complex) and dimensions of team success (outcomes, knowledge processes, social processes).

This recommendation is more achievable in the short term. Even without an overarching framework, faculty members can adapt and adopt elements of these design characteristics into their individual teamwork practice. BAPC managers can facilitate teamwork practices by gathering and sharing examples of teamwork activities from within and without the program.

**Develop guidelines for assessing teamwork that reflect the successful combination of social and knowledge processes.**

Guidelines for assessing participation, teamwork, and cohort learning activities should reflect all dimensions of team success (outcomes, social processes, knowledge processes). Assessing learning across all three dimensions rewards teams for developing and integrating practices essential to success. It will also likely motivate students to understand and make sense of the interactions between these dimensions, and encourage staff to integrate all three dimensions in the design and assessment of team activities.

BAPC managers and faculty could develop a general teamwork assessment rubric. The rubric could serve as a starting point for faculty to build their own, or they could simply integrate it into their courses. CCC team coaches could support the adoption of the rubric by introducing it during early training, and coaching toward it throughout the program.

**Design unique teamwork environments.**

BAPC managers should work with CTET designers and CCC team coaches to redesign an online learning environment that reflects the impact of online learning on the dimensions of team
success, especially social and knowledge processes. My findings highlighted the constraints of online learning on teamwork, and especially the impact of the LMS on knowledge and social processes.

Student teams use social and knowledge processes to identify, gather, share, organize, evaluate, synthesis, and summarize information. At RRU, virtual student teams rely on distinct and digital technologies to support their processes. In BAPC, most student teams are required to demonstrate and document their processes on the LMS, but BAPC students argue that the LMS inhibits these processes. BAPC managers should work with the CCC team coach to map out a framework for information processing on student teams, including specific actions and supporting technology. With this framework in hand, BAPC managers should work with CTET to review existing LMS teamwork processes and consider revising these processes to better reflect the needs of student teams.

For example, student teams all rely on verbal communication to share information, coordinate activities, provide feedback while they rely on written communication to store, retrieve, and edit text documents and other durable media (e.g., slides, video, audio, websites, blogs). On the LMS at RRU, students officially rely on an asynchronous text-based forum (Moodle Forum) and a synchronous classroom (Collaborate) to share information, coordinate activities, and provide feedback. Team activities on the LMS are visible to the faculty member running the course. Neither technology provides student teams with realistic options for storing, editing, and retrieving shared documents or other media. As a result, most online teams augment the LMS with other media, which is not visible to the faculty member. This is largely also true for face-to-face students. The main difference is that online teams are expected to make some of their processes visible through the use of Moodle and Collaborate, while face-to-face students
are left to develop and support their own team processes. Mapping a general team information process can suggest appropriate reporting technologies for teamwork, especially for online student teams.

In addition to these five recommendations, which are bounded by my focus on BAPC and CCC, I see potential value for RRU in developing a teamwork workshop for faculty and staff similar to the Instructional Skills Workshop designed and run by CTET. I also see value in the CCC establishing an online resource about teamwork similar to the website maintained by the Writing Centre. I offer these suggestions as points for future discussion in the role-out of my recommendations.

**Organizational Implications**

In this section I discuss the implications of my recommendations for leaders and stakeholders at RRU. I also consider the potential systemic impacts.

**Leadership implications.**

Based on my conclusions and recommendations, there are a number of leadership implications for students, administrators, professionals, and faculty at RRU. I agree with Grint’s (2005) understanding of leadership as an “essentially contested concept” (p. 1). As a consequence of this understanding, I consider the leadership implications of my research through four distinct perspectives (performance-based, process-based, position-based, and person-based; Grint, 2005) and in the context of multiple actors (BAPC student teams, BAPC faculty and staff, CCC, RRU, me).

From the perspective of performance-based leadership, my recommendations could strengthen the leadership of BAPC student teams by facilitating their outcome success. The leadership of the CCC could also be strengthened if my recommended interventions and
associated practices result in improvements to the success of BAPC student teams. In the context of a student team and the CCC, leadership is strengthened because of the potential impact of my recommendations on the success of student teams.

From the perspective of process-based leadership, my recommendations could develop the role of leadership on student teams to help manage social and learning processes. My recommendations could also strengthen the practices by which the CCC leads within the teamwork community and faculty leads in the classroom. In this view, leadership is strengthened because of the positive impact of my recommendations on the actions and processes of BAPC student leaders, BAPC faculty, and CCC professionals.

From the perspective of position-based leadership, my recommendations could support the CCC’s position of leadership within the teamwork community. If my recommendations and other recent changes supporting student team improve student team success, RRU’s position as a leader in team-based learning could also be strengthened. My recommendations consolidate key teamwork practices within the CCC, strengthening its centrality within the teamwork community, thus potentially strengthening its ability to moderate teamwork practices and define elements of the teamwork domain. BAPC could play a central role in consolidating CCC’s leadership position. If CCC staff can strengthen student teamwork, successfully support students and faculty, and improve the overall learning environment in BAPC, then they can argue for the success of this approach to student teamwork. Strategies for making their work visible include developing performance measures for teamwork, documenting activities, and sharing information and knowledge with the wider university community.

From the perspective of person-based leadership, my report could strengthen the leadership of the CCC manager and the BAPC head. My research and its recommendations serve to
strengthen the teamwork community at the university. The CCC is the organizational hub for teamwork at RRU. The CCC manager is the leader of this teamwork hub and an active member of the teamwork community. Improvements in the support for and delivery of teamwork through the CCC could deepen the expertise and improve the reputation of the CCC manager. Expertise and reputation are dimensions of influence associated with person-based leadership. The leadership of the BAPC head within the program could be strengthened through similar dimensions of influence.

My recommendations could strengthen the leadership of a number of stakeholders in at least four ways (improvements in performance, improvements in processes, strengthening of positional power, strengthening of personal influence). But inherent in all of these implications is the potential degradation of leadership (loss of performance, weakening of processes, loss of positional power, and loss of personal influence). This is a reality of the emergent elements of the teamwork domain. To mitigate these risks, I have tried to engage with the project sponsor and key stakeholders around the implementation of my recommendations, and in that process, demonstrate an appreciation for the systemic aspects of my proposed changes.

**Stakeholder and sponsor engagement.**

I engaged the sponsor and the stakeholders in a series of informal meetings during which I presented my findings, conclusions and recommendations (S. Chettleburgh, personal communication, June 10, 2015; S. Chettleburgh, personal communication, July 30, 2015; B. Ebb, personal communication, July 30, 2015; R. Mason, personal communication, June 3, 2015; K. Mcleod, personal communication, June 3, 2015; J. Orr, personal communication, July 9, 2015; J. Walinga, personal communication, July 9, 2015). We discussed some of the implications of my recommendations in the context of current practices and planned changes. The primary
responsibility for considering my recommendations falls to the manager of the CCC, and the
director of Student Services. I am currently working with the manager of the CCC and others on
initiatives connected to my research including a pilot project on integrating student assessment
into student teamwork and an informal survey of alternative teamwork learning progressions.
More formal action on my report will not be considered until a new team coach for the CCC is
hired in August of 2015.

Over the summer of 2015, I shared my research findings and conclusions with the BAPC
program head, BAPC administrators, and BAPC faculty. Together we have agreed to develop a
process for integrating a student team training workshop based on my research into the fall 2015
BAPC cohorts. The program head and I have also agreed that I will facilitate at least two
professional development workshops for BAPC administrators and faculty in the fall of 2015.
The plan is to develop a few practical resources for administrators and faculty that can be easily
integrated into a wide range of existing student team experiences, and to present these resources
at the workshops. The sessions will be made more durable by providing electronic examples of
the resources and by sharing a digital recording of the presentations with the BAPC community.
These efforts are supported by the CCC manager and the Faculty Development Liaison at CTET.
They have designated the 2015-2016 school year the “Year of Teams”, and have asked me to
present three 90 minute workshops based on aspects of my research in the fall of 2015.

Stakeholder and sponsor engagement will continue until the winter of 2015 as my
recommendations and other initiatives related to student team success are rolled out. As a team
coach at RRU, my engagement is likely to continue beyond that time. I seek to involve all
relevant actors in my reporting, strengthening their participation in the interpretation and
implementation of my recommendations. Engaging stakeholders in my reporting is an integral
element of my ARE methodology (Coghlan & Brannick, 2010; Rowe, et. al., 2013, Stringer, 2014).

**Systemic impacts.**

If implemented, my recommendations will have systemic impacts. As noted in Chapter 1, a number of elements in the teamwork community are unstructured, uncontrollable by participants. As a consequence, it is likely that attempts by stakeholders to change aspects of the student team experience through defined policies and procedures will produce unexpected outcomes. Rather than land on specific prescriptions, I have tried to remain open to the reality of dynamic, adaptive, and emergent elements of the teamwork system at RRU so as to optimize success. Wenger (1999) articulates this complexity through the paradox of design.

Design for learning cannot cleanly separate between conception and realization, between planning and implementation; it must instead aim to combine different kinds of knowability so they inform each other. A design, then, is not primarily a specification (or even an underspecification) but a boundary object that functions as a communication artefact around which communities of practice can negotiate their contribution, their position, and their alignment. (pp. 234-235)

In keeping with this understanding, I have tried, through my recommendations to suggest the creation of a boundary object (learning progression supported by representative activities) around which community members can communicate. I have recommended professional development as a medium through which BAPC staff can “negotiate their contribution, their position, and their alignment” to the teamwork domain. I also suggested that the CCC support teamwork-centred professional development system-wide and facilitate the creation of an in-house online information and communications platform for team-based learning. These wider
initiatives provide opportunities for others in the teamwork community to respond to the learning progression, to build on and share a wide range of practices, and to negotiate their own contributions, positions, and alignments to the community of practice.

In addition to these general impacts, there are likely specific systemic impacts on BAPC and CCC. These impacts include competition for team coaching resources, staff and faculty time, financial resources, and negotiations about the jurisdictional boundaries between CTET, BAPC, and CCC. BAPC managers provide ad hoc support for student teams. As a result, BAPC is likely to benefit from the additional support for teamwork provided by CCC team coaches, but the CCC must service both FoM and FSAS, resulting in competition for time and resources to access these team support services. Furthermore, FoM stands to lose some of its existing support for student teams. Until the CCC was established, FoM managers contracted dedicated team coaches for their programs. Those team coaches now deliver their services through the CCC, and they must now service FSAS and FoM. It is not clear that moving forward, coaches will be able/expected to provide historical levels of service to FoM.

Furthermore, several of my recommendations encourage BAPC managers to redesign elements of their program to better support student teams. Internally, a program redesign will require an engagement from staff and faculty to develop the new design, and financial resources to implement changes. This will precipitate discussions about competing priorities, potentially disrupt existing plans, and require negotiations to align and engage stakeholders.

Finally, redesigning program elements (e.g., course content, assignments, rubrics) and delivery (LMS) to support student teams will require the cooperation of other institutional actors, and especially CTET. CTET managers and staff have their own work plans, priorities, and
constraints, so BAPC managers will have to negotiate processes and outcomes with CTET when developing and implementing recommendations.

**Implementation Process**

Changes to the learning progression take time to develop because there are multiple primary stakeholders (faculty, staff, students, CTET, Curriculum Committee), and limited resources (time, money, available expertise) to facilitate the change process. Based on insights from institutional actors with experience with program reviews, 16 to 18 months is the minimum time required to complete such a task.

All programs undergo a periodic review, and BAPC started a review earlier in 2015. With the support of key stakeholders, my recommendations could be integrated into this wider program review. It is during this formal process that competing fields of influence have the greatest potential to shape the specific character of teamwork in the BAPC program and set the framework for future adaptations. This is because the process of modifying curriculum requires formal and informal interactions between multiple subsystems. Any changes to the program would have to be undertaken with the input and support of faculty, and would have to be approved by the Dean of FSAS and the university, represented by the Curriculum Committee.

During this time, CCC could facilitate professional development opportunities for BAPC staff and faculty, especially around more discrete subjects like enhancing cross-cultural competency, designing effective team assignments, or integrating reflexivity into teamwork. Faculty could implement these changes without oversight, and as a result would not need to negotiate with other stakeholders. This approach also encourages faculty to begin the process of meaning making, negotiation, and alignment around teamwork before considering more profound structural changes to the BAPC program.
Implications For Future Inquiry

For me, three topics/issues especially raised more questions and suggested possible meaningful future inquiry at RRU and for research into student teamwork.

My discussion touched on the connection between teamwork and CoPs. A literature search revealed little work in this area, suggesting that there may be new and interesting connections to be made between teamwork and CoPs. In particular, the connections between the concepts of community (learning as belonging) and identity (learning as becoming) suggest that current explanations for the role of social processes in team success may be cast wider. A pro social orientation could be more than simply sharing mental models and goals with others. In addition to this narrow understanding, there exists the possibility for understanding pro social behaviour through the desire to belong and to become. In the context of an andragogy (McKenzie, 1977; Yonge, 1985) grounded in social learning (Royal Roads University, 2013a; Wenger, 1998), this research could reveal deeper connections between teamwork, social processes, and learning, and suggest alternative practices for strengthening teamwork.

Distinguishing outcomes from social and knowledge processes further complicates assessing teamwork. In order to assess teamwork across all dimensions of success, faculty must be able to distinguish individual work from group work, and social work from knowledge work. Conceptually, this requires peering into the work of teams as it unfolds, rather than judging its success by the outcome alone. There are several well-established tools available for assessing elements of teamwork (e.g. CATME, VALUE). Still, there is additional work to be done to determine if knowledge processes can be distinguished from social processes, and, if they can be distinguished, whether they can be assessed. Even with such sophisticated assessment tools,
researchers must also address the question of how to integrate the resultant information into the development of the student team.

My findings showed that BAPC participants and BAPC students were concerned about the lack of authenticity of the online learning environment. The assumption in their concern was that a lack of authenticity necessarily correlated with diminished learning. The growing use of online learning has raised new questions about authenticity in a digital classroom. Researchers must answer a number of questions including defining authentic learning and figuring out how online technologies can support and/or hinder authenticity.

**Report Summary**

The sponsor and key stakeholders intend to act within the domain of student teamwork. Some of these actions are independent of, but in alignment with, recommendations in this report (hiring full time team coach, piloting student assessment tools, developing online educational resource). Other actions are more closely connected to my research and my recommendations (researching teamwork learning progression, working with BAPC). Each of these initiatives highlights upcoming steps in the organizational change project.

The project sponsor, the Director of Student Services, and the manager of the CCC have agreed to hire a full-time team coach to work in the CCC under the supervision of the CCC manager. This is a new position that increases the capacity of the CCC to support student teams across the university. The university has approved funding and the job description for the position. The university posted the position in June of 2015, and filled the position in August of 2015, in time for the fall intake of student. The hire provides additional capacity at the CCC to support recommendations in my report such as developing a teamwork progression and facilitating professional development.
Over the summer of 2015, a project team (CCC manager, CTET program liaison, me) is piloting student assessment tools for student teams. Faculty can use student assessment tools to assess the social and knowledge processes of a team, and based on the assessment, celebrate success and support student learning. In addition, student teams can use student assessments reflexively to calibrate their shared experiences, acknowledge success, and improve their processes. The project team is testing four student assessment tools across a number of programs. We are also collecting data from one BAPC faculty who already uses a student assessment tool. We will release our report in the fall of 2015.

In the design of the pilot, I suggested we consider the impact of student assessments on student team success by situating student assessment within a framework for learning and teaching about teamwork. As a result, the selected student assessment tools will be evaluated within a simple learning progression that includes training, practice, and reflection.

In the fall of 2015, the CCC staff member will be tasked with developing an Online Educational Resource (EOR) for new students, akin to the LMS orientation, and other program-specific online institutional acculturation artefacts (e.g. Bridge to BComm). Every student entering into a program at RRU will be expected to take the EOR. In anticipation of developing the EOR, over the summer of 2015, the CCC manager and I are also collecting information about possible alternative frameworks for a teamwork learning progression. This is an informal process focussed on gathering information. Our expectation is that this information will feed into a more formal discussion with stakeholders about the content and language of the EOR, which is intended to start student team learning. As the initiating artefact, the EOR sets the stage for learning about teamwork; as a singular object, it must encompass and speak to the range of
approaches and experiences at RRU. It is a significant boundary object about which the teamwork community must engage, align, and imagine.

I have also committed to working directly with BAPC over the fall and winter of 2015 to support student teams. I will do this work under the supervision of the CCC manager so that it aligns with wider goals. Specifically, I will provide 1) coaching for one cohort of student teams, 2) two professional development workshops for BAPC staff and faculty focussed on teamwork, and 3) participate as a consultant in any BAPC program mapping and learning progression initiatives.

I believe there is a real and present opportunity for strengthening the domain of student teamwork at RRU because of the existing desire for change in student teamwork. In my introduction, I referenced a number of personal communications with staff and faculty who suggested student teamwork was a source of uncertainty and risk. The executive was clearly aware of the situation. Over the last year, through work of the project sponsor, the university has opened the CCC, hired the CCC manager, and proposed hiring a full time team coach to work with the CCC manager. The executive has supported these initiatives financially with some new money and with the reallocation of other money. My belief in the desire for change was reinforced in the interviews with participants. The potential successes in this change project are associated with awakening the imagination of stakeholders, fostering engagement in the teamwork community, and with facilitating alignment to RRU’s LTM. My recommendations could support this potential, thereby strengthening the success of student teams.
References


Appendix A: CCC Relationship Structure

Student Coaching Centre

Individual
  - Personal
    - Counselling (Student Services)
    - Student & Alumni Coach Referrals
    - Centre for Coaching & Workplace Innovation
  - Academic
    - Learning Strategies - Students with a disability (Student Services)
    - Thesis Completion Coaching (Continuing Studies)
    - Writing Coaching (Writing Centre)
    - Future Academic Support (Digital media literacy, Numeracy)

Team
  - Theory
    - Required OER tutorial on teams, learning communities, and digital communication basics
  - Practice
    - Team Coaches (Faculty of Management only)
    - Faculty
Appendix B: Focus Group, and Survey Questions

The focus groups are semi-structured, and are expected to take between 60 and 90 minutes to complete. The survey is exclusively comprised of open-end questions, and is expected to take approximately 10-20 minutes to complete.

The focus group and the survey questions are centred on four themes. The themes are:

- Student-learning teams
- Teamwork
- Team success
- Team support

Focus Group Format and Questions

The focus group will loosely follow this format.

Opening activity (Done individually in writing.)

- What is the first thing that comes to mind when you hear the phrase [theme]?

  OR,

- Choose an image that best represents [theme]. Write down the aspects of the image that resonated with you about [theme].

Opening question

- Think of a time when you experienced successful teamwork and describe that in as much detail as possible.

Focal questions

- What is success on a student-learning team at RRU?
- What strategies do you employ to help ensure team success?
- How can the university support student success on student-learning teams?
Transition/Probing questions (interspersed with focal questions)

- You mentioned [...]. Tell me a bit more about what you meant by that.
  OR,

- You talked about [...]. Does anyone have an example of that?

Closing questions

- Are there any relevant topics that you’d like to discuss that I’ve missed?
  OR,

- Are there any questions that I haven’t asked that we should talk about?
Survey Format and Questions

What does teamwork look like to you?

Look at the pictures below. Which of the pictures do you think best represents teamwork at Royal Roads?

- Choice 1

![Choice 1 Image]

- Choice 2

![Choice 2 Image]

- Choice 3

![Choice 3 Image]
Choice 4

What qualities or characteristics of teamwork do you see in the image you chose?

Your Experiences with Teamwork

In this section, I am looking for your insights about teamwork at Royal Roads based on your personal experiences in the BAPC program.

Think back to a recent teamwork experience at Royal Roads. Would you consider this experience successful?

- Yes
- No

In your view, why do you think this experience was successful/unsuccesful?

What does success on a team in the BAPC program mean to you?

What strategies and tactics do you use to support the success of your team?

What is one change you would like to see in the BAPC program to better support the success of your team?

Wrapping Up

Thanks for taking the time to complete this survey.
Are there any additional insights about teamwork that you’d like to share?

In addition to this survey, I am looking for 6 volunteers for a focus group interview. If you are interested in participating in the focus group, please click "yes" for additional information. If not, click "no", and you will be exited from the survey.

○ Yes
○ No

Focus Group

Thanks for completing the survey and your interest in participating in the focus group. I will choose 6 participants on a first come-first serve basis. The focus group will take place sometime between February 4th and February 10, 2015 with details to follow. The focus group will take place in Victoria, at Royal Roads and folks who live elsewhere will have the option of participating through teleconference. The focus group will take between 60 and 90 minutes, and will be recorded.

I am still interested in participating in the focus group

○ Yes
○ No

I am

☐ Under 19 years old
☐ Between 20 and 29 years old
☐ Between 30 and 39 years old
☐ Between 40 and 49 years old
☐ Older than 50 years old

I self identify as

☐ Male
☐ Female
☐ Blended

Contact Information
This survey is anonymous, so in order to confirm your participation in the focus group, I need some contact information.

Name

email

Phone number

City

Potential Availability

In the week of February 4th to February 10th, when are you more likely to be available?

Morning  Afternoon  Evening

Weekdays  □  □  □

Weekend   □  □  □
Appendix C: Letter of Introduction and Purpose of Survey

I am a Masters candidate in the Masters of Leadership program at Royal Roads University. I am in the process of writing my Masters thesis and am collecting data for that purpose. For my thesis I am very interested in exploring the how students and the university can support successful student-learning teams at the university.

The purpose of this letter is to ask for your assistance by participating in a 20-30 minute online anonymous survey. Participation is voluntary, and you are free to withdraw at any point from the research.

Before agreeing to participate in this research, I strongly encourage you to read the following explanation of this study. This statement describes the purpose and procedures of the study. Also described is your right to withdraw from the study at any time. The Research Ethics Board of Royal Roads University has approved this study.

Please ask any questions that you have about participating in this project at any time. I want you to have the information you need to make a decision that is best for you.
Appendix D: Letter of Introduction and Purpose of Focus Group

I am a Masters candidate in the Masters of Leadership program at Royal Roads University. I am in the process of writing my Masters thesis and am collecting data for that purpose. For my thesis I am very interested in exploring the how students and the university can support successful student-learning teams at the university.

The purpose of this letter is to ask for your assistance by participating in a 60-90 minute focus group. Participation is voluntary, and you are free to withdraw at any point from the research.

Before agreeing to participate in this research, I strongly encourage you to read the following explanation of this study. This statement describes the purpose and procedures of the study. Also described is your right to withdraw from the study at any time. The Research Ethics Board of Royal Roads University has approved this study.

Please ask any questions that you have about participating in this project at any time. I want you to have the information you need to make a decision that is best for you.
Appendix E: Informed Consent - Survey

My name is Michael Pardy, and this research project is part of the requirement for a Masters of Arts in Leadership at Royal Roads University. My credentials with Royal Roads University can be established by contacting Dr. Brigitte Harris, Director of the School of Leadership Studies by email (Brigitte.3harris@RoyalRoads.ca) or by phone (250.391.2600, extension 4467).

Purpose of the study and sponsoring organization

The purpose of my research project is to determine how the Coaching and Counselling Centre at Royal Roads University can support student success on student-learning teams.

I am conducting this inquiry based on the following question: How can the Coaching and Counselling Centre support student-learning teams in order to improve student success? In support of this question, I am asking the following sub questions: How do stakeholders define and explain success on a student-learning team at RRU; and, what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU?

Your participation and how information will be collected

This stage of the research will consist of a short survey, and is expected to take 20 to 30 minutes to complete.

Benefits and risks to participation

The anticipated risks to you in this research project are minimal. Nevertheless, there are potential psychological and privacy harms. Interviews may surface negative memories and emotions. Privacy protections may be breached, the identity of participants revealed, and the authorship of opinions and views discovered.
The methods, techniques, and procedures adopted in this research meet or exceed current research practices in the social sciences. The research is being conducted under the supervision of two academic supervisors, with the approval of the university, and has been approved by the university Research Ethics Board (REB). I encourage you to ask questions at each step of your participation; you can decide to withdraw from the research at any point of your participation without penalty or sanction.

This research also offers benefits to participants and to others. You can benefit from improvements in your wellbeing and your understanding of student learning and teamwork. You can also benefit from taking an active role in developing the RRU learning and teaching community. Benefits will also accrue to others in the RRU community and beyond. Specifically, future students will benefit from improvements to the design and delivery of teamwork methods and activities. Programs and students will benefit from improvements to support mechanisms offered by the CCC. Faculty will benefit from greater clarity in their expectations of student teams and associated assessments. Given the expanding use of student teams in a variety of educational settings, the education community will benefit generally this addition to the wider conversation about teams, team learning, and team success in education.

**Research team**

The Research Inquiry Team consists of a Faculty Supervisor, Project Sponsor, two moderators, and a transcriptionist. Each member of the team will be required to sign an Inquiry Team Letter of Agreement, which ensures confidentiality and ethical practices are adhered to.

**Real or Perceived Conflict of Interest**

My role within the organization does not pose a potential conflict of interest as researcher. I do work at Royal Roads University, but in the Faculty of Management and at the International
Studies Centre. I have not and do not work with students enrolled in the BA of Professional Communication. Furthermore, I have not and do not work with the instructors or managers of the BA in Professional Communication. I disclose this information here so that you can make a fully informed decision on whether or not to participate in this study.

Confidentiality, security of data, and retention period

I will work to protect your privacy throughout this study. All information I collect will be maintained in confidence with hard copies (e.g., consent forms, transcripts) stored in a locked filing cabinet in my office, and electronic copies (e.g. audio recordings) stored on password-protected home computer in password-protected files.

The electronic survey will be conducted using Fluid Survey, which is based in Canada and stores its data on servers located in Canada, which are not currently subject to the US Patriot Act. Survey data will be stored in a password-protected file on my home computer.

The survey data collected will be stored for 5 year following completion of the thesis project at which time all data will be destroyed. The data pertaining to an identifiable individual who has withdrawn at any time throughout the process will not be retained. Due to the nature of the group method, for example focus groups, it is not possible to keep identities of the participants anonymous from the researcher, moderator, or other participants. Participants will be asked to verbally consent to respecting the confidential nature of the research by not sharing names or identifying comments outside of the group.

Sharing results

I will be submitting and sharing my final report to Royal Roads University in partial fulfillment for a Masters of Arts in Leadership degree. In addition, the final report will be prepared and presented in person to stakeholders including the Executive Committee and
research participants. Finally, as a thesis project, the final report will be published through the Thesis Canada Portal of Library and Archives Canada, and ProQuest/UMI.

**Procedure for withdrawing from the study**

Participants may withdraw from the study at any time and should directly contact the researcher by email to do so. If a participant chooses to withdraw, any data collected as a result of their direct contribution will be destroyed. However, if data was collected in an anonymous or group format it might not be possible to identify individuals’ comments in order to remove them from the project.

You are not required to participate in this research project. By replying directly to the email request for participation, signing the in-person consent form, or continuing on to complete the online survey you indicate that you have read and understand the information above and give your free and informed consent to participate in this project. Please keep a copy of this information letter for your records.
Appendix F: Informed Consent – Focus Group

My name is Michael Pardy, and this research project is part of the requirement for a Masters of Arts in Leadership at Royal Roads University. My credentials with Royal Roads University can be established by contacting Dr. Brigitte Harris, Director of the School of Leadership Studies by email (Brigitte.3harris@RoyalRoads.ca) or by phone (250.391.2600, extension 4467).

**Purpose of the study and sponsoring organization**

The purpose of my research project is to determine how the Coaching and Counselling Centre at Royal Roads University can support student success on student-learning teams. I am conducting this inquiry based on the following question: How can the Coaching and Counselling Centre support student-learning teams in order to improve student success? In support of this question, I am asking the following sub questions: How do stakeholders define and explain success on a student-learning team at RRU; and, what are the attributes and processes of teamwork in the context of a successful student-learning team at RRU?

**Your participation and how information will be collected**

This stage of the research will consist of a focus group of four to six people, and is expected to take 60-90 minutes to compete. Once the focus group has been transcribed, you will be given an opportunity to review the information. This review is expected to take 30 minutes.

**Benefits and risks to participation**

The anticipated risks to you in this research project are minimal. Nevertheless, there are potential psychological and privacy harms. Focus groups may surface negative memories and emotions. Privacy protections may be breached, the identity of participants revealed, and the authorship of opinions and views discovered.
The methods, techniques, and procedures adopted in this research meet or exceed current research practices in the social sciences. The research is being conducted under the supervision of two academic supervisors, with the approval of the university, and has been approved by the university Research Ethics Board (REB). I encourage you to ask questions at each step of your participation; you can decide to withdraw from the research at any point of your participation without penalty or sanction.

This research also offers benefits to participants and to others. You can benefit from improvements in your wellbeing and your understanding of student-learning and teamwork. You can also benefit from taking an active role in developing the RRU learning and teaching community. Benefits will also accrue to others in the RRU community and beyond. Specifically, future students will benefit from improvements to the design and delivery of student team learning methods and activities. Programs and students will benefit from improvements to support mechanisms offered by the CCC. Faculty will benefit from greater clarity in their expectations of STUDENT TEAMWORK and associated assessments. Given the expanding use of STUDENT TEAMWORK in a variety of educational settings, the education community will benefit generally this addition to the wider conversation about teams, team learning, and team success in education.

**Research team**

The Research Inquiry Team consists of a Faculty Supervisor, Project Sponsor, two moderators, and a transcriptionist. Each member of the team will be required to sign an Inquiry Team Letter of Agreement, which ensures confidentiality and ethical practices are adhered to.

**Real or Perceived Conflict of Interest**
My role within the organization does not pose a potential conflict of interest as researcher. I do work at Royal Roads University, but in the Faculty of Management and at the International Studies Centre. I have not and do not work with students enrolled in the BA of Professional Communication. Furthermore, I have not and do not work with the instructors or managers of the BA in Professional Communication. I disclose this information here so that you can make a fully informed decision on whether or not to participate in this study.

Confidentiality, security of data, and retention period

I will work to protect your privacy throughout this study. All information I collect will be maintained in confidence with hard copies (e.g., consent forms, transcripts) stored in a locked filing cabinet in my office, and electronic copies (e.g. audio recordings) stored on password-protected home computer in password-protected files.

Focus group data will be recorded in hand-written format or taped/videotaped and, where appropriate, summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential.

The data collected will be stored for 5 year following completion of the thesis project at which time all data will be destroyed. The data pertaining to an identifiable individual who has withdrawn at any time throughout the process will not be retained. Due to the nature of the group method, for example focus groups, it is not possible to keep identities of the participants anonymous from the researcher, moderator, or other participants. Participants will be asked to verbally consent to respecting the confidential nature of the research by not sharing names or identifying comments outside of the group.

Sharing results
I will be submitting and sharing my final report to Royal Roads University in partial fulfillment for a Masters of Arts in Leadership degree. In addition, the final report will be prepared and presented in person to stakeholders including the Executive Committee and research participants. Finally, as a thesis project, the final report will be published through the Thesis Canada Portal of Library and Archives Canada, and ProQuest/UMI.

**Procedure for withdrawing from the study**

Participants may withdraw from the study at any time and should directly contact the researcher by email to do so. If a participant chooses to withdraw, any data collected as a result of their direct contribution will be destroyed. However, if data was collected in an anonymous or group format it might not be possible to identify individuals’ comments in order to remove them from the project.

You are not required to participate in this research project. By replying directly to the e-mail request for participation, signing the in-person consent form, or continuing on to complete the online survey you indicate that you have read and understand the information above and give your free and informed consent to participate in this project. Please keep a copy of this information letter for your records.
Appendix G - Inquiry Team Letter of Consent

In partial fulfillment of the requirement for a Master of Arts in Leadership Degree at Royal Roads University, MA-Leadership Student Michael Pardy (the Student) will be conducting an inquiry research study at Royal Roads University to best inform how the Coaching and Counselling Centre can support student-learning teams for success in teamwork. The Student’s credentials with Royal Roads University can be established by calling Dr. Brigitte Harris, Director of the School of Leadership Studies by email (Brigitte.3harris@RoyalRoads.ca) or by phone (250.391.2600, extension 4467).

Inquiry Team Member Role Description

As a volunteer Inquiry Team Member assisting the Student with this project, your role may include one or more of the following: providing advice on the relevance and wording of questions and letters of invitation, supporting the logistics of the data-gathering methods, including observing, assisting, or facilitating an interview or focus group, taking notes, transcribing, or reviewing analysis of data, to assist the Student and Royal Roads University in an organizational change process. In the course of this activity, you may be privy to confidential inquiry data.

Confidentiality of Inquiry Data

In compliance with the Royal Roads University Research Ethics Policy, under which this inquiry project is being conducted, all personal identifiers and any other confidential information generated or accessed by the inquiry team advisor will only be used in the performance of the functions of this project, and must not be disclosed to anyone other than persons authorized to receive it, both during the inquiry period and beyond it. Recorded information in all formats is covered by this agreement. Personal identifiers include participant names, contact information,
personally identifying turns of phrase or comments, and any other personally identifying information.

**Bridging Student’s Potential or Actual Ethical Conflict**

In situations where potential participants in a work setting report directly to the Student, you, as a neutral third party with no supervisory relationship with either the Student or potential participants, may be asked to work closely with the Student to bridge this potential or actual conflict of interest in this study. Such requests may include asking the Inquiry Team Advisor to: send out the letter of invitation to potential participants, receive letters/emails of interest in participation from potential participants, independently make a selection of received participant requests based on criteria you and the Student will have worked out previously, formalize the logistics for the data-gathering method, including contacting the participants about the time and location of the interview or focus group, conduct the interviews (usually 3-5 maximum) or focus group (usually no more than one) with the selected participants (without the Student’s presence or knowledge of which participants were chosen) using the protocol and questions worked out previously with the Student, and producing written transcripts of the interviews or focus groups with all personal identifiers removed before the transcripts are brought back to the Student for the data analysis phase of the study.

This strategy means that potential participants with a direct reporting relationship will be assured they can confidentially turn down the participation request from their supervisor (the Student), as this process conceals from the Student which potential participants chose not to participate or simply were not selected by you, the third party, because they were out of the selection criteria range (they might have been a participant request coming after the number of participants sought, for example, interview request number 6 when only 5 participants are
sought, or focus group request number 10 when up to 9 participants would be selected for a focus
group). Inquiry Team members asked to take on such 3rd party duties in this study will be under
the direction of the Student and will be fully briefed by the Student as to how this process will
work, including specific expectations, and the methods to be employed in conducting the
elements of the inquiry with the Student’s direct reports, and will be given every support possible
by the Student, except where such support would reveal the identities of the actual participants.

Personal information will be collected, recorded, corrected, accessed, altered, used,
disclosed, retained, secured and destroyed as directed by the Student, under direction of the
Royal Roads Academic Supervisor.

Inquiry Team Members who are uncertain whether any information they may wish to share
about the project they are working on is personal or confidential will verify this with Michael
Pardy, the Student.

**Statement of Informed Consent:**

I have read and understand this agreement.

________________________ _________________________ _____________
Name (Please Print)   Signature    Date