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Research assistants at Kwantlen Polytechnic University : Positioning and Training for Success

Ann McBurnie

Kwantlen Polytechnic University

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RESEARCH ASSISTANTS AT KWANTLEN POLYTECHNIC UNIVERSITY:
POSITIONING AND TRAINING FOR SUCCESS

By

ANN McBURNIE

An Organizational Leadership Project Report submitted in partial fulfillment of
the requirements for the degree of

MASTER OF ARTS
In
LEADERSHIP

We accept this Report as conforming
to the required standard

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ABSTRACT

This study examined organizational practices impacting research assistants (RAs) at Kwantlen Polytechnic University (Kwantlen), identifying issues and discovering optimal ways to address concerns, increase their connection to the organization, and maximize their contributions, enabling Kwantlen to move forward as an institution that encourages faculty and student research. Using qualitative action research methodology, I invited RAs and researchers who employed RAs to examine how a new, small polytechnic university with a teaching focus could maximize the potential of undergraduate student RAs. I engaged 15 RAs in two focus groups and five researching faculty who employed RAs in a third focus group, in addition to interviewing three researchers individually. Together, we identified issues and explored possibilities for improvement, including comprehensive recruiting, hiring and training practices, and a focus on valuing the university's RAs. This led to a recommendation that the role of the Office of Research and Scholarship be expanded.

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My special admiration is sent out to Kwantlen’s research assistants and researchers, true devotees of the Kwantlen learning community and flame-keepers of research. Thank you especially to those who became my research participants and freely shared your opinions and dreams. This project is dedicated to you, your colleagues, and those who come after you.

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CHAPTER ONE: FOCUS AND FRAMING

This section will introduce my research question and sub-questions. The nature and significance of this project is informed by both a systems analysis and a description of its organizational context.

Kwantlen Polytechnic University (Kwantlen or KPU), my sponsoring organization, was assigned university status in 2008, triggering changes in its mandate and governance structure. Through extensive internal and external consultations, the university embarked on a rebranding process (KPU, n.d.b), clarified its mission and mandate (KPU, n.d.c), and articulated a vision statement and set of commitments (KPU, n.d.f) to guide its transformation. These documents emphasized the importance of building an active applied research program, and placed a high value on work-based learning opportunities for students. Undergraduate research assistant positions supported both of these objectives.

I first became aware of some of the challenges faced by research assistants (RAs) through my colleagues in the library. As the Operations Manager for the university's library, I learned that RAs were encountering problems obtaining faculty-level library privileges, which made it difficult for them to perform required tasks. Although seemingly simple on the surface, the problem resulted from distinctions in status determined by the contract hiring practices for RAs, which restricted both library and computing privileges.

RAs and their needs seemed invisible at Kwantlen; even an experienced reference librarian was unable to locate clear information for students interested in becoming RAs. Multiple departments played specific roles in the hiring, training, or administration of

RAs, as well as the provision of various necessary services, but there was little coordination between departments. RAs found themselves bounced between units, wasting time that could be spent on the job for which they had been hired. Student RAs were losing important learning opportunities; faculty members were getting less research done; and the university was falling short of its mission and commitments.

The organizational complexity of the obstacles faced by RAs, and the clear need to address them, made me consider this as an appropriate focus for an action research project. As the Operations Manager for the university's library, I felt that I had a responsibility to help identify these problems and was in a unique position to do so, given my access to key stakeholders.

The Research Question

My research question was, "How does a new, small polytechnic university with a teaching focus maximize the potential of undergraduate student research assistants?"

More specifically, the following questions needed to be asked:

1. What is the current relationship between Kwantlen and undergraduate student RAs?
 - a. How are RAs managed currently at Kwantlen?
 - b. What is expected of undergraduate student RAs in their job duties?
2. Organizational change: How can the undergraduate student RAs be integrated into Kwantlen's learning community?
 - a. What process should be followed for managing undergraduate student RAs for the benefit of all stakeholders?

- b. What do undergraduate student RAs need from the Kwantlen community in order to do their job effectively?
- c. How do other small teaching universities manage RAs?

From these core questions, I developed my research plan, including the research methods and the questions I would ask the participants.

The Opportunity and its Significance

Kwantlen recently committed to develop a strong applied research program and to provide work-integrated learning opportunities for its students wherever possible. These were identified as two of the cornerstones in its transformation from a university college to a polytechnic university and were documented in the new vision statement (KPU, n.d.f) as well as the mission and mandate (KPU, n.d.c). Research assistantships fulfilled both of these commitments. As paid assistants, undergraduate students had the opportunity to learn valuable skills, and their work enabled faculty to conduct research at this primarily teaching-focused, undergraduate university.

RAs were not new to Kwantlen; 91 contracts were issued in the previous year (Payroll Operations Manager, personal communication, February 14, 2011), but they had a very low profile. The university only started using the word “research” in contract position titles in March of 2010, so there were no statistics available prior to that. The number of RAs who worked on a volunteer basis was also not tracked. RA positions were not posted through any common university department. Most RAs were students who were selected, trained, and supervised by a former instructor. Some RAs were former Kwantlen students. Their duties varied, depending on the faculty member’s research. Many conducted literature reviews and obtained library materials for researchers.

RAs often ran into problems accessing the library's subscription databases from off-campus, borrowing materials, and requesting interlibrary loans. Although current students had the regular range of student library services, RAs required privileges akin to those of the faculty members for whom they worked, such as semester-long loan periods and broader interlibrary loan permissions. RAs who were not current students did not have even student-level privileges; they could not login to campus workstations, access the library's subscription databases from off-campus, or place interlibrary loan requests. This RA category of library users did not fit into the library's existing borrower profiles, which were based on a person's status in the university's Banner database system of employees and students. Off-site access to library databases was determined by a person's Banner status, and was controlled by a separate department: Instructional and Educational Technology (IET). Faculty researchers complained to library staff and librarians about the seemingly arbitrary policies for RAs, which held up their research.

Clearly, a satisfactory resolution to these problems would require communication between many stakeholders. Although I did not interact directly with RAs in my role as the Operations Manager for the university's library, I was well-placed to observe and understand the organizational units and dynamics that affected RAs. My job involved regular communication with administrative staff in other departments, and I had built an extensive network of contacts throughout the organization during my 26 years at the institution. In addition, my administrative work with the Faculty Educational Leave competition gave me some insight into the research needs of faculty members.

I held preliminary discussions by email or in person with potential stakeholders including: RAs, faculty researchers, a librarian, and a Finance department administrator

with responsibility for RA payroll. It immediately became clear that the scope of the challenges facing RAs at Kwantlen went far beyond access to library resources. Several other key issues arose, including: (a) a lack of clear hiring practices, (b) widely disparate wage rates ranging from \$10 to \$60 per hour, (c) varied training levels, (d) operational inconsistencies, and (e) a lack of both tangible and moral support from the university. RAs also expressed a desire for a distinct identity within the institution and meaningful connections across the university; they wanted to be valued as contributors to a community of scholarship at Kwantlen. If it is true that organizations count what they value, the lack of basic information about RAs, such as an accurate count, says something in itself about the apparent institutional value placed on these positions.

Research rarely follows a straight line (Palys & Atchison, 2008, p. 38). What began as a departmental concern about a specific issue revealed itself to be a much larger, systemic problem in need of attention. The immediacy of these organizational, relational, and policy challenges provided an ideal opportunity to investigate the issues, using qualitative methodology in order to “work with others as agents of change” (Glesne, 2006, p. 17). In order to better understand these concerns and develop potential organizational changes to address them, I decided to start by conducting an action research project with two of the key stakeholders: the RAs themselves and the faculty with whom they worked.

Faculty researchers welcomed the idea, and one indicated that the research was “very timely and important, as to my knowledge, we do not yet have any official policy regarding hiring, paying, organizing RAs. . . . [It] will inform Kwantlen well” (personal communication, February 10, 2010). Given that Kwantlen was at the early stages of

developing a research mandate, it seemed an opportune time to address these issues that were impeding the optimal employment of RAs.

The very fact of involving the RAs themselves through this research was an affirmation of their value and a critical step forward in identifying ways to maximize the benefit of such work opportunities, both for the student RAs and for the institution's research and academic program as a whole.

Study after study confirms that people are motivated by work that provides growth, recognition, meaning, and good relationships. We want our lives to mean something, we want to contribute to others, we want to learn, we want to be together. And we need to be involved in decisions that affect us. (Wheatley, 2001, para. 20)

Effective interconnectedness between Kwantlen departments could be a key to achievement of the university's goals. More coordinated administration of RAs would also reduce wasted resources and opportunities (Hobson, Jones, & Deane, 2005, p. 365). Senge (2006) observed that in our complex world "humankind has the capacity to . . . foster far greater interdependency than anyone can manage, and to accelerate change far faster than anyone's ability to keep pace" (p. 69). My hope was that the process and outcome of my research would help to establish these important interconnections at Kwantlen.

Systems Analysis of the Opportunity

Senge (2006) also stated, "There are two fundamental aspects to seeing systems: seeing patterns of interdependency and seeing into the future" (p. 343). In this section, I will present the relationship between internal and external systems that affect Kwantlen's capacity to support research activity, which in turn affects the availability of research assistantships for undergraduate students. Kwantlen is a relatively young postsecondary

institution, which is in the process of transforming from a university college into a polytechnic university and clarifying its research mandate. Kwantlen College was formed in 1981 by dividing Douglas College into two entities, with one of these, Kwantlen, serving areas south of the Fraser River. It was primarily a vocational and two-year transfer college. It did not offer four-year bachelor's degrees until 1995, when it was designated as Kwantlen University College (KUC, n.d.e). It remained under British Columbia's College and Institute Act (1996) so, although its program offerings changed significantly, its internal decision-making and governance structures did not. In 2008, the provincial government changed the status of several higher education institutions (including all three university colleges) to *special-purpose, teaching focused* universities to be governed by the University Act (1996). In addition to Kwantlen's redesignation, the University College of the Fraser Valley became the University of the Fraser Valley and Malaspina University College became Vancouver Island University.

Kwantlen, however, was the only institution to be named a polytechnic university, though it shared a very similar profile to University of the Fraser Valley and Vancouver Island University. The significance of this nomenclature was not made clear in the new sections of the College and Institute Act (1996), nor in the legislative assembly debates on the new legislation. This created a great deal of confusion within the university. It had been hard enough to understand what a university college was supposed to be; a polytechnic university was even more difficult to define. There were no provincial peers to provide a model. The British Columbia Institute of Technology (BCIT) was an institute governed under separate legislation, with a different mandate. Kwantlen somewhat fit the *Oxford English Dictionary's* definition of a *polytechnic*: "an institution

of higher education that offers courses (at or below degree level) mainly in technical, scientific, and vocational subjects” (“Polytechnic,” n.d., para. 2). It offered bachelor's and associate degrees, diplomas, certificates, and citations in over 120 programs to approximately 17,500 students a year at its four campuses (KPU, n.d.a, para. 1), served by more than 1,600 faculty and staff (KPU, n.d.e, Faculty and Staff section, para. 1). It did not, however, have a strong focus on scientific or technical programs. In addition to reviewing its programs, and the facilities required to support them, the university needed to determine the extent to which it should and could support research.

Kwantlen already engaged in a significant amount of research and had created an Office of Research & Scholarship in 2003 (KPU, n.d.g). The wording of the University Act (1996) downplayed the role of research at the new “teaching-focused” universities, however, stating that they should “so far as and to the extent that its resources from time to time permit, undertake and maintain applied research and scholarly activities to support the programs of the special purpose, teaching university” (§47.1(d)). This wording did not suggest either provincial support or funding for research at Kwantlen. Officials from the British Columbia Ministry of Advanced Education and Labour Market Development explicitly stated that the new universities would receive no additional funding. They also warned that “the large research-intensive universities will receive 90% of the research funds available” (Burns, 2009, p. 3).

Given the lack of new provincial funds to support research, Kwantlen researchers would need to look further afield for funds that would enable them to, among other things, hire RAs. Its new university status opened some doors to research funding. Researchers, as principle investigators, were now eligible to apply directly for grants

from the three major Canadian funding agencies: the Social Sciences and Humanities Research Council of Canada (SSHRC), the Natural Sciences and Engineering Research Council of Canada, and the Canadian Institutes of Health Research. An important mandate of SSHRC was to hire and train RAs (Goss Gilroy Inc., 2005, p. 1); in fact, 19% of students involved in SSHRC-funded research were undergraduates (p. 1). As a relatively small institution with little track record, Kwantlen researchers faced fierce competition for grant funds; only one major SSHRC grant had been awarded to date.

The Association of Universities and Colleges of Canada (2010) commented on the value of undergraduate research assistantships in its response to the 2010 federal budget:

The \$32 million annual investment in the three major granting councils will help universities to pursue the kinds of research that will drive innovation and produce the highly skilled workers that all sectors of the economy need. The budget also provided \$8 million for the Indirect Costs Program. (para. 3)

The Indirect Costs Program, Canada (2010a) addressed:

the real and unavoidable costs of research. . . . The Government of Canada introduced the Indirect Costs Program (ICP) in 2003. This permanent program provides Canadian universities and colleges with an annual grant to help pay for a portion of their indirect costs of research. (para. 3)

Kwantlen received \$42,379.00 for the 2010-11 year (Indirect Costs Program, Canada, 2010b, Grants Awarded 2010-11 table). These indirect costs included those of hiring RAs (Association of Universities and Colleges, 2008, p. 20). In addition to these government grants, various foundations offered research funding.

At our closest peer institutions, University of the Fraser Valley and Vancouver Island University, there was considerable attention given on the websites to RAs compared to Kwantlen. The University of the Fraser Valley website revealed a culture in

which faculty were expected to conduct research and encouraged to apply for a one-course release from teaching each year (University of the Fraser Valley, n.d.c, para. 2).

The application form for requesting RAs was simple and stated up-front that 60 hours of RA assistance was available from 30 RA positions (University of the Fraser Valley, n.d.b, para. 1–2). University of the Fraser Valley's (n.d.a) research website promoted the value of RA experience, explaining that:

Conducting research opens the door to new discoveries. It will hone your skills and make you a stronger candidate for graduate school. It also gives you the opportunity to interact with faculty in a way that would not be otherwise possible. (para. 3)

University of the Fraser Valley also offered help in applying for research grants and scholarships or awards, and RA and international internship positions. It offered assistance to students with preparing for conference presentations and celebrated students' work at a Student Research Day. Vancouver Island University (2010) recognized the role of research in its academic plan. It made the connection between the academic plan and the university's support services; linkages between the Research and Scholarly Activity Office, the Library, and Information Technology were made explicit (p. 18). The Vancouver Island University website also had resources regarding research for both faculty and students, and specified the minimum (\$10 per hour) and maximum (\$18 per hour) wage for undergraduate RAs, in addition to listing the policies and provincial legislation under which RAs were employed (Vancouver Island University, n.d.).

Organizational Context

Kwantlen had travelled an interesting route to arrive at this point in its history, with a major milestone in each decade. Beginning in 1970 as Douglas College, it became the other half of a designed split into two institutions in 1981. Kwantlen College became Kwantlen University College in 1995, then Kwantlen Polytechnic University in 2008. Kwantlen's president commented that "the current change to University status is without question the singular most important change in the institution's history" (Atkinson, 2010, para. 27). The provincial government, which created the legislation that created the new teaching-focused universities (University Act, 1996) also provided over half of the institution's operating revenue. The Ministry of Advanced Education and Labour Market Development made it clear that Kwantlen had both the opportunity and the responsibility to be British Columbia's only polytechnic university, but did not definitively prescribe its research role. Kwantlen was expected, however, to develop a three- to five-year plan for becoming a polytechnic university (Atkinson, 2010, para. 6), which would address the research issue among others.

Kwantlen created an entirely new, bi-cameral governance structure, wherein a partially-elected Senate would have broad powers over academic matters and play a significant role in determining the annual university budget that would be sent to the Board of Directors for final approval. Once the basic governance structures were in place, the university undertook an extensive internal and external consultation process to clarify Kwantlen's unique status and help guide its transformation. One consistent theme was the importance of work-based learning opportunities for undergraduate students; this was seen as one of Kwantlen's key distinguishing features as a polytechnic university. One

way to provide such experiences would be to engage students in real-life research by working as RAs.

From the outset of the consultations, notwithstanding the wording of the provincial legislation, the Kwantlen's President reflected the stance of Jones (1993) that "good research, research that is generated by critical questioning between professors and students, and good teaching, teaching that encourages active discussion of new ideas, can only enhance each other in a symbiotic fashion" (pp. 154–155). Atkinson (2009) stated,

Research and innovation inform teaching as much as teaching shapes research and innovation. In a university, the two go together. I am hoping . . . [for] a truly productive discussion about how we define research at Kwantlen, along with how we recognize it. (para. 26)

The resulting mission and mandate statement that was officially adopted in 2010, stated,

We encourage faculty and learners to participate in many forms of knowledge generation and research, including those focused on discovery, creativity, application, and teaching. We honour and reward scholarship that involves learners and the broader community in research design, development, and dissemination. (KPU, n.d.c, para. 9)

The subsequently developed vision and commitments document reinforced this perspective on research: "Kwantlen promotes applied research and scholarly activities that enhance our teaching and enrich our communities" (KPU, n.d.f, para. 17).

Kwantlen's definition of research and scholarship was based on the work of Boyer (1990), who stated, "What we urgently need today is a more inclusive view of what it means to be a scholar—a recognition that knowledge is acquired through research, through synthesis, through practice, and through teaching" (p. 24). Kwantlen's (2009a) 2010/11 academic priorities document recognized that Kwantlen should "support initiatives to increase scholarly and research activity within and across a range of

Faculties (e.g., grant writing support, compliance awareness, intellectual property rights)” (p. 3, F.1.).

The university was committed to developing a strong research program. There were obstacles to this, including the gap in leadership caused by several senior administrators retiring or resigning. A *Strategic Research Plan* (Kwantlen University College, 2003) had been developed in 2003, but had not been reviewed or updated since then. In addition, some administrators felt, as stated by Fleming and Lee (2009) that “the faculty union has been a conservative force resisting change to more university-like forms and structures, whereas, many faculty—in particular, research-active and degree-program faculty—would like to see such changes happen now” (p. 105). The Kwantlen Faculty Association (KFA), however, indicated that it did not oppose research and pointed to the collective agreement which stated that “the parties recognize that research and scholarly activity have always been an integral component of faculty work at Kwantlen” (KPU, 2007, p. 54). The topic of research became connected with a possible rank-and-tenure system.

Another major challenge was funding. As noted in the previous section, Kwantlen researchers had greater access to federal grant funds after Kwantlen’s designation as a university. One research team had already received a substantial three-year grant. However, given the intense competition for these funds and Kwantlen’s relative immaturity, it would take time for Kwantlen researchers to build well-funded research programs through these sources. Most research funds came from a few internal sources:

- The annually-awarded Chancellor's Chair covered a three-year period and provided \$15,000 for each year, but did not fund time release from teaching (KPU, n.d.d).
- The Minor Research and Scholarship Grant, offered twice per year, provided up to \$11,200, including \$10,000 for time release, or up to \$5,000 for research not involving time release (KPU, 2009b, para. 1–2).
- The “0.6 Faculty PD Fund”, a \$1,000 to \$20,000 award presented three times per year, was based on the Kwantlen Faculty Association's contractual agreement (KPU, 2007, p. 104), by which 0.6% of the total salary of all regular and non-regular faculty was available for professional development. Funding was given for the promotion of research and scholarly activity, teaching excellence, and the completion of degrees or their equivalent in the applicant's area of expertise.
- Educational leave, also a contractual agreement, was an additional way of pursuing research and further education. It paid 80% of a researcher's wages and gave one or two semesters' release from teaching (KPU, 2007, p. 63).

Since many faculty conducted research off the sides of their desks (i.e., without funding or release from their teaching responsibilities), it was difficult to gauge the full extent of research activity. One measure was the number of applications received by the Research Ethics Board (REB), since any research involving human subjects must receive approval from the REB. According to the REB Chair, the number had grown from 10 in 2002 to 54 in 2010 (personal communication, February 20, 2011). Another measure was the value of grant funds managed by the Office of Research and Scholarship; according

to the Executive Assistant of Research and Scholarship, “The rough amount for 2009–2010 is \$310,000” (personal communication, September 29, 2010). A particularly interesting figure came from the 2010 National Survey of Student Engagement (as cited in Atkinson, 2011a), which indicated that ten percent of Kwantlen’s students had done research with a faculty member by their senior year (Appendix I section, para. 16).

That number seemed surprisingly high to me considering the obstacles that RAs faced at Kwantlen. Despite the important role they played in enabling research to take place, given all the constraints outlined above and the minimal amount of administrative assistance available for researchers, RAs were virtually invisible in the organization. They operated in an institutional vacuum. It was not possible to determine the number of RA contracts prior to 2010, in part because there was no consistent job title used. No area had overall responsibility for RAs.

RAs had to navigate through an often-confusing bureaucracy at every step. Hiring of RAs had been informally decentralized from the Office of Research and Scholarship to individual departments in the past two years. Departmental assistants were tasked with submitting necessary paperwork for each new hire and ensuring compliance with Human Resource Services’ policies and procedures. However, there was no standard RA job description or provision for this position in official policies (KPU, 2005) or the staff collective agreement (KPU, 2006). Students might be hired as student assistants at minimum wage, yet be expected to perform higher-level RA tasks. Working conditions varied considerably. The widely distributed responsibility for hiring and lack of clear guidelines contributed to the inconsistencies in practice. More research was required to identify ways to ensure RAs were supported appropriately. Kwantlen could discover a

way to standardize and formalize the hiring process and the role of RAs, while at the same time allowing for the flexibility that might be needed for effective work to be done across disciplines.

I began to think both the Office of Research and Scholarship and the Library could provide more support or a gathering place for RAs. The library's webpage on research support encouraged faculty to hire RAs to assist in extensive research (KPU, n.d.h). However, I discovered that once hired, the RA encountered more obstacles in the form of blocks to access required library and computer resources. Chris Burns (2009), Research Support Librarian and former Kwantlen Library Chair, stated,

The Library will need to develop internal policies and work with HR and IET [Informational and Educational Technology] to address the needs of RAs. Currently, both student and contract RAs have more restricted ILL [inter-library loans] privileges [than faculty] and contract RAs have no off-site access to databases. . . . Recent negotiations with HR and IET to provide access for emeritus faculty were very challenging. (p. 11)

The library, traditionally a home to researchers, was unexpectedly faced with difficulties in providing access to the RAs who needed faculty-level privileges in order to do their work effectively. It became an issue that could not be handled in isolation. Other departments needed to assist in the resolution of this issue.

It was evident and essential that collaboration occur between departments to establish a positive experience for RAs. More than this, it would require the will to listen to RAs about their needs and to negotiate with individuals who had expertise or power to change the existing environment to one that was more closely aligned with the university's overall goals.

CHAPTER TWO: REVIEW OF LITERATURE

In this chapter, I provide the context for the inquiry project by introducing the academic literature that addresses the key topics of (a) undergraduate RAs' involvement in faculty research, (b) relationships in the researching community, and (c) organizational change initiatives. Since Kwantlen was a new polytechnic undergraduate university it was advisable to look at the scholarly literature regarding RAs in order to provide a knowledgeable backdrop to Kwantlen's existing processes and future modifications while examining the question, "How does a new, small polytechnic university with a teaching focus maximize the potential of undergraduate student research assistants?"

Undergraduate Research Assistants' Involvement in Faculty Research

According to Hobson et al. (2005), "the research assistant role is well established as one involved in research not of the research assistant's conception" (p. 360). The literature on RAs was not extensive. I noted the positions of teaching assistant, graduate teaching assistant, and graduate research assistant were not the same as a RA in the context of this project. They were positions held by graduate students, most often used in large universities such as the University of British Columbia. Gray and Buerkel-Rothfuss (as cited in Jones, 1993) stated that "almost two-thirds of the [teaching assistants] they surveyed acted as the sole instructor for their assigned courses" (pp. 147-148). However, given the dearth of literature about undergraduate RAs, I also consulted literature about graduate student RAs to identify themes that would be relevant to undergraduate student RAs. Likewise, I examined the literature regarding undergraduate research, which included undergraduate students conducting independent research. In this literature review, I have focused on the issues involved in hiring, training and collaborating with

RAs, as well as the changes necessary in order to fully integrate RAs into a new polytechnic undergraduate university. Specifically, I have explored the literature to find scholarly sources on the following topics: (a) the role of the RA, (b) benefits and challenges to RAs and faculty researchers, (c) recruitment, and (d) training and feedback.

The Role of the Research Assistant

RAs provided services such as photocopying, data entry, electronic research, literature reviews, checking facts, word processing, writing, organizing surveys, and critiquing textbook drafts (Goss Gilroy Inc., 2005, pp. 17-18; Hutchinson & Moran, 2005, p. 7; Jones & Draheim, 1994, p. 87), with their work benefitting both RAs and faculty (Goss Gilroy Inc., 2005, pp. 21-25; Lown, 1993, pp. 30-31). Benton (2004) wrote, “Every research assistant needs to understand that the job is mostly about protecting your faculty employer’s time and mental energy” (para. 19).

Benefits and Challenges

The literature revealed a number of benefits and challenges to both RAs and researching faculty. Sources supported the view that benefits for both RAs and researchers more than compensated for challenges or costs in utilizing RAs for faculty research activity (Goss Gilroy Inc., 2005, p. 33; Jones & Draheim, 1994, p. 93; Lei & Chuang, 2009, p. 233).

Benefits to research assistants. Jones and Draheim (1994) reported that “tasks that seemed purely clerical in the beginning proved to have remarkable educational value for the student” (p. 87). RAs acquired transferable skills, such as library skills in literature reviews and technical skills in computer literacy (Jones & Draheim, 1994, pp. 87-88; Lanza, 1988, p. 110), which they could use in future researching and

publishing activities (Benton, 2004, para. 4; Landrum & Nelson, 2002, p. 15; Plante, 1998, p. 128). A list of these skills could be used by faculty to evaluate “whether the method they use, when working with assistants, provides experiences that maximize the benefits” (Landrum & Nelson, 2002, p. 18). Lanza (1988) added competencies, such as reading and writing, photography, and statistical analysis, and verbal communication. Jones and Draheim (1994) noted the knowledge of the intricacies of the interlibrary loan system (p. 87) and planning skills (p. 88). In addition to these, Gibson, Kahn, and Mathie (1996) identified critical-thinking and speaking skills, the opportunity of working directly with faculty, working well in groups, and understanding research ethics guidelines (p. 37). Jones and Draheim noted that “undergraduate assistance in scholarly research” enabled vital intellectual exchange between students and faculty (p. 94) and an increase in accuracy and speed in word processing (p. 88).

Landrum and Nelson (2002) found data analysis, working with statistical programs, developing questionnaires, and working on manuscripts are all deemed by faculty to be important for RAs to learn for future educational opportunities. They also highlighted the development of self-confidence, leadership, and interpersonal communication skills (p. 18). RAs also had increased knowledge of their field (Jones & Draheim, 1994, p. 88; Lanza, 1988, p. 110; Plante, 1998, p. 128); were more interested in postgraduate education (Evans, Rintala, Guthrie, & Raines, 1981, p. 100; Lei & Chuang, 2009, pp. 233-235; Lopatto, 2004, p. 272; Silva et al., 2004, p. 237); often proceeded to earn advanced degrees with greater opportunity for acceptance into graduate school (Kierniesky, 1984, p. 15; Landrum & Nelson, 2002, p. 15; Plante, 1998, p. 128; Silva et al., 2004, p. 237), including fellowships (Elmes-Crahall, 1992, p. 19); had a higher

probability of doing research in the future (Hu, Kuh, & Gayles, 2007, p. 167; Lopatto, 2004, p. 276); and added considerable impact to their resumes (Bentley, 1994, para. 10; Evans et al., 1981, pp. 99-100). They learned how much work research was, and they learned to work hard, focus, and cope with challenges (Lanza, 1988, p. 110; Lopatto, 2004, p. 276). Jones and Draheim (1994) noted that being an RA could open the student's eyes to future career prospects (p. 86).

The literature confirmed that researchers often mentored RAs (Benton, 2004, para. 5; Gift, Creasia, & Parker, 1991, pp. 231-232). Jones and Draheim (1994) stated, "Also worthwhile are the unexpected benefits that arise from the dynamics of the situation and the relationship between the professor and the student" (p. 89). The RA experience could create enthusiasm and inquisitiveness and knowledge about the research process (Kiemiesky, 1984; Lanza, 1988, p. 110; Lopatto, 2004, p. 276) and develop persistence (Hu et al., 2007, p. 168), confidence, and emotional maturity (Lanza, 1988, p. 110). Jones and Draheim reported an increase in self-confidence of the RA: "the enhancement of my library skills, writing ability, and knowledge or research methodology made me realize that I am capable of meeting the rigorous demands of graduate school" (p. 89). Hu et al. (2007) stated that, according to the Association of American Colleges and Universities, student-faculty research was "an effective educational practice" (p. 174); Pascarella and Terenzini (as cited in Jones & Draheim, 1994, p. 86) pointed to the students' enhanced learning; and the National Survey of Student Engagement (2010) included research with a faculty member as one of the

high-impact practices . . . [which] demand considerable time and effort, provide learning opportunities outside of the classroom, require meaningful interactions with faculty and students, encourage interaction with diverse others, and provide

frequent and meaningful feedback. Participation in these practices can be life-changing. (p. 22)

Jones and Draheim (1994) reported that “the student learned far more from acting as a research assistant than she typically had learned in the traditional classroom setting” (p. 94). Kinkead (2003) noted that undergraduate research was a way in which students could “feel more connected to their educational experience” (p. 9). Jones and Draheim pointed out the link between research activities and significance in the real world (p. 90). Kierniesky (1984) found that opportunities for students to be involved in research contributed to liberal education goals (p. 18), and his study 20 years later found “the increase in research activity in recent decades has . . . refocused the role of research to the more general liberal education values of critical thinking, independence and creativity . . . to develop liberally educated graduates” (Kierniesky, 2005, p. 89). Gonzalez (2001) stated,

In the knowledge-based economy, what students are capable of learning in the future is as important as how much they know when they graduate. Their ability to adapt quickly to new situations and to solve difficult problems is essential, and research skills greatly enhance that capacity. (p. 1625)

RAs appreciated the social benefits of working on a research project (Jones & Draheim, 1994, p. 94). They benefitted financially (p. 89), earned course credit for their activity (p. 89), or enjoyed volunteering without pay (Goss Gilroy Inc., 2005, p. 34).

The topic of undergraduate research gleaned some information that could be extrapolated for the RA. For instance, Stephens and Thumma (2005) reported on their experiences in collaborating on a digital history research project. The benefits aligned with those identified in the literature regarding RA benefits: learning how to do professional research, gaining confidence in library searches, use of interlibrary loans,

and reading microfiche and microfilm; an increase in self-confidence; and participation in a useful project with lasting value beyond university (p. 536). Similarly, reported faculty benefits aligned with those in the literature regarding faculty use of RAs: time saving, intellectually stimulating discussions, learning new ways to teach students, and re-evaluation of sources and presentation (pp. 537-538).

Benefits to faculty researchers. Faculty researchers benefitted through development of their mentoring and supervisory roles (Hutchinson & Moran, 2005, p. 4; Lancy, 2003, p. 87) and increasing the speed of their research (Hutchinson & Moran, 2005, p. 5; Jones & Draheim, 1994, pp. 87, 91). Jones and Draheim (1994) reported “some of the tasks that seemed dreary to me provided surprising benefits to her” (p. 91). Often the faculty/RA relationship moved from one of employer/employee to one of collaborators with a common goal (Jones & Draheim, 1994, p. 86) and from faculty/student to friends (Dolan & Johnson, 2010, p. 550; Jones & Draheim, 1994, p. 90), enabling RAs to work more effectively and to feel comfortable in giving feedback on the project. RAs became a sounding board for faculty, providing necessary feedback, increasing their motivation (Hutchinson & Moran, 2005, p. 6), and refreshing them (Jones & Draheim, 1994, p. 91). The use of RAs “allows faculty from a wide variety of disciplines to publish and teach simultaneously” (Jones & Draheim, 1994, p. 94).

Researchers experienced the positive aspects of their undergraduate student RAs’ youth (Jones & Draheim, 1994, p. 90; Krywulak & Roberts, 2009, pp. 31-32). RAs used media and technologies such as web designing in better ways, had advanced searching abilities on Google, were more willing to learn and more open, and came up with

unexpected results (Goss Gilroy Inc., 2005, p. 24). Levesque (2005), University Librarian at Thompson Rivers University, wrote,

Our university students represent a diverse mix of ages, cultures and experiences. They are onsite and online, on campus and at a distance, learning at work and at home. Don Tapscott calls today's students the NetGen. They are curious, self-reliant and able to adapt. He sees a real shift to interactive learning because of students' familiarity with technology and their use of it to learn and socialize. (p. 52)

In 2009, 98% of people aged 16 to 24 went online compared to 66% of those aged 45 or older (Statistics Canada, 2010, Other "Digital Divides" section, para. 3). Xu and Meyer (2007) found the "trend is for younger faculty being more comfortable with using technology as a tool to accomplishing their various teaching, research, and service tasks" (p. 50). According to Krywulak and Roberts (2009), both Boomers (aged 45-64) and GenXers (aged 30-44) value GenYers (aged 18-29) for their proficiency with technology (pp. 31-32).

Faculty and RAs help each other in mutually beneficial ways, such as the learning going "both ways" (Goss Gilroy Inc., 2005, p. 29) Researchers could use RAs to distance themselves from study participants in order to maintain their objectivity (Ponterotto, 2005, p. 131). Lanza (1988) pointed to the benefit to the institution, particularly in sciences, in student recruitment and in retention of undergraduate students' participation in faculty research (p. 110), an advantage that was also documented by Elmes-Crahill (1992, p. 19).

Research assistant challenges. Goss Gilroy Inc. (2005) outlined the challenge RAs face of not having enough time (p. 25). In addition, the time they do spend is often unreported. Benton (2004) wrote,

I was so grateful for the chance to contribute to faculty books that I sometimes underreported the hours that I worked. If it took me three hours to verify a short quotation, I might report the time as 30 minutes. I regarded the time for which I was not being paid as an investment in my reputation for efficiency. (para. 11)

Faculty challenges. The literature review uncovered that the use of RAs by researching faculty could engender a unique set of challenges, including: (a) recruitment (Evans et al., 1981, pp. 97-98; Gift et al., 1991, pp. 230-231; Goss Gilroy Inc., 2005, p. 27; Lown, 1993, p. 30); (b) the time it took to supervise them (Goss Gilroy Inc., 2005, p. 26); (c) defining their status and responsibilities (Goss Gilroy Inc., 2005, pp. 17-18; Hobson et al., 2005, pp. 359-361, 364); (d) establishing a pay scale (Hobson et al., 2005, pp. 363-365); and (e) monitoring and evaluation (Gift et al., 1991, pp. 232-233).

Specific challenges to using RAs in faculty research were identified in the literature as: possible lack of maturity, low interest and motivation, attendance problems, lack of research skills, loneliness due to isolation, resigning from the position and leaving the faculty in a difficult situation, space requirements, funding issues, and distraction due to other employment, family and friends, and studies (Lei & Chuang, 2009, pp. 237-238). Jones and Draheim (1994) raised the issue of RAs' use of time as a possible risk for researchers' deadlines (p. 93). Hutchinson and Moran (2005) listed additional issues, such as: increased potential for mistakes, not noticing important information and collecting irrelevant information, communication problems, and being slow or unreliable. However, they recommended a number of solutions that could minimize these potential difficulties, such as: early communication of deadlines; clarity of remuneration; setting workable timelines; ensuring the RA has access to photocopiers and computers; being clear about expectations and the objectives of the project; very frequent check-in with the

researcher; giving the RA consecutive small tasks; providing clarity on citation styles; listening to the RA's feedback; supplying a notebook for the RA to record their work, issues, discussion points, and decisions made; and establishing communication protocols (pp. 10-12).

Recruitment

Jones and Draheim (1994) stated,

Selecting a student assistant who is reliable, industrious, and compatible is probably the most difficult requirement of a successful partnership . . . high grades and outstanding intellect were much less important . . . than were the capacities to meet deadlines, work hard, and get along. (p. 93)

There are pros and cons in hiring RAs from a researcher's class (Gift et al., 1991, p. 230).

Landrum and Nelson (2002) noted that RAs are recruited by advertising, and many

researchers require a commitment of up to two years (p. 17). Gift et al. (1991)

emphasized the agreement or contract should specify the researcher's expectations of the

RA and the compensation. They stated, "It is important that all conditions are agreed

upon in a contract signed by both the RA and the PI [principle investigator]" (p. 231), and

they recommended issues such as deadlines, benefits, authorship, ownership of the data,

copyright, and patent should be documented (p. 231).

Training and Feedback

There is little information in the literature regarding training programs for RAs.

Gift et al. (1991) recommended an orientation period in which the RA does background

reading and becomes familiar with the "research protocol" (p. 231). They also suggested

meeting regularly and setting up a method of communication such as a logbook (p. 231).

Benton (2004) suggested RAs train incoming RAs (para. 28). Researchers may need to

demonstrate procedures or methodologies and use of equipment or software (Gift et al., 1991, p. 232). Provision of training may be required in literature reviews, library processes, ethics, data collection and recording, organization, writing and computer skills, team dynamics, and safety (Gift et al., 1991, pp. 231-232; Hutchinson & Moran, 2005, p. 4), as well as relationships with researching faculty and communicating in teams (Hutchinson & Moran, 2005, p. 3). The use of RAs, above all, should represent a commitment to building a team and mentoring future academics, researchers, and community members. Siemens (2009) emphasized the importance of team characteristics such as “responsibility, accountability, communication, and collaboration” (p. 227) as individuals work together, in contrast to the paradigm of the lone researcher. Siemens, Cunningham, Duff, and Warwick (2009) affirmed the wisdom of teaching RAs not only research skills, but also teamwork skills (p. 5).

The Association of College and Research Libraries (2000) included information literacy (i.e., the location, evaluation, and use of information) in their competency standards for students (p. 4). Stamatoplos (2009), in writing of the undergraduate researcher, conveyed the importance of librarians extending their expertise to both student researcher and mentor, similar to RAs and researching faculty benefitting from library skills training. He stated, “Information literacy seems to be either assumed or ignored. Ironically, students engaged in [research] activities may have greater and more complex overall need for quality information and evaluative skills than the average student engaged in course-related activities” (p. 239).

Gift et al. (1991) highlighted the need for training in ethical research standards and research practice (p. 229) and emphasized that training must include monitoring of

the RA's work, ensuring appropriate scientific rigor of the research procedures are adhered to, and guarding against an RA's inadvertent or purposeful destruction of data, by storing raw data securely and making backups of computerized data (p. 232). There is a need for more research specific to RA training needs, which should be tied to a clear job description to ensure consistency and accountability for both RAs and researchers.

Training of researchers is also mentioned in the literature. Goss Gilroy Inc. (2005) found a need for the creation and posting of "an online training program for researchers on how to supervise research assistants" (p. 31). An Association of College and Research Libraries' (2007) White Paper stated,

Library staff must be capable of working effectively in partnership with faculty members to enhance the strength of teaching and research. . . . Part of the skills library staff must develop is the ability to educate faculty members, helping them to understand the power and applicability of resources and modes of inquiry. (Library Professionals section, para. 2)

Lown (1993) recommended that researchers discuss with RAs how they will be evaluated (p. 30), and both Goss Gilroy Inc. (2005, p. 29) and Hutchinson and Moran (2005, p. 1) found that expectations should be clearly outlined early in the process. Gift et al. (1991) stated, "Feedback, in the form of formal and informal evaluation, is an ongoing process throughout the course of the research project" (p. 232) and should include appraisal of the RA's data collection, analysis, behaviour in team meetings, and self-evaluation (p. 232). RAs could be required to keep a diary to document their work. A record such as this could assist in any discussions with the researcher and become a tool for reflection (Hutchinson & Moran, 2005, p. 11).

Relationships in the Researching Community

The interactions of the primary stakeholders involved in faculty research, such as RAs and researching faculty are important to the success of the projects. Wheatley and Kellner-Rogers (1996) stated, “Relationships are the pathways to the intelligence of the system. Through relationships, information is created and transformed . . . and the enterprise becomes wiser. The more access people have to one another, the more possibilities there are” (para. 18).

Connectivity and Communities of Practice

Jones and Draheim (1994) found that developing the faculty/student relationship to one of friendship enabled the RA to be more comfortable in communicating uncomfortable facts (p. 90). Collaboration helps organizations deal with increasing complexity by capitalizing on individuals’ strengths (McGehee, 2001, p. 55) and creativity (p. 53). Kouzes and Posner (2007) stated, “Collaboration is a critical competency for achieving and sustaining high performance” (p. 224). Baker (2003) contended that alliances, such as that of RAs and researching faculty, can greatly multiply an organization’s effectiveness (p. 12). Electronic networking is valuable to RAs (Goss Gilroy Inc., 2005, p. 31). However, Siemens (2009) held that “the digital cannot replace the many benefits that flow from in-person interactions, including the development of positive working relationships” (p. 231).

The benefits of recognizing and encouraging communities of practice have been established in the literature (Wenger, McDermott, & Snyder, 2002, p. 5; Wenger & Snyder, 2000, para. 13). Coming together as a group in a community of practice is an effective way of generating enthusiasm, excellence and feelings of belonging.

The term *community of practice* is of relatively recent coinage, even though the phenomenon it refers to is age-old. The concept has turned out to provide a useful perspective on knowing and learning. A growing number of people and organizations in various sectors are now focusing on communities of practice as a key to improving their performance. . . . Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. (Wenger, 2006, para. 1-2)

The community of practice enables members who participate in similar activities to assist each other and share information in a forum through which members learn from one another and develop better practice (Kerno & Mace, 2010, p. 79).

Mentoring

Landrum and Nelson (2002) described a “mentor-colleague model . . . with students working closely with faculty on research” (p. 17). The researcher-mentor helps RAs to increase their research abilities through close “interaction and collaboration [which] may include joint authorship of papers or the use of data for secondary analysis” (Gift et al., 1991, p. 232). As well as encouraging growth and development of RAs’ skills, researchers should be role models and “act as mentors and see students as collaborators, not merely part of a task associated with a larger project” (Siemens et al., 2009, p. 7). In addition, researchers should be aware of the need to support RAs when they feel overwhelmed or frustrated, particularly when they interact with emotional participants (Gift et al., 1991, p. 232). Mentoring should not be confused with micro-managing the RA, which would negatively affect the learning experience and feelings of self-sufficiency, in addition to negating the time-savings for the researcher (Jones & Draheim, 1994, p. 93). Lanza (1988) confirmed that undergraduate researchers learn more from experiencing their mistakes and having to deal with them than being told what to do and how to prevent errors (p. 111). Jones and Draheim (1994) pointed out that an

RA who is involved in a writing project can observe how revisions improve the document's clarity and meaning and apply this skill to their own writing (p. 88). Gift et al. (1991) stated, "It can be very rewarding to the PI [principle investigator] to use students as research assistants and serve as a mentor for these novice researchers" (p. 231).

Valuing Research Assistants

Employees need to feel valued (Benton, 2004, para. 28, 30). Nelson (2002) reported that over 90 percent of employees he studied expected to be recognized by their employer when they did well (p. 18). Employers have found that recognizing their contributions and good performance increases an employee's motivation and performance and gives them positive feedback (p. 18). Kouzes and Posner (2007) suggested bringing food to meetings (pp. 319-320) to show appreciation. Benton (2004) asserted, "Professors should . . . acknowledge everyone who worked on a project" (para. 28).

Organizational Change Initiatives

Policies pertaining to RAs are important in order to formalize the processes. Processes that encourage fairness and equity in recruiting, hiring, and pay practices reduce the organization's risk of legal challenges. The information uncovered in my literature review could be used as a basis for discussions with the stakeholders at Kwantlen, to explore RAs' experience at the university and to identify elements for building an effective and satisfying system. Yukl (2010) described Lewin's three-step change process: (a) unfreezing, where the status quo is seen to be inadequate; (b) changing, where investigations of alternatives result in a choice of action; and (c) refreezing, where this new way of doing things becomes the new status quo (p. 169).

Wheatley and Kellner-Rogers (1998) wrote about the irony of living in a world of constant change and “continuous creation” (para. 7), yet struggling to effect change in our organizations:

Enormous struggles with implementation are created every time we deliver changes to the organization rather than figuring out how to involve people in their creation . . . those connections stimulat[e] the creation of new information . . . [and] become primary tasks for fostering organizational change. (para. 23, 34)

I explored the concept of inter-departmental cooperation and partnerships to enable the use of expertise for a common goal such as the training of RAs. Senge (2006) described how organizations typically are “designed to keep people from seeing important interactions. One obvious way is by enforcing rigid internal divisions that inhibit inquiry across divisional boundaries” (pp. 66–67). Focusing on a collaborative approach to both investigating issues and implementing solutions would enable Kwantlen to achieve what Kouzes and Posner (2007) described as transformational change, where people “infuse their energy into strategies” (p. 122) to establish RAs as visible members of Kwantlen Polytechnic University, employed and trained to assist in research and recognized by the institution.

Renewal of organizational processes has been explained within a 4I sub-process framework of intuiting and interpreting at the individual level, interpreting and integrating at the group level, and integrating and institutionalizing at the organizational level (Crossan, Lane, & White, 1999, pp. 524-525). Bridges and Mitchell (2000) noted that change is external, but transition is internal. This psychological process takes time and involves three painful steps: (a) let go of past experience or identity, (b) move into experiencing ambiguity yet open the door to profound transformation, and (c) then

establish a new way (p. 32). Bridges (2003) stated there could be a number of transitions that take years to complete. Unless the transitions make sense, people will repel them and resist change and growth (p. 82). Bridges and Mitchell warned that it is not the changes but rather the transition that could make the change unsuccessful (p. 32). Dealing effectively with the processes of change requires good communication, thorough planning, intuitive understanding, honouring the past and allowing grieving to occur, and then articulating and modeling the necessary new attitudes and actions (pp. 34-35). Marshak (1993) noted that in transformational organizational change, there was “an alteration in the state of being, as in becoming a fundamentally different kind of organization” (p. 48).

During my literature review, I learned about the scope of work done by RAs. I discovered some of the benefits for both RAs and faculty of utilizing these assistants. The challenges inherent in adding this member to the research team were recognized to be outweighed by the benefits. There did not seem to be much scholarly literature regarding the human resources aspects, such as standardized wages or working conditions, and training programs, or the need to capitalize on self-supportive research communities. My research endeavored to inquire about these topics to inform the Kwantlen researching community and improve the RAs’ experience. Hobson et al. (2005) expressed this well:

In an era where innovation and knowledge production have an increasing value to nations and a financially measurable value to universities, the relative worth, recognition, and remuneration of research assistants might be expected to rise. There is, however, no clear, consistent progression pathway for research assistants, placing a structural obstacle to the development and recognition of the research assistant’s skills and contribution to knowledge production. . . . We have raised various questions here in hope that others will also pursue the many issues that are faced by knowledge workers—research assistants among them—within the opportunities offered by the developing knowledge economy and an evolving higher education sector. (p. 365)

CHAPTER THREE: INQUIRY APPROACH AND METHODOLOGY

In this chapter, I provide information about the inquiry approach and methodology utilized in the study. A description of the participant groups is given, in addition to the tools used to collect the data and the steps taken in the collection and analysis stages. I also discuss the ethical issues I considered in the organization and implementation of the inquiry.

Inquiry Approach

My question was, “How does a new, small polytechnic university with a teaching focus maximize the potential of undergraduate student research assistants?” RAs were hidden away in departmental pockets throughout Kwantlen. The institution’s newly-adopted mission and mandate (KPU, n.d.c) has stated that Kwantlen honoured and rewarded scholarship. The honour and support of scholarship required the examination of how RAs were managed. I determined that a methodology incorporating the harnessing of participants’ expert knowledge and experience should be utilized. During the course of the research project it was necessary for me to be aware of the organizational structure and culture; to honour it while identifying critical organizational change that could occur. It was also necessary to respect the organization of RAs and researchers in order to be given the freedom to enter their world as a guest and as a fellow inquirer.

Action Research

The inquiry approach in this organizational leadership project employed action research, “learning in action . . . engaging in cycles of action and reflection; and being active and receptive” (Coghlan & Brannick, 2005, p. 33). Action research has been defined by Stringer (2007) as:

A systematic approach to investigation that enables people to find effective solutions to problems they confront in their everyday lives. . . .[It] provides the means by which people . . . may increase the effectiveness of the work in which they are engaged. It assists them in working through the sometimes puzzling complexity of the issues they confront to make their work more meaningful and fulfilling. (p. 1)

This choice of action research allowed involvement of all primary stakeholders, incorporating cycles of “planning, action and critical reflection” (Dick, 1998c, para. 3) as the research progressed. Lomax (2007) warned the cycle does not always occur as smoothly as illustrated (p. 157), but that, indeed, mirrored life in a more realistic manner than traditional research could do. Glesne (2006) described action research as “collaborative and inclusive of all major stakeholders with the researcher acting as facilitator who keeps the research cycles moving” (p. 17). Exploring within an interacting cycle of “look, think and act” (Stringer, 2007, p. 8), I was hopeful that all research participants would not just expose possible issues, but would, through progressive discovery, see possibilities for positioning this group as a visible segment within the larger Kwantlen community and maximizing their effectiveness by defining areas for potential growth and operational improvements.

Hawkins (2004) stated that members of an organization (i.e., a research lab consisting of RAs and researchers) do not see the entire picture, since “their attempts to see their own culture will be through the lenses that are also the culture” (p. 413). Similarly, an outsider (i.e., me) will not fully comprehend it, as “the culture is communicated differently to outsiders than insiders and the richness of the culture has to be experienced through deep participation” (pp. 413-414). To surmount this perceived contradiction, a “rigorous discipline of action research that combines both internal and

external perspectives and transcends the limitations of both through a process of dialogue and challenge between different system positions [is required]” (p. 414).

Lomax (2007) mentioned the importance of values in educational leadership and the flexibility of action research to incorporate “a value dimension in its theory and method” (p. 160). In using action research, I explored whether Kwantlen’s stated and implicit values were evidenced in its practice. Coghlan and Brannick (2005) depicted the action researcher as actor-director (p. 7), reminding me that in the organizational leadership project, I was both integral participant and observer/interpreter. Through collaborative practice, I hoped to assist in identifying potentially useful organizational change, enabling Kwantlen to align its practice with its values.

Appreciative Inquiry

I approached the project and crafted my questions with an appreciative inquiry (AI) focus. AI is

based on the concept that moving forward for an organization requires the positive energy and contributions of all organizational stakeholders. . . . AI involves designing a participatory process of asking the right questions that open the door to listening to an organization’s stakeholders, and thereby generating positive energy and goodwill. AI is therefore about listening to stakeholders tell stories and anecdotes about positive incidents in their connection to a program or organization, and helps participants to express their wishes for future changes. (Agger-Gupta, 2010a, p. 1)

The decision to use an AI approach was influenced by the realization that I had been looking at the subject of RAs as a problem to be solved rather than an opportunity to explore the multi-faceted arena with those who cared the most: (a) to discover together what was valued and what was being accomplished despite potential challenges, and

(b) how the future could unfold given the appropriate attention, commitment and resources.

The “5D Organizational Change Model” (Agger-Gupta, 2010b, p. 5) incorporates a process of define, discover, dream, design, and destiny to explore issues and learn, together with others, with the goal of seeing opportunity rather than problems. It assists participants to reflect, remember stories, and move forward to create positive change. Cooperrider and Whitney (2005), who used the 4D approach of discover, dream, design, and destiny (Chapter 3, para. 2), defined AI as:

the cooperative, coevolutionary search for the best in people, their organizations, and the world around them. It involves systematic discovery of what gives life to an organization or a community when it is most effective and most capable in economic, ecological, and human terms. In AI, intervention gives way to inquiry, imagination, and innovation. Instead of negation, criticism, and spiraling diagnosis, there is discovery, dream, and design. (Chapter 2, para. 4)

The project is based on this framework: one which is cyclical in nature. As change occurs, effects of the cycle continue to make an impact on the organization.

Project Participants

Stringer (2007) verified that an early task of the researcher is to identify who will be included as participants. Though random sampling is used in quantitative methods, the participants of action research and qualitative methods are chosen using “purposeful sampling that consciously selects people on the basis of a particular set of attributes” (p. 43). With action research, the prime attribute is “the extent to which a group or individual is affected by or has an effect on the problem or issue of interest” (p. 43). Palys and Atchison (2008) suggested that instead of a large, representative sampling, I could be more strategic, using people (e.g., RAs and researching faculty) who are either

very experienced or a novice in the circumstance or element to be researched (p. 41).

Therefore, I chose to invite participants from two groups: RAs and researching faculty who use RAs. I decided to limit these participants to those who were presently in these categories or had been so in the past three years.

The sizes of the study pools were unknown given the current unstandardized procedures regarding research. The RA work group size was not known due to variances in hiring practices. The process of hiring RAs occurs within a non-standardized hiring process, and final numbers of RAs are not organizationally available. Through the Payroll department's Operations Manager, I was able to determine that there were 91 RA contracts issued between March 21, 2010, and January 23, 2011 (personal communication, February 14, 2011). However, I discovered that there could be student assistants also working with researching faculty (Human Resources Services, personal communication, February 28, 2011). Student assistant positions are different from RA positions, who happen to be current students; the former are hired throughout the university under the auspices of the staff collective agreement and paid minimum wage. There were 15 volunteers for the two RA focus groups. The number of faculty presently doing research at Kwantlen has not been published. In 2010, 54 research proposals were submitted to the Kwantlen REB (REB Chair, personal communication, February 20, 2011); however, the specific number of Kwantlen faculty researchers represented in any given year has not been published. Therefore, I could not determine the size of the data pool for researcher participants. Five researchers attended the faculty focus group, and three agreed to interviews. Within a group of three potential respondents, one interviewee was an administrator who does research.

Research Assistants

I hoped to recruit RAs from faculties that had research occurring and where RAs are employed, to participate in a focus group. I considered these participants as experts in the context of my study. Since the profile of RAs was so low, it was difficult to find them in the university. My perception that most RAs were working within Social Sciences was borne out, but some RAs were also in Nursing, the School of Business, and Kwantlen's Institutes. Regardless, the number of faculties using RAs in research was lower than I expected. For instance, I did not find any RA use in the Sciences apart from the Institute of Sustainable Horticulture.

I found RA participants by various methods. I advertised in the student on-line and print newsletters and submitted an announcement to the Kwantlen on-line forums. I networked with the Office of Research and Scholarship (ORS) Executive Assistant and Administrative Assistant, as well as various departmental administrative staff. I spoke with researching faculty members regarding their own focus group and let them know I was holding one for the RAs as well. I also checked on current researching activities documented on the ORS website. I created a poster to advertise the focus group and posted it where RAs could potentially gather. I also sent the poster electronically to various staff and faculty contacts throughout the institution. Most successful was researching faculty encouraging their RAs to participate. One researcher asked his lab coordinator to invite the RAs. The RAs who were interested emailed me, or their email addresses were provided by the lab coordinator.

The Industrial Society (1997) suggested, "It is advisable to over recruit slightly to allow for dropouts, say ten to twelve recruits to get six to eight participants, this being the

ideal number as a rule of thumb” (p. 31). What occurred was rather surprising: I had a good response for the RA focus group, with 11 committed to attending. However, there were some RAs who were disappointed they could not attend at the scheduled date and time. I received REB approval from both Royal Roads University and Kwantlen to conduct a second focus group of RAs. Altogether, 15 RAs committed to attend one of the focus groups. While one was not able to attend due to a scheduling conflict, an unexpected RA arrived. The result was no difference between the number who committed to attending and the number of participants. The level of commitment to attend and participate fully was outstanding. Participants in the two RA focus groups were working on research projects in Psychology (seven RAs), Business (one), Sociology (one), Nursing (two), and a Kwantlen Research Institute (one), as well as three RAs who were working on a project set up at Kwantlen by a partnership between several post-secondary institutions and three community organizations. Most were currently working as RAs, and two were former RAs. Ten were female, and five were male.

Researching Faculty

I planned to interview in a focus group up to eight researching faculty members who were using RAs or had done so in the last three years. I was interested in their perspectives on the hiring, training, and use of RAs at Kwantlen. To recruit participants, I submitted an announcement to the Kwantlen on-line forums and networked with ORS and departmental administrative staff. In my recruitment announcements, I asked researchers who had RAs currently or in the last three years to phone me at home or email me. Some researchers phoned, others emailed, and one spoke to me in person. I set up a distribution list of interested faculty and blind-copied them regarding the

arrangements. Using Doodle, a free scheduling software programme, I attempted to find a common available time. This proved to be difficult, as expected in my planning stage, so I set up a focus group for the time most could attend and organized interviews for the rest. Five researchers committed to attend the focus group, and all did so. They came from various faculties: Sociology, Psychology, Nursing, and School of Business. One was involved in the community partnership project mentioned above. Three were male and two female.

I arranged an interview with a researching administrator who responded to my call for participants in the faculty focus group. In addition, I conducted separate interviews with two researchers whose schedules prevented them from participation in the focus group. This proved to be a nice counterpoint to the focus group. The interviewees included researchers from Psychology and the community research project, as well as a Research Institute, and all were male.

Inquiry Methods

This section includes information about my data collection tools, the procedures by which I conducted my research, and how I conducted the data analysis. Glesne (2006) stated that “qualitative researchers . . . seek to understand and interpret how the various participants in a social setting construct the world around them. To make their interpretations the researchers must gain access to the multiple perspectives of the participants” (pp. 4-5). The researchers “look for patterns, but they do not try to reduce the multiple interpretations to a norm” (p. 5). Glesne said,

The research methods you choose say something about your views on what qualifies as valuable knowledge. . . . Qualitative research methods are used to understand some social phenomena from the perspectives of those involved, to

contextualize issues in their particular socio-cultural-political milieu, and sometimes to transform or change social conditions. (p. 4)

Data Collection Tools

The use of qualitative tools enabled me to investigate RAs within their environment at Kwantlen and to include them in the examination of their experiences. The other prime stakeholder group, comprised of researching faculty, was included in my inquiry to enhance the picture of RAs at Kwantlen. I used letters of invitation for the focus groups of RAs, the researching faculty focus group, and the interviews. Informed consent forms (see Appendices A, B and C) were signed before each focus group or interview. Draft questions for the RA focus group were tested by using a volunteer former RA who was out of the country and unable to attend, but wanted to help. The focus group questions are listed in Appendix D. The faculty focus group and interview questions (see Appendices E and F) were not tested. I chose to take notes during the focus groups and interviews and to ask participants to subsequently sign off on each page. Palys and Atchison (2008) warned that “the permanence and unforgiving accuracy of tape may inhibit candour” (p. 158). I predicted that by avoiding intrusive mechanical recording and visibly writing down summaries of what was being said, the resulting group dynamics and feelings of comfort would produce a more interactive and collegial arena, and this did occur.

Focus groups. Chiu (2003) wrote that focus groups can be used as “a systematic and focused way of managing the change process through problem-solving, decision-making and reflection” (p. 180). I chose to use focus groups as a research method to bring RAs together from various departments, to explore their common and differing

experiences, and to involve them in the possibility of creating a dialogue within the institution. I also planned to use a focus group, if possible, to make use of the faculty members' experience and active engagement in both research and the Kwantlen community. I predicted there could be difficulty in arranging a suitable time for the busy researchers to meet, but decided to attempt to arrange a focus group and either augment or replace it with faculty interviews. Though both Stringer (2007, p. 73) and Palys and Atchison (2008, p. 158) described focus groups as a group interview, using this method goes beyond the interview to harnessing the group dynamics that occur. Morgan (as cited in Palys & Atchison, 2008) believed that focus groups enabled the participants to discuss their opinions and "differences between perspectives can be highlighted and negotiated" (p. 159), while Ribbins (2007) wrote, "The key objective of a focus group interview is to achieve an accurate representation of the views of the group as a whole" (p. 212). Morgan (as cited by Palys and Atchison, 2008) believed that focus groups provided an opportunity to "witness . . . extensive interaction on a topic within a relatively limited time frame" (p. 159). A disadvantage of focus groups is the possibility for participants to be reluctant to share their true thoughts or feelings publicly, especially if they are different from those of the majority (pp. 159–160).

Fontana and Frey, (as cited in Palys & Atchison, 2008) confirmed that three skills are necessary for the focus group interviewer: (a) keep individuals or small groups from dominating the discussion; (b) encourage quiet participants to give their opinions; and (c) ensure the whole group responds to answer the questions (p. 160). The leader in a focus group, as opposed to an interview, becomes a facilitator of the discussion that occurs between participants (p. 160). By involving faculty in a focus group after the RA

focus groups had occurred, I was more fully informed of the issues introduced by the RAs. My perception of the three focus groups that I arranged was that, in addition to the sharing of experiences, collaborative problem-solving, and collective visioning, the focus groups served to bring RAs and then researching faculty together in a prelude to what could become a community of practice (Wenger et al., 2002, p. 4). This concept is explained in more detail in the Study Recommendations section of chapter five.

I used focus groups in my project to gather data from both RAs and researchers. Palys and Atchison (2008) stated that results can be more affected by the focus group participants than by the researcher (p. 160). Acting on Ribbins' (2007) stance, as facilitator, I also encouraged the group to interact and bounce ideas back and forth, adding to the substance as the conversation proceeded (p. 212).

Data collection for the focus groups consisted of using flip charts to record participants' opinions. I received permission from the participants to paraphrase their comments. They were asked for their sign-off signatures on each flip chart sheet before they left.

Interviews. Stringer (2007) called interviews "guided reflection . . . a reflective process that enables the interviewee to explore his or her experience in detail and to reveal the many features of that experience that have an effect on the issue investigated" (p. 69). The scheduling of interviews assisted me in collecting data from busy researchers whose schedules disallowed participation in the researcher focus group. Though the questions I asked were the same as those of the faculty focus group (see Appendix E), I could "be open to any new directions that [emerged] in the context of the interview because of the unique perspective of the participant(s)" (Palys & Atchison, 2008, p. 157)

and the one-on-one setting. I wrote down the answers given by the participants and assured accuracy by asking them to read and sign off on the data at the end of the interview. Sign-off on the data for the telephone interview was done on another day, in my office.

With interviews, it is important to establish a rapport with the interviewee, while at the same time ensuring neutrality with regards to the subject being examined (Ribbins, 2007, p. 216). According to Palys and Atchison (2008), face-to-face interviews have high rates of participation, enable clarification to be sought on the spot, and have potential for good relationships and follow-up (p. 157). Ribbins (2007) warned that “complex questions, particularly those raising multiple themes, can be discouraging and confusing” (p. 216). Difficult questions can be raised by asking the interviewee to describe “what usually happens” (p. 216).

Study Conduct

The study was organized in order to gather data from two primary groups of inquirers in research projects occurring at Kwantlen: RAs and the researching faculty they work with. I ensured a cross-section of faculties became involved by seeking out the disparate pockets of RAs and professors carrying out research throughout the multiple campuses of the institution.

Focus group of RAs. The focus groups of RAs served to bring individual RAs together for the first time in the history of Kwantlen. This encouraged observable change even in the research stage. The RAs came out of their silos and into a forum where their interactions with one another produced more than ideas. It encouraged a collegial connection that supported an increased sense of group identity. I had anticipated the

process of facilitating a focus group with the RAs would begin a networking opportunity for them where they began to see themselves as an identifiable group within the organization. Coghlan and Brannick (2005) stated, “In action research data comes through engagement with others in the action research cycles. Therefore, it is important to know the acts which are intended to collect data are themselves interventions” (p. 99). Through my inquiry, the focus groups allowed RAs the potential to be integral to both information-gathering and change-making within the institution. It served to elevate their presence by shining a spotlight on them and their work, and the results demonstrated their group needs attention.

I set up email distribution lists for the two focus groups and blind-copied participants regarding logistics, such as ensuring they had no dietary restrictions and reminding them about the focus groups. I booked a meeting room next to the ORS and set up a flip chart and tables for participants, consent forms, and refreshments. The RAs were asked to sign an informed consent form (see Appendix A) before the focus group started. They were informed of my intention to use flip charts to record their opinions, and I received permission to paraphrase their comments. They were asked for their sign-off signatures on each flip chart sheet before they left. Mansell, Bennett, Northway, Mead, and Moseley (2004) mentioned the value of offering a lunch to attract good attendance (p. 83). I advertised that a lunch would be served, but felt it was not the main reason the RAs attended. Rather, it helped to make everyone comfortable and provided sustenance for those who were on tight schedules. The number of questions (see Appendix D) proved to be too many for the two hours allotted for the focus groups. At the two-hour

mark, I asked the participants what they wished to do, and all, except two who needed to leave for work, wanted to continue to the end.

Focus group of researching faculty. I then interviewed five faculty members in a focus group. I booked the same room as I had for the RA focus groups and set it up for the smaller number of participants, with a flip chart and tables for consent forms and refreshments. Each focus group participant was given an informed consent form (see Appendix B) before I proceeded. Their privacy and the confidentiality of my processes were discussed, as well as my intention to record their answers to my questions on a flip chart. I received permission to paraphrase their comments and asked for their sign-off signatures on each flip chart sheet before they left. Again, the number of questions (see Appendix E) was too many for the two-hour focus group, even with only five participants. A suggestion was made for me to email the rest of the questions. I subsequently received answers from four of the five participants. One advantage of this outcome was having verbatim quotes to use in this report to augment the flip chart summaries (Ribbins, 2007, p. 213).

Interviews of researching faculty and administrator. I followed the faculty focus group with individual interviews of other researcher participants, due to scheduling challenges. Interviews were guided by the same set of questions as used for the focus group of researching faculty (see Appendix E). One interview was held in a Vancouver coffee shop, one in my office, and one over the phone because of scheduling difficulties. In the individual interviews, I wrote down the answers given by the participants and assured accuracy by asking them to read and sign off on the data at the end of the interview. The phone interview was preceded by the participant receiving a consent form

by email and assuring me that it had been signed before the interview commenced. Sign-off on the data and delivery of the consent form were done on another day in my office. Though Ribbins (2007) discouraged phone interviews because of the loss of body language and recommended only using the phone as a last resort (p. 213), I found this interview to be rich in data, and the communication was excellent.

Data Analysis

Analysis of the data collected from the three focus groups and three interviews commenced after transcribing all the data from the flip chart sheets and the interview sheets, as well as the emailed answers from the faculty focus group. Initial analysis was done manually. This was followed by further analysis using a free software programme called Weft QDA.

Stringer (2007) provided a framework for analysis of data that emerges from the research process. He stated, “All analysis is an act of interpretation, but the major aim in analysis is to identify information that clearly represents the perspective and experience of the stakeholding participants” (p. 98). He provided steps for both categorizing and coding the data, moving from reading all the data to see the big picture landscape, down to identifiable concepts, then down further to the details of categories and codes, seeing themes across participant groups (pp. 99-102), and analyzing key experiences of the participants (p. 103). These methods of interpretation and reflections proved to be suitable to my research question. I created a form that had columns for comments, themes, and additional notes. The use of Weft QDA provided an opportunity to look at the data in different ways, linking similar categories in the responses of both RA and faculty groups.

After manually theming the data and using Weft QDA to categorize the data and print out the results, I provided an opportunity for the RAs to participate in further analysis of the data collected during their focus groups. Stringer (2007) addressed interpretation of the data in helping participants “make better sense of their experiences” (p. 96). Dick (1998d) stated, “I can involve the informant in interpreting information as well as providing it. This may help protect me against some of the mistaken interpretations I might otherwise adopt” (para. 7). I invited the RAs to meet with me to assist in theming and analysis. However, the data analysis stage coincided with exams, and, though some participants had previously indicated an interest in helping with the analysis, they were not able to do this in addition to their busy work and exam schedules. After consultation with my supervisor, I continued the analysis until I had a clear perception of the major themes and subthemes. I emailed these to all participants, using the blind-copy line. This enabled me to assure accuracy and agreement. All respondents to my email agreed with the themes and subthemes. I found the organization of the findings chapter created a need to further analyze the data in order to present it in a logical sequence. Authenticity and trustworthiness of the data was further addressed by checking back with participants when I had completed the findings section by emailing it for comment.

Herr and Anderson (2005) wrote about data analysis of action research as a continuous cycle, in which data analysis “begins immediately and guides further data gathering and decision making” (p. 80). They described the process of many-layered data analysis: “the initial meaning making, including some decisions regarding directions for interventions or actions; and then a revisiting of the data for a more thorough, holistic

understanding” (p. 81). During the writing of this report, I found myself revisiting the data analysis continuously in order to not only ensure accuracy, but to assist in developing recommendations.

Glesne (2006) warned action researchers that after data collection, they will feel overwhelmed by the volume of “fat data” (p. 151). Glesne recommended keeping the data organized during the collection phase by writing notes to oneself; filing information by themes, thoughts, and quotes; and doing some initial coding (pp. 148-151). Coding is done first, and then data is divided into “clumps” for more breakdown and explanation (p. 147). Coding begins with reading all collected data and giving a name to items that seem important, but keeping the data in context to assist in future understanding. Then data clumps are arranged into a logical sequencing, allowing time for reflection (p. 154), deeper understanding of the data, and the “larger meaning” (Creswell, 2009, p. 183).

Ethical Issues

This proposal was sent to the Royal Roads University’s Research Ethics Board (REB) for ethics approval. Then it was submitted to the Chair of Kwantlen Polytechnic University’s REB for expedited approval. Both universities had research policies that were adhered to during the entire project (KPU, 2009b; Royal Roads University, 2007). In order to conduct research at my organization, it was necessary to examine the ethical considerations and guiding principles outlined in the Canadian *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research, Natural Sciences and Engineering Council of Canada, and Social Sciences & Humanities Research Council of Canada [Tri-Council], 1998).

Core Ethical Principles

Respect for human dignity. I endeavored to conduct myself in such a way that all participants were honoured and respected physically, culturally, and psychologically. I was mindful of their busy lives and the impact their volunteer participation had on their workloads.

Respect for free and informed consent. Each research participant was given a clear opportunity to consent to their participation in the research. I ensured that each participant understood the voluntary nature of their involvement and that they had the right to withdraw without prejudice at any point in the research. I was mindful that my enthusiasm could have been perceived as coercion and thus guarded against any undue influence on my part for them to participate.

Respect for vulnerable persons. I ensured that participants of the RA focus group were 19 years of age or older by including this in the informed consent form (see Appendix A).

Respect for privacy and confidentiality. In order to ensure the privacy of participants and the confidentiality of their opinions, I have removed all identifying information from the published data. The raw data were collected during focus groups without recording the identity of respondents other than RA or researcher. Interview notes included the interviewees' names, but they have not been transferred to this report. Focus group participants were asked and agreed to maintaining confidentiality outside the group and interviewees, outside of the one-on-one conversation. The data are being kept in a manner that ensures no access by unauthorized individuals.

Respect for justice and inclusiveness. I ensured a cross-section of disciplines was represented in the data-gathering stage by using a variety of recruitment methods. I communicated with all participants before the focus groups or interviews to ensure they were equally aware of the logistical details.

Balancing harms and benefits. I was vigilant to ensure participants experienced no harm during my explorations, research methods design, and research period. In addition, I ensured that neither my organization nor its employees were exposed to harm in regards to their reputation.

Minimizing harm. As there are a limited number of potential participants in my research topic, my main concern was to recruit RAs from across disciplines. The involvement of research participants was necessary to the research and no more participants than was necessary were involved.

Maximizing benefit. I anticipated the results of my research would be of benefit to existing and future RAs at Kwantlen and to the university. There could be value to other post-secondary institutions that are increasing their research mandate and addressing how best to position, train, and utilize RAs. As Stringer (2007) stated,

Action research outcomes apply only to the particular people and places that were part of the study. That does not mean, however, that nothing . . . is applicable to others. It indicates . . . the need for procedures that carefully explore the possibility that the outcomes of an action research study may be relevant elsewhere. (p. 59)

Researcher Subjectivity

I believe it is virtually impossible to be completely objective in research. Even in quantitative research, the inquirer brings a perspective to the project. Coghlan and Brannick (2005) stated that “the researcher is an integral part of the research process, not

separate from it” (p. 6). Stringer (2007) affirmed the roles of researcher and other stakeholders in perception, interpretation, and response to the issue being investigated (p. 9). Dick (1998b) mentioned the necessity of checking these perspectives and dealing with our biases during action research and ensuring we do not discount evidence that fails to support our biases (para. 7). He emphasized critical thinking in our research process, looking at our own interpretations, and being open to others (Dick, 1998a, para. 8). To mitigate undesirable effects of the researcher’s subjectivity, Dick (1998e) posited,

theory grounded in experience . . . can to some extent integrate the subjective and the objective. The participants invest the theories with their own values and meanings. At the same time the theories gain objectivity in its most pragmatic sense by being tested against reality through action. (para. 1, 5)

As an “insider researcher” (Coghlan & Brannick, 2005, p. 39) whose employment role did not connect with RAs, I considered myself also as an outsider, one who learned as I inquired. Coghlan and Brannick (2005) stated that as an “insider action researcher, [a critical skill] is to be able to combine advocacy with inquiry, that is to present your own inferences, attributions, opinions and viewpoints as open to testing and critique” (p. 39). At the same time, I came as an outsider who was not initially knowledgeable about the variety of RA positions at Kwantlen.

I identified myself in my invitations and consent forms as an action researcher who, though employed in the library of Kwantlen Polytechnic University, was a fellow learner from Royal Roads University. I began the project with few preconceived ideas about RAs due to my work being outside their perimeter. The participants’ perception that my agenda was that of a learner/inquirer was expedited by their own researching activities and understanding.

CHAPTER FOUR: ACTION INQUIRY PROJECT RESULTS AND CONCLUSIONS

In this chapter, I present the results of the study that examined the question, “How does a new, small polytechnic university with a teaching focus maximize the potential of undergraduate student research assistants?” In the first section, I will provide the findings that emerged during my data collection and analysis. The conclusions I reached based on the research and analysis will be presented in the second section. The third section will document the limitations that should be considered in applying the findings and conclusions of this study.

My broad research question asked, “How does a new, small polytechnic university with a teaching focus maximize the potential of undergraduate student research assistants?” This was broken down into the following more specific sub-questions:

1. What is the current relationship between Kwantlen and undergraduate student RAs?
 - a. How are RAs managed currently at Kwantlen?
 - b. What is expected of undergraduate student RAs in their job duties?
2. Organizational change: How can the undergraduate student RAs be integrated into Kwantlen’s learning community?
 - a. What process should be followed for managing undergraduate student RAs for the benefit of all stakeholders?
 - b. What do undergraduate student RAs need from the Kwantlen community in order to do their job effectively?
 - c. How do other small teaching universities manage RAs?

Study Findings

Three key findings emerged during my data collection and analysis:

1. Research assistants and faculty experience beneficial outcomes from employment of RAs
2. Relationships are central to beneficial outcomes
3. Kwantlen has organizational gaps that greatly affect the potential of undergraduate student RAs

These findings are presented using summarized statements in accordance with the approved research proposal. All participants agreed to the paraphrasing of their comments and signed off on each page of notes. Direct quotes are taken from emailed answers to the questions that remained unanswered at the end of the two-hour mark in the faculty focus group. Four of the five faculty focus group participants gave emailed responses.

Finding 1: Research Assistants and Faculty Experience Beneficial Outcomes from Employment of RAs

Kwantlen RAs and researchers detailed many benefits derived from the work accomplished by RAs. These were in line with the literature review outlined in chapter two (Bentley, 1994; Evans et al., 1981; Gibson et al., 1996; Jones & Draheim, 1994; Landrum & Nelson, 2002; Lei & Chuang, 2009). I identified the following themes that emerged within finding one: (a) student development, and (b) faculty researchers' experience enhanced.

Student development. Overall, the benefits mentioned by RAs emphasized the immediate gains, as well as assistance in educational and vocational decisions, while

faculty emphasized the bigger picture of preparation for life, including skills required for further education. This difference most likely reflected the immediacy of students' learned skills and their concern for the imminent choices they must make versus the researchers' perspective in seeing a number of RAs over the years develop competencies that prepared them for the future. Under the theme of student development, I identified subthemes of (a) transferrable skills, (b) putting learning into action, (c) career goal clarification, and (d) enhanced success in pursuing higher education.

Transferrable skills development. Both Kwantlen RAs and faculty reported RAs developing new and transferrable skills, such as literature searching, data analysis, questionnaire writing, and even money management. Kwantlen RAs said they learned how to deal with authority and also felt empowered to make things happen. Their statements showed the increase in self-confidence that had occurred as a result of working as RAs. The researchers believed RAs had opportunities to volunteer, co-author a paper or conference presentation, gain experience of the wider world, and to experience personal growth and the development of critical thinking skills.

Opportunity to put learning into action. Kwantlen RAs believed they were doing more than other undergraduate students, felt special, were more involved in school, and had a richer educational experience. Not only did the RAs value the acquisition of knowledge, but also the extension of their classroom learning to practical settings. This supported the greater emphasis being placed on work-based learning in Kwantlen's vision (KPU, n.d.f). Kwantlen faculty listed the benefits to RAs of gaining research experience and practical work in the field, seeing what research is like, generating ideas, and designing and testing studies.

Career goal clarification. Researching faculty often gave RAs help with their career and post-graduate questions and choices. The work experience also helped students to clarify the kind of work they liked and disliked. One participant reported changing from not wanting to do research to thinking that it was fascinating work that had real world significance. Kwantlen RAs felt they were able to improve their resumes, qualify for reference letters, and increase the scope of future employment opportunities. Researchers agreed that the work helped RAs to earn letters of reference and to advance their careers.

Enhanced success in pursuing higher education. Benefits mentioned by the Kwantlen RAs included improving their chances for acceptance into graduate school, reducing their anxiety about pursuing further education, and helping them to prepare for masters-level work. The faculty group also highlighted the benefit to RAs of being more qualified for acceptance into graduate school. Both Kwantlen RAs and researchers expressed the view that RAs' work enabled them to share credit for research and gave them opportunities for publication as well as attending conferences and presenting papers and posters. Researchers added that RAs had opportunities to collaborate with them or do independent analysis of data they were given and to contribute to building a body of knowledge.

Faculty researchers' experience enhanced. Kwantlen researchers reported experiencing success in their research projects through using RAs and that it was "absolutely and fundamentally" a richer researching experience because of hiring the assistants. The theme of faculty research experience being enhanced has been divided

into the following subthemes: (a) increased research productivity, (b) RAs contribute valuable technical skills and knowledge, and (c) research interest and energy maintained.

Increased research productivity. The researchers reported they benefitted because of the research tasks that were accomplished by RAs, which increased their research capacity. Given their heavy teaching loads, researchers said they never would have had time to do intensive data collection without them. RAs were described as “hugely helpful” for a variety of other tasks as well. They performed literature searches, gathered articles, administered questionnaires, analyzed statistics and other data, coded, and prepared abstracts and presentations for conferences. They were fast and motivated learners, quick at data entry, and kept on top of the research projects. The researchers felt that the undergraduate RAs’ youth was an advantage, in that they added value to tasks by contributing their creativity, project ideas, and different ways of thinking and doing things.

Research assistants contribute valuable technical skills and knowledge.

Kwantlen researchers reported the RAs brought their classroom learning to the table; for instance, some undergraduates had journalism and technology expertise. Their searching abilities on Google and their use of media and technology were considered by the researchers to be better than their own. The RAs’ web-designing abilities and computer skills were also greatly valued.

Research interest and energy maintained. Discussions with RAs refreshed the Kwantlen professors and kept them involved in research. Use of RAs also kept the research momentum going during times when the faculty members were busy teaching. The RAs were a rich resource base for them and allowed the researchers to have a more

professional balance. What the researchers considered tedious tasks were exciting for RAs because they, unlike the researcher, were doing them for the first time.

Finding 2: Relationships are Central to Beneficial Outcomes

Short (1998) stated, “Relationships are the very heart and soul of an organization’s ability to get any job done. . . . What goes on between individuals defines what an organization is and what it can become” (p. 16). From the start of my project, it was evident that the quality of relationships was an important element in Kwantlen’s researching community. The theme of relationships and their connection to beneficial outcomes has been further explored in the following sub-themes: (a) mentoring; and (b) collaboration, connectivity, and self-support.

Mentoring. Jacobi (1991) described mentoring “in the educational sense as a one-on-one learning relationship” (p. 513) and stated that

mentoring can be viewed as a vehicle for promoting involvement in learning. The mentor would encourage and motivate the student protégé to deepen his or her involvement in learning and would provide opportunities for particular kinds of involvement (e.g., research assistantships). (p. 523)

Trust is essential for positive mentoring experiences; it is central to dynamic and reciprocal relationships (Solomon & Flores, 2001, pp. 13-14) and is the basis of strong teams (Lencioni, 2005, p. 13). Both RAs and researcher participants exhibited a sense of trust within the researcher/RA relationship.

The majority of Kwantlen RAs expressed a clear appreciation for the mentoring they received from researchers, calling it a “bridge to success”, encouraging, and something the researcher took seriously. Many felt they had a unique, more personal relationship than with other faculty and were able to take advantage of teaching moments

and opportunities for socializing. They could ask about other teachers, graduate school, honours classes, and what they needed to be a successful student; they enjoyed the opportunities for intellectual debates. Even so, a number of RAs struggled with awkward situations, such as saying “no” to a researcher’s request or having to ask for clarification of expectations.

Researchers were aware of their capacity for mentoring RAs through discussing career plans, graduate school, as well as helping students to improve their research skills. An example of mentoring was advising an RA on what to do when a participant became distressed. This led to a group discussion at a team meeting, so that all RAs were prepared for this situation. Sometimes, mentoring was in the form of sharing skills, such as use of Web-ex, an online conferencing tool. Researchers noted, however, that larger projects did not tend to allow for this quality of relationship as RAs tended to be “more like employees”. Often researchers found out the extent of their influence only after the RA had moved on and sent a note or Christmas card expressing their thanks.

Collaboration, connectivity, and self-support. Connections between RAs and their researching faculty, and within research teams, were important to both groups. It was notable that both the RA and faculty focus groups immediately began suggesting ways to share expertise, information, and support with each other. They seized on the possibility of filling the void resulting from the lack of sustained institutional support and RA infrastructure services. During the research preparation stage, I had hoped that the RA focus groups would provide a venue to begin to connect the disparate pockets of RAs throughout the institution. This did occur. Participants met RAs from other disciplines and learned of the existence of other research groups. RAs enthusiastically discussed

mechanisms for connection. Suggestions included: (a) forming an association for Kwantlen RAs (jokingly titled “RAs Anonymous”); (b) holding cross-disciplinary meetings to share skills and experience, such as expertise in research ethics applications; (c) organizing social gatherings; and (d) developing a social media site, such as a blog, Facebook group, Moodle website or “giant discussion forum” where they could meet electronically and be anonymous unless they chose to expose their identity. The connections went beyond the RA/researcher; RAs also reported they enjoyed interacting with research participants, networking, and making educational connections inside and outside of Kwantlen through the researching faculty member.

Although I expected some relationship-building would happen in the RA focus groups, I was surprised to find the researcher focus group also brought up ways to support each other. These included creating a registry of expertise with program, such as SPSS, Excel, or qualitative software. A faculty member suggested that “research support groups could be created for those doing similar research . . . so that researchers and RAs get to know one another and share expertise.”

Finding 3: Kwantlen has Organizational Gaps that Greatly Affect the Potential of Undergraduate Student Research Assistants

Faculty and RA participants identified many missing links in Kwantlen’s organizational practices surrounding RAs. These included a lack of overarching policies and procedures related to the recruitment, wages, and working conditions of RAs. In addition, the research participants identified issues of inaccessibility of information about these positions, insufficient training of both RAs and current and potential researchers,

the value of feedback to RAs, inadequate infrastructure, and the perceived undervaluing of RAs and research as a whole at Kwantlen.

Policies and procedures. The lack of clear policies and procedures related to recruitment, working conditions, and training had caused confusion and wasted time for both researchers and RAs. Participants in both groups had many unanswered questions such as: Can a student continue to be a RA after graduation? Do RAs get a paid break during a seven hour shift? Can researchers drive RAs in their cars? Can RAs claim mileage costs if they use their own cars for work? As one researcher put it, “We fly by the seat of our pants.” One research lab has addressed this void by drafting an internal RA procedure manual. Other researchers and RAs welcomed the idea of a similar university-wide manual; they felt that it would be empowering and would provide more transparency. This issue was very important to RAs. When asked to reflect on what they would change in their RA experience, the majority said that they would have liked more information about the position, both in terms of the posting of openings and job descriptions, and the anticipated working conditions once hired.

Recruitment of research assistants. RAs were hired in a variety of ways at Kwantlen. Most commonly, researchers reported they hired bright, motivated, and talented students from their current or former classes. Sometimes, they sought referrals from colleagues. Other methods included advertising openings to students and faculty in their own and other departments via email or website postings, placement of signs in research labs, mentioning opportunities in course syllabi and lectures, gathering names through a sign-up sheet at a research fair, hosting a “research mixer”, and promoting promising student assistants or Co-op students. Some students took the initiative of

inquiring directly about positions or volunteering their time to a researcher. Sometimes, volunteers would become paid RAs when grant funding became available.

While most recruitment took place through these relatively informal processes, some faculty took a more formal approach. One researcher had targeted emails sent by a specific faculty where he felt students were most likely to have the writing and data analysis skills he sought. Applicants took a two-hour skills test, and he narrowed the pool to a small number. This provided the researcher with a small, flexible team that would be available for an extended period and would allow for some attrition.

Researchers disagreed about hiring students from their current classes as RAs. Some faculty would not do so for ethical reasons; they felt that it posed a potential conflict of interest with the possibility of coercion. It might also be perceived by other students as an unfair advantage. Other Kwantlen researchers did hire students from their classes. They felt that the pros (e.g., knowledge of the student, regular contact) outweighed the cons. Clear institutional guidelines would help to address this issue.

Faculty members welcomed a more standardized recruitment mechanism as did RAs themselves. Many RAs would have become involved in faculty research sooner if they had been aware of the advantages of this experience to later graduate school applications and if they had known how to find out about current research projects and openings. They wanted to be able to make informed choices. When asked about what should be addressed in a half-day orientation course for RAs, they identified topics related to both recruitment and working conditions such as: the value of RA experience for future graduate school plans; job prerequisites (e.g., minimum grade point average), previous courses in quantitative or qualitative research methods, which were viewed as

required or desirable skills; typical job duties, wage range, and hours of work; researchers' expectations of RAs; communication and reporting guidelines; and payment procedures. They thought it would be valuable to have a panel discussion where researchers could talk about the variety of active research projects and the role of RAs in these projects. They wanted to walk away with a clear sense of what it meant to be an RA so they could decide whether to apply and, if so, how to find such positions at Kwantlen. Researchers also supported the idea of an orientation session for potential RAs.

Wages and working conditions. As with recruitment, the wages and working conditions of RAs varied widely. Each RA was hired for a specific time period under an individual Contract to Purchase Services agreement, which established the wage rate and duties. There was no standard job title, let alone job description.

Wages of the RA participants varied from \$8 to \$15 per hour; some RAs outside the study are known to earn up to \$60 per hour. This seemed to depend more upon the researcher doing the hiring than the job duties of the position. This inconsistency bothered many of the RAs, who felt that a minimum of \$15 per hour was appropriate. Some researchers agreed. Others felt that there should be some standardization of roles, where the wage rate was tied to skill level, and with a higher level Research Associate position being created for students with greater experience and education. Wages were usually paid from research grant funds. RAs completed bi-weekly time-sheets that were reviewed by departmental administrative assistants and submitted to Payroll. Costs were then charged back to the research funds managed by the ORS.

RAs were paid only for actual work time. For example, if RAs were scheduled to conduct research interviews for two hours, but the participants did not show up, they

would not be paid. They often under-charged for their services, logging fewer hours than they worked. Some felt guilty about putting down their actual hours worked, due to their awareness of the limited grant funds available and a feeling that they were earning some compensating intangible benefits. Indeed, some RAs indicated that they would do the work even if they were not paid; they considered it a bonus to be paid for learning.

I discovered that a surprising number of RAs were volunteers. One went so far as to say that being paid defeated the purpose of being an RA and felt that it looked better on a resume and provided more authorship opportunities if they were unpaid. This RA had approached the professor and volunteered his time, so he did not expect to be paid. However, the majority of RAs wanted to be paid for their work, because research projects themselves were funded. They would prefer to be a paid RA than work at another job. A suggestion for an alternative funding model, similar to that of restaurant servers, was proposed: a base wage would come from university funds, with “tips” from the professor’s grants. Transparency was important to them: the funding could be charted so that everyone could see where the money was going. They suggested bursaries and credit at the University Bookstore to assist volunteer RAs.

RAs mentioned they were not familiar with British Columbia labour laws. Researchers agreed that “many students work with a faculty member on a volunteer basis [and] some guidelines are needed to prevent risk of exploitation.” For example, faculty should acknowledge the RAs’ work on projects and their contributions in publications. It was mentioned that the University of British Columbia had “a strict set of guidelines.” Another observed that “the RAs probably need some third authority-person they can go to if they feel they are in some way being badly treated.”

Hours of work varied from one position to another and often from week to week. This inconsistency was seen as both good and bad. Many RAs appreciated the flexible scheduling. They often needed to work at home at “weird” hours, but they also valued some structure, such as regular team meetings with the researcher. They wanted to work enough hours to accomplish the research goals without becoming overwhelmed by the professors’ expectations in light of their own educational commitments. A researcher felt “the professor needs to be realistic when setting work schedules, because the RA has other commitments too, like trying to pass those pesky exams! Some flexibility is what is required, without being too lax.” RAs, a professor said, “must be given the opportunity to organize themselves to decide how they should be ‘used.’” Some weeks there tended to be more work than others, and often there was not enough to live on, such as 18 hours in two weeks. A researcher suggested “setting minimum hours (10 hrs weekly).”

Information sessions and training. All of the participants were interested in the topic of preparing RAs to work on researchers’ projects. Such training benefits the immediate projects, but also forms the foundation for the development of a future generation of researchers. The faculty also expressed the need for readily available information for new researchers about how to set up a research project and employ RAs. One wrote that the “ORS needs to spearhead educational opportunities that faculty and RAs can benefit from.”

Training of research assistants. Current training practice varied, depending on the type of project, the researcher’s expectations, and the time they had to provide training. Most RAs were expected to have taken qualitative or quantitative research methods classes, or both. Through their classes, most had received training from

librarians in literature reviews, databases, and interlibrary loans, but RAs felt that presentations should be designed to be interesting to those who receive more than one class orientation. The Tri-Council (1998) policy statement on-line tutorial was standard training required in research settings. Upon successful completion, a certificate was generated to prove the student had a basic understanding of research ethics.

Preparation for RA work included readings from the literature. Many researchers provided some form of training using a variety of modes, most typically a one-on-one, “learn-as-you-go” approach for data collection, data entry, or qualitative data analysis. The professors taught RAs about dressing professionally, courtesy, and email communication as a legal document. Researchers often gave RAs jobs that would serve to stretch their abilities and provide opportunities for training. RAs working together also taught each other or learned from a lab manager RA.

When asked about what should be addressed in a half-day RA orientation course, RAs enthusiastically suggested a number of recruitment and working conditions-related topics, as previously discussed, as well as training opportunities on questionnaire design, library research skills, APA guidelines, and the Tri-Council (1998) policy statement research ethics tutorial. RAs proposed other forms of training, such as classes in SPSS, year-long courses in statistics, workshops in Excel, and other topics such as facilitation and data collection and analysis. An overall sense from the RAs was that there was great need and interest for further training, whether during the research process or in a separate seminar, course, or weekend symposium. Training manuals or handbooks were suggested by both RAs and researchers. Cross-institutional weekend symposia, linking RAs from

other universities, were proposed, covering topics such as Excel, SPSS, statistics, ethics, and APA standards.

Ongoing training through regular meetings was seen to be surprisingly important in addressing challenges and providing a forum for feedback and learning new skills. Some meetings were designed with a portion given for training in specific areas such as an aspect of SPSS, or community development. They often debriefed at the end of meetings: about what was learned, how they worked as team, and what to do with those not pulling their weight.

Some RAs had filled their training gaps by seeking information from other professors. In addition, they called upon the expertise of the IET department staff for help with statistics. In one case some RAs travelled to the University of British Columbia and learned the coding schema of PhD candidates doing a similar project.

Opinion among faculty researchers varied regarding RA training. There was general agreement that it was needed, but would have to be customized for different projects. Most felt that there should be institutional support for this training: a mechanism to train RAs and to send them to courses. However, one researcher thought Kwantlen could not do much preparation or training, saying that “it is the job of the professor to select the most appropriate RAs.” One said he felt like training RAs was his responsibility, and he had not thought about the institution’s contribution for training.

Feedback to research assistants. Feedback from researchers, RAs said, was helpful if done throughout the project so they could improve their skill development. They felt feedback was important for mentoring and developing project quality control. One RA stated that though she felt feedback was very important, she did not receive any

and wondered how she was doing. Clear guidelines and goals should be given as well as feedback. Written pieces should have written feedback. One RA suggested verbal, informal feedback would be more comfortable than a written, formal process, while one preferred a letter because of being busy. An RA who functioned as the lab coordinator was given responsibility for feedback to the other RAs, and this was accomplished through email or face-to-face meetings.

Researchers spoke about various questions they had about giving feedback to RAs, stemming from a sense of discomfort with taking on a supervisory role. The researchers felt that they were not exactly instructors, but not exactly employers either. One researcher thought “it is up to the professor to design the research so that the assets of the RA are used to best effect.” He rarely met his RAs in person, but selected those he thought he could “rely on just to get on with the work.” Most researchers have given informal feedback, but they agreed the idea of formal feedback needed investigating. One idea was to have a report card. It should be left “to the individual faculty or project . . . general guidelines may help, sharing what is currently in practice: self-evaluation/ feedback meeting/ reference letter at the end of a term.” When one researcher hired RAs, he “told them that at the end of the project, they would need to write a short report on what they had learned.” They were asked “to keep a diary with their reflections on the process of research and learning . . . the very act of having to keep a diary encourages reflection.” One Kwantlen researcher had his RAs voluntarily write their own letters of reference, highlighting what they learned. Self-evaluation was encouraged. One had another instructor edit the RAs’ written work. Feedback was hard to do for volunteers as it was not expected.

Training of faculty. It was suggested the ORS and various faculty members arrange a workshop for faculty interested in research. The workshop would include research ethics, authorship issues, and responsibilities. When one researcher was starting out, he gathered faculty in his department together to collect best practices like how much to pay, where to get grant money, what expectations to have for RAs, how to deal with authorship, and to get some consistency and consensus. Researchers mentioned they could get creative and self-support each other in, for example, SPSS text analysis. A registry of expertise (e.g., SPSS, qualitative programmes, and Excel) would be helpful. One professor made YouTube videos and posted them. A researcher wrote, “Finance/HR could have a short info booklet on the process of hiring RAs (contracts, etc.)”; another researcher mentioned that guidance on how to decide what to pay would be useful. Information was needed on how to involve students in research and how to run labs, as well as help in how to mentor.

Infrastructure. The structural support for RAs was seen to need strengthening. Funding, time release from teaching, space, and other necessities, as well as organizational support for research in general were topics raised by the participants.

Time release and funding. While the tasks of RAs and faculty may be different, each group emphasized they struggled with limited time for the volume of work they needed to accomplish. Essentially, faculty members were expected to maintain their current teaching loads AND do research as well. Time was a scarce commodity. The only way to free up time to do research was to obtain internal or external grants or other funding, such as through the faculty Professional Development Fund annual competition, which could be used to replace the instructor for one or more classroom blocks. The

researchers agreed the amounts of funding and time release should be increased. External grants were extremely competitive, and the application process was time-consuming.

Some internal funds such as the Minor Research Grant could be used to hire RAs, but these funds were typically modest and short-term, sometimes releasing the researcher for one teaching block for one semester; there was a limit on the number of times a researcher could apply. As a result, RA positions tended to be short-term. One faculty participant indicated that he had managed to sustain a research project using the 0.6 PD fund for hiring RAs, though would like to see this way of funding RAs better publicized. Most faculty researchers, however, noted that this uncertain, short-term funding made it very challenging to keep research going at a pace of benefit to both Kwantlen researchers and RAs.

Researchers would like support for paying RAs' incidental costs such as travel, conferences, training sessions outside of Kwantlen, and transportation costs to attend meetings. They expressed the need and support for a more stable source of institutional funding for researchers to pay RAs. In five years' time, they would like to see Kwantlen offering more funding to have more RAs and discontinuing the practice of not funding the same faculty member for a number of grants. Some suggested that the Kwantlen Foundation could explore funding for research.

Physical resources. RAs spoke at length about the need for more workspace and essential equipment. Some departments had labs, but space was tight: so tight that many RAs resorted to booking library study rooms in two-hour blocks for meetings and confidential conversations or interviews. This was not ideal for the RAs since the rooms were often noisy, lacked the equipment and services that they needed, and were often

unavailable due to high demand. From an institutional perspective, their use of these rooms for paid research also blocked access for student groups doing school work: the intended purpose of the study rooms. RAs felt that departmental labs should have a research room to accommodate this work, as well as some lounge space with a television and couch for breaks. Bigger projects needed their own space.

Basic equipment was also lacking. RAs needed access to lockable filing cabinets or a locked office to store confidential research material. Storage in general was a problem. Simple office supplies were also scarce, particularly since SSHRC grants no longer covered the cost. RAs also spoke of the need for easier access to computers, projectors, and tools and the desire for new CD players. Data analysis software such as SPSS was hard to find on campus; the institution's license provided access for a very limited number of users. Researchers concurred on the need for space and equipment for RAs, such as a designated lab space or home base. One researcher had resorted to setting up a computer for an RA in a closet.

Research and administrative support. Both RAs and researchers spoke of a general lack of administrative support. They spent inordinate amounts of time obtaining access to necessary resources and services. Since RAs often conducted literature review on behalf of faculty, they required access to library research databases from on- and off-campus, as well as faculty-level borrowing periods and interlibrary loan privileges. Current library procedures created roadblocks for some RAs, particularly those who were not current students. Similar problems were encountered accessing computing resources through the Information and Educational Technology (IET) department. Given the hassles encountered, researchers sometimes bypassed IET, the library, or other Kwantlen

processes to get things done. Faculty attributed the lack of integrated processes in the library, IET, and other departments to the fact that there was “no research culture” at Kwantlen.

The time and energy required of faculty to address largely administrative matters was detracting from the already-limited time they had to conduct research (e.g., having to train RAs, obtain grant funding, etc.) and could lead to faculty burnout. Researchers felt ORS should provide more support.

Lack of a research culture. Although a wide range of research was taking place at Kwantlen, very few people knew about it. Even active researchers were unaware of projects in other departments. One researcher said he would “love to know how much research is going on at Kwantlen . . . and perhaps we could get a summary of numbers of papers published each year written by Kwantlen people? It would be nice to see that number climbing.” This might inspire other faculty to “get a little project up and going.” One faculty member explained that he did research “because it is my lifeblood.” He noted, though, that:

I do my research in addition to my full teaching load. I’d get paid the same if I just stopped doing the research BUT I think my teaching would suffer without the research going on. For a start, teaching can be a little monotonous but thinking about the research gives me a boost; and I can bring into my teaching some ideas and techniques that I’ve gathered from my research.

Given the lack of direct incentive to conduct research, and considerable resource constraints, faculty participants felt that Kwantlen needed to actively foster a “research culture” by showcasing current research activity more effectively and finding ways to acknowledge the value of the work done by its research community, including RAs.

Lack of recognition and celebration of research. It was frustrating and disheartening to RAs and researchers that research seemed to not get the institutional attention they felt it warranted. Both groups wanted to see Kwantlen providing website biographies of what the RAs were doing and what projects were happening. The RAs mentioned that at the University of British Columbia, each lab had a website with photos of RAs and information about where students could apply for work. RAs commented they would feel more valued if their profile was raised at Kwantlen. More events highlighting research and bringing interested students and researchers together would assist in recruiting, as well as the promotion of research. One researcher pointed to the example of the recently-inaugurated monthly Person-to-Person [P2P] Chat: Connecting Students with Faculty Research series hosted by the Library and coordinated by several departments located in the Surrey campus library building. He wrote that he

loved the efforts made by the Library in the Speakers' Series . . . it's a start. We need to have all sorts of interesting discussions and brown bag lunches going on all the time . . . but this needs faculty willing to give a little more outside the classroom and with interesting and stimulating ideas. I have a strong feeling there ARE students who would love to sit in a comfortable setting and discuss interesting ideas . . . but those ideas need to be fresh and the persons delivering them (not necessarily faculty) need to be willing to be challenged and lead discussions. This is a new culture for Kwantlen.

There needed to be better advertising of these events, finding more ways to let students know about RA positions and giving a list of RA project opportunities. Educating the community and community partners about research occurring across each campus of Kwantlen, what the current projects were, and public recognition of the RAs would make them feel valued. They observed that ORS could be more involved in publicizing and informing the community.

A professor suggested “a research newsletter [or] e-journal” for Kwantlen could be started, “highlight[ing] the work and who is doing it.” This could be sent to community groups in paper format and could be “a great journalism student project.” They could “interview faculty doing research to get descriptions of their projects”, profiling RAs in the student newspaper. Faculty said research results should be published in refereed journals, and joint publications would validate RAs and legitimize them with the institution.

Participants felt that Kwantlen should find a way of remaining in contact with and tracking some of the students who have had RA experience and what they went on to accomplish (e.g., graduate school and other successes). Kwantlen could ask them for feedback about their RA experiences.

Valuing research assistants. Though some RAs suggested gifts of appreciation from the institution would help them feel valued, others said they already felt appreciation from their professor and did not expect it from Kwantlen, suggesting the personal connection was far more important to them than the more abstract institutional one. Ideas from the RAs included special parking spots or being given a pen or T-shirt with “KPU RA” on them that would increase their sense of being special and valued. Space was a big issue with the RAs: They said they would feel more valued if they had space to work in, an RA lounge in which to rest and work. They would like to be invited to a Student Life dinner at the end of the year. It could be a “thankless job” and gifts and other signs of appreciation would be welcome.

Recognition of the RAs’ contributions was deemed by both groups to be important. Kouzes and Posner (2007) wrote that it is about “acknowledging good results

and reinforcing positive performance. It's about shaping an environment in which everyone's contributions are noticed and appreciated" (p. 281). The possibility of RAs being given preferred status for student scholarships was mentioned by the researcher group, and the RAs suggested the establishment of a scholarship for RAs.

Researchers had many other suggestions for ensuring RAs were valued institutionally: (a) creating a more stable source of institutional funding for paying RAs and sending them to conferences; (b) recognizing RAs' contributions in researchers' publications or presentations; (c) giving them "preference on getting funding to present their results"; (d) celebrating them "by having them present posters about their project [at] a Kwantlen Scholarship Celebration"; (e) giving them "references that report their work"; (f) establishment of an award for the best RA; and (g) writing and presenting with faculty. A faculty researcher suggested there should be acknowledgement of RA contributions to research, such as offering students elective credits for doing research. Other ideas included "maintain[ing] a list of RAs—not just in ORS" and including "their contributions in acknowledging research at Kwantlen"; "appointments of RAs could be posted on the electronic bulletin board"; and RAs' instructors could be notified. Valuing RAs also involved legitimizing them through the institution's Human Resources, Library, IET, and Finance processes.

On a personal level, individual researchers did or suggested the following: (a) thank the RAs over and over; (b) tell them they are the reason they can continue to do research; (c) bring food to meetings; and (d) "meet often." Suggestions by Kwantlen faculty for showing appreciation to RAs most often involved food: lunches, dinners, potlucks, and bringing food to meetings. Researchers' ideas included (a) "have a lunch

for the RAs once a year, even if it is a potluck, so they get to know each other”; (b) organizing “a dinner or lunch with RAs to celebrate each project”; and (c) celebrating the RAs’ hard work or a milestone such as being half-way through. Those who have done so have found this a team building opportunity where they had a social time without talking about the project.

One researcher stated that if Kwantlen was to move forward as a polytechnic university that “promotes applied research and scholarly activities that enhance our teaching and enrich our communities” (KPU, n.d.f), then it would need to develop a comprehensive research agenda that would build research capacity; allocate appropriate resources; and address the organizational gaps identified above by developing appropriate policies, processes, and structures. An integral part of this would be to support RAs and recognize and value their work.

Study Conclusions

The focus of my inquiry was to examine organizational practices impacting RAs at Kwantlen Polytechnic University, identifying the potential issues and discovering optimal ways to address RAs’ concerns, increase their sense of presence, and maximize their contributions. My goal was to better understand the current and potential role of RAs at Kwantlen and to identify organizational changes that would help achieve maximum mutual benefit for RAs and for the university in order to enable Kwantlen to move forward as an institution that encourages faculty and student research and places a high priority on providing its students with work-based learning opportunities. Analysis of the data collected from the three focus groups and three interviews has resulted in

conclusions that I have identified in the context of the scholarly literature and the overarching questions.

Conclusion 1: Current Relationship

My inquiry found that the benefits of utilizing RAs greatly outweighed the challenges for both RAs and researching faculty at Kwantlen. Researchers found, in line with the literature (Jones & Draheim, 1994, p. 90; Krywulak & Roberts, 2009, pp. 31-32), that the RAs' youth was a benefit to them in many ways, including their expertise with technology (Goss Gilroy Inc., 2005, p. 24; Levesque, 2005, p. 52).

Relationships were a crucial element in maximizing benefits to the Kwantlen RAs. They reported that researchers often mentored them in areas as diverse as their future educational and career plans, money-management, and research skills. The literature confirmed that faculty mentoring of RAs is a valued outcome of the RA-researcher relationship (Benton, 2004, para. 5; Dutton, 2003, p. 26; Gift et al., 1991, pp. 231-232). Dutton (2003) noted that the value of mentoring to students lies in linking "theory to reality, combining academic knowledge and a worthy experience and relating practical information to studies" (p. 26). As a result, mentoring could "positively influence retention and achievement" (Jacobi, 1991, p. 515). The 2010 National Survey of Student Engagement pointed to student involvement in faculty research as potentially "life-changing" (p. 22). Kwantlen RAs valued the social benefits of their work, in line with the friendship that Jones and Draheim (1994, p. 90) reported as did Dolan and Johnson (2010, p. 550). Researchers enjoyed their interactions with RAs, finding the relationship helped to both motivate and refresh them, as reported in the literature (Hutchinson & Moran, 2005, p. 6; Jones & Draheim, 1994, p. 91). While relationship was

a strong driver in recruitment and retention, mentoring, and feedback, there was a desire for more connectivity between the RAs for support and information and skill sharing.

Faculty also wanted to see fellow researchers sharing information and skills.

RAs were not highly visible members of the Kwantlen community. It was difficult to determine if this situation was atypical because there was very little literature on undergraduate RAs within post-secondary institutions. RAs and researching faculty shared duties, which included organizing study participants, formulating questionnaires, interviewing one on one or in focus groups (i.e., data collection), transcription, data entry, data analysis, literature searches, and writing. The activities of the RAs were in line with those mentioned in the literature (Goss Gilroy Inc., 2005, pp. 17-18; Hutchinson & Moran, 2005, p. 7; Jones & Draheim, 1994, p. 87). There did not seem to be any policy regarding volunteers and no guidelines to protect this potentially at-risk segment of the RA population, or indeed any strong guidelines for managing RAs, who typically were in a vulnerable age group and power position. Training of RAs was usually done by individual faculty on an as-needed basis. Gift et al. (1991) confirmed the need for training in skills ranging from ethics to writing (pp. 231-232). Feedback to Kwantlen RAs was done in various ways, ranging from verbal to written, including RA self-evaluation. As Lown (1993, p. 30) recommended, Kwantlen researchers usually let RAs know how they would be evaluated, but it was often an informal process. They sometimes required the use of a journal to encourage reflection by the RA.

Conclusion 2: Organizational Change to Better Integrate Research Assistants

Research had been in a limbo state for years and was operating in something of a vacuum in spite of deficiencies such as lack of coordination by a governing or planning

body with input into the budget process. The lack of clarity regarding the role of ORS was hurting the development of Kwantlen's research mandate. A researcher stated in an interview: "Senior administration and ORS needs to enable a conversation across the university about legitimate research within what is essentially and legally a teaching university." Some research would happen at Kwantlen with or without strong organizational support, and RAs would be part of this. However, significant progress and productivity was hobbled by the lack of clarity about Kwantlen's research mandate and the lack of resources to support research. Researchers' scarce time was taken up by disorganized and inefficient administrative procedures and in time-consuming pursuit of adequate research funding. This could lead to faculty burnout and discourage others from undertaking research. As the faculty participants noted, "publishing scholarly articles isn't a job requirement" for Kwantlen faculty. "Kwantlen is mandated as a 'teaching' university so many faculty will (justifiably) feel that they aren't required to do research to keep their jobs." Kwantlen's researchers expressed the need for clarity and definition of the level of research expected in the polytechnic university and then for support through strong organizational structure, adequate funding and resources, and raising the research profile. It is noteworthy to point out that both RAs and researchers spoke about the University of British Columbia and Simon Fraser University, which were larger universities, but close in proximity to Kwantlen. It is curious that the University of the Fraser Valley, also geographically close, was not mentioned.

RAs played a vital role in supporting faculty research, but were poorly-managed. Current practices were fragmented, and there were no standards related to recruitment, job descriptions, wages, working conditions, or training. My inquiry found that

undergraduate student RAs at Kwantlen were recruited in various ways with no overall coordination and no formal job descriptions, and they were hired under a Contract to Purchase at variable rates or were volunteers, either by choice or because of the lack of funding. There was no formal job description for RAs. Ideas for improving the managing of RAs ranged from assistance of the Human Resources Services department for recruitment and hiring processes to the greater involvement of ORS in training and funding assistance. RAs suggested more information about the position be disseminated, including job opportunities and duties as well as working conditions, such as whether breaks are paid and whether there is paid sick leave. They also described the lack of clarity regarding varying wage rates. Gift et al. (1991) confirmed the importance of specifying researcher expectations of the RA as well as compensation (p. 231).

Researchers suggested RAs be given an employee category rather than being hired under a Contract to Purchase. Both RAs and researchers expressed the desire for information about issues they experienced. These included authorship as well as faculty driving RAs and vice versa. Training of RAs was seen to be important by both RAs and researchers. Although researchers trained RAs as required, most participants agreed that more training opportunities provided by the institution would be welcome. The literature supported extensive training in various skills from data analysis to working in teams (Gift et al., 1991, pp. 231-232; Hutchinson & Moran, 2005, p. 3), but little information was available about institutional training programs for RAs or for new researchers.

Researchers needed to be released from teaching for longer periods of time in order to maintain the momentum of their research projects and continue to employ RAs. This was not simply a question of time management. It was the direct result of the

ambiguous status of research in general at Kwantlen. Although the institution had committed itself to developing a strong applied research agenda, in keeping with its new university status, Kwantlen's level of provincial funding was not changed accordingly. Kwantlen was trying to do more with the same amount of money or less, some would argue. This was clearly apparent in the small amount of internal grant funds available, which had not changed substantially in several years aside from the creation of the new Chancellor's Chair award to be given to one researcher every year.

Funding for space, filing cabinets, and office supplies as well as RA wages was lacking. The RAs, particularly, noted the frustration of knowing data should be kept secure, but not having lockable filing cabinets or secure rooms in which to store the data.

Faculty expressed the systemic challenges of securing access to Kwantlen resources for their RAs. These included access to library resources, in addition to computer and software access through IET. Both the library and IET problems stemmed from their requirement that RAs have an employee ID number and category to provide RAs with access to all the resources that professors had. The IET department was responsible for giving this access. This was not a smooth procedure, since not all individuals hired under a Contract to Purchase were RAs. All personnel hired under a Contract to Purchase could not be given automatic access to these resources. Smooth, efficient procedures for on- and off-campus access to library resources and access to computer equipment and software for RAs was seen as essential. In the absence of these requirements, researchers and RAs had worked around the formal systems, substituted other resources, or accessed other institutions' resources in order to accomplish their tasks.

The role of ORS was seen to be insufficient for the needs of researchers and RAs. A researcher suggested that ORS become a legitimate home for the RAs: a hub or nexus for RAs to work and come together for peer support and to work with faculty, clusters of faculty, institutes, centres of excellence, and the library. Another said, “ORS should have a much bigger profile.”

As we expand as a university, we owe students an opportunity to do research in a variety of faculties, one faculty member claimed. Indeed, Kwantlen had committed itself to providing work-integrated learning opportunities in its recently created vision for the university (KPU, n.d.f). Faculty felt that within the four-year bachelors’ degrees there should be more research opportunity. The question was asked: “Where are we trying to get to?” One researcher wrote, “Kwantlen needs to have a position about research.” It became evident that the way research in general was perceived and administered at Kwantlen greatly affected research and, in turn, RAs. Therefore, the answers that were given spoke to Kwantlen’s organizational culture and structure and spilled over to what, for instance, researchers needed in order to engage in research at the institution. The highlights of how research and RAs are managed at other small teaching universities are provided in the Organizational Implications section of chapter five.

Kwantlen had the capacity to change, as evidenced by the volume and breadth of suggestions generated from the engagement of RA and researcher participants in this inquiry. The visioning that began as Kwantlen undertook to define itself as an institution needed to continue and address the important role of research, and by extension, RAs.

Scope and Limitations of the Inquiry

Glesne (2006) advised researchers to reveal any limitations of their study (p. 169). The focus of this inquiry project was to explore the positioning and training of RAs at Kwantlen Polytechnic University with the aim of establishing a strong relationship between the institution and the undergraduate student RAs. Graduate and post-graduate RAs are also employed by researchers at Kwantlen, and there will soon be volunteers who are not students, such as international graduate students who come to do part of their research degree and paid or unpaid Fellows added to the mix, according to a researcher (personal communication, January 19, 2011). However, this study does not focus on them, and their experiences may differ from the undergraduate RAs.

From March 21, 2010, to January 23, 2011, there were 91 new contracts issued for RAs (Payroll Operations Manager, personal communication, February 14, 2011). Though a good number of RAs (15) participated in the focus groups, these groups may not have included the experience or opinions of all Kwantlen RAs, some of who worked off campus (Librarian, personal communication, January 19, 2011). There was a small group of researchers (i.e., eight, including an administrator who is a researcher) who were motivated or available to participate either in a focus group or an interview. They might not have been representative of all Kwantlen researchers' experience with or opinions for maximizing the potential of undergraduate student RAs.

The scope of this inquiry has been limited to RAs and researchers at Kwantlen. Other important voices should also be heard: that of ORS, the Human Resource Services and Financial Services departments, the IET department, and the Library, as well as the various faculties and institutes, administrators, Cooperative Education and Career

Services, Student Life, and the Foundation (see Figure 1). These services and supports are necessary to strengthening the role, effectiveness, position, and training of Kwantlen's RAs.

As with any growing institution, activities and initiatives are continually occurring that make any study quickly out of date. The facts and feelings cited and expressed in this report may tomorrow prove to be erroneous or different. These factors are mentioned to caution readers to consider this report in the context of a brief period of time in the fall of 2010 when I was fortunate enough to interact with a number of inspiring researchers and RAs to explore together their researching community.

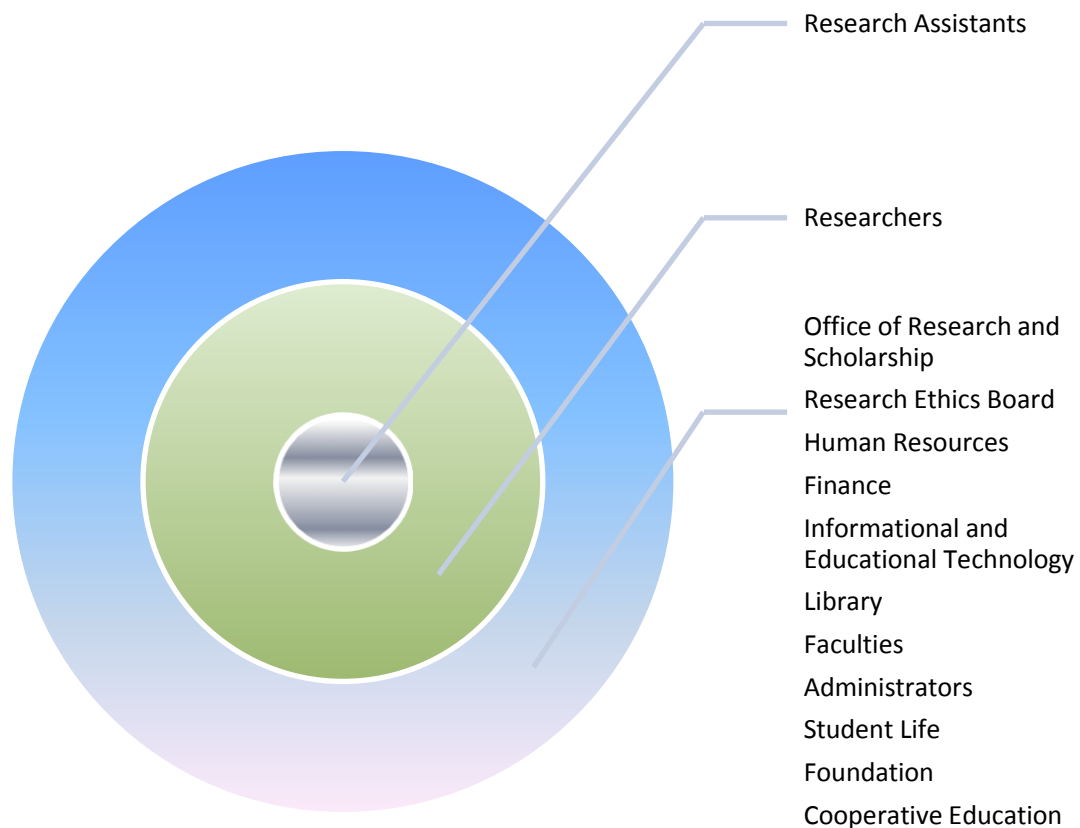


Figure 1. Additional institutional support necessary for successful RAs.

CHAPTER FIVE: INQUIRY IMPLICATIONS

In this chapter, I will include a major recommendation and an observation I arrived at through the course of my research that examined the question, “How does a new, small polytechnic university with a teaching focus maximize the potential of undergraduate student research assistants?” I have suggested some specific actions that could be undertaken within the umbrella of the major recommendation. The organizational implications for Kwantlen are then explored, in the context of enacting the recommendation, as well as the expected impact of not implementing the recommendation. Finally, I examine possible additional avenues for the action research cycle, regarding RAs, to continue at Kwantlen.

Study Recommendation and Observation

The key recommendation that emerged from listening to the voices of some Kwantlen RAs and researching faculty and examining the literature that addressed undergraduate student RAs and their environments is presented in this section. It is followed by recommended actions. An observation for further consideration by the university administration is also presented.

By employing students as RAs, Kwantlen increases the research potential of its faculty and provides its students with invaluable work-based learning opportunities, thereby supporting two key commitments made in its new vision and mission and mandate documents (KPU, n.d.c, n.d.f). It is a particularly tight fiscal period, with provincial funding frozen at the same time that Kwantlen is trying to grow into its new university status. With no change to faculty teaching loads on the immediate horizon, Kwantlen will need to find ways to encourage and support research by faculty who are

already stretched to meet existing commitments. RAs can improve researchers' productivity by performing essential tasks. These RAs also have the opportunity to put their classroom learning into action; develop transferable skills; explore research and further education options; and, perhaps, start on the path to becoming the next generation of researchers.

Kwantlen is not currently maximizing these potential benefits, however. In fact, RAs seem to barely register on the institutional radar. A persistent thread surfaced in my data. Almost all of the problems identified sprang from the lack of coordination of research support at Kwantlen. Many separate departments play some role in supporting the work of RAs and, thus, the researchers for whom they work. These units largely operate in isolation from one another, causing confusion and inefficiencies that are detrimental to the research enterprise as a whole at Kwantlen. While the participants in this study did not have the express power to change the organizational systems regarding RAs, they were experts in the sense that they experienced the environment first-hand and were positioned to provide voices from the field. Wheatley and Kellner-Rogers (1998) advised organizations to listen to the stakeholders (para. 24). Cull (2001) stated, "There have been no 'ideal models' [of decision-making] existing independently from the people who use the system, and the circumstances in which they work" (p. 134). The message that I heard from the study's participants leads me to the following major recommendation: Expand the role of ORS, with appropriate funding, to better meet the needs of researchers and RAs.

It became evident that there is an organizational vacuum at Kwantlen in the coordination and support for research. Almost all of the unmet needs expressed by RAs

and faculty researchers stemmed from there being no specific unit responsible for coordinating the myriad gaps that range from the lack of a clear hiring mechanism, to lack of job descriptions and standardized wage rates, to lack of adequate promotion of research. The resulting confusion and inefficiency wastes scarce research time, reduces research productivity, and could contribute to faculty burnout.

Kwantlen's Office of Research and Scholarship would seem to be the logical unit to fulfill this role. ORS is well-established, has dedicated space and staff, and is involved in managing research funds. It will soon be providing additional support with grant application writing for researchers. It does not, however, take an active role in many other areas of research support. The scope of its mandate and the rationale for the prioritization of its efforts were unclear to the researchers I interviewed, who wondered why the ORS was not addressing the problems they had identified. One wrote, "ORS has to have a much bigger profile at Kwantlen. The director of ORS needs to be talking and meeting with faculty to see what they want and need."

ORS could not be expected to expand its role without additional resources. Kwantlen will need to provide adequate resources in order to walk the talk in supporting research at Kwantlen. With appropriate infrastructure and staff levels, ORS could become the key driver in the development of a strong research culture at the university: a link that is missing today.

RAs and researchers identified four broad areas requiring attention. I have recommended specific actions in each area that could be undertaken by a coordinating unit such as ORS. These broad areas are: policies and procedures, training, infrastructure and funding, and fostering a research culture. The recommended actions in each section

are arranged in order by the estimated time required for implementation: short-term (i.e., less than a year), medium-term (i.e., one to two years), and long-term (i.e., two to five years). Short-term actions are relatively easily implemented and funded. Senge (2006) stated that in systems thinking, “small, well-focused actions can sometimes produce significant, enduring improvements” (p. 64). This is termed leverage, and these potential actions are not always obvious. Medium- and long-term actions require more planning and budgetary support. They will, however, empower the university’s RAs and researchers and build a strong researching community at Kwantlen.

Key Recommendation: Expand the Role of Office of Research and Scholarship, with Appropriate Funding, to Better Meet the Needs of Researchers and Research Assistants

The recommended actions are grouped below under the broad areas identified in my analysis. These actions address policies and procedures, training, infrastructure, and fostering a research culture.

Policies and procedures. The institution’s policies, and the procedures that flow from them, guide the community in operating both effectively and efficiently.

Short-term. The following action should be achievable in less than one year within existing budget parameters: create a core job description for research assistants.

Create a core job description for research assistants. Improving the RA hiring process could begin with writing a core job description that would assist in establishment of standardized pay scales. The lack of a standard job title on Contract to Purchase documents and the absence of any mechanism to track the number of contracts issued to RAs until last year speaks significantly to the inattention that RAs have received. The

wording of contracts for RAs hired in the past year could be used to identify core job elements and to differentiate RA positions from student assistant or other positions. This would assist in the determination of appropriate wage rates. At present, there appears to be no way to ensure that RAs are not hired as lower-paid student assistants. A job description would also provide a basis for formal performance appraisals (Gift et al., 1991, p. 232). Other categories, such as research associate, could be added as required, with their own distinctive job descriptions.

Medium-term. The following actions would require one to two years to complete: (a) involve Cooperative Education and/or Career Services in recruitment of RAs, (b) formally recognize RA positions in the university's staffing policies, (c) provide benefits or a percentage of wages in lieu of benefits for RAs, and (d) establish or clarify appropriate policies that legitimize and protect both RAs and faculty researchers.

Involve Cooperative Education and/or Career Services in recruitment of RAs.

Recruitment could be made more inclusive by using the services of the Centre for Cooperative Education and Career Services departments. Posting of RA positions could be done through their established protocols, providing on-line information on requirements and opportunities and on-line applications. This use of existing resources would provide another leverage opportunity by using a department that is already linking employers with students. The Director of Kwantlen's Centre for Cooperative Education and Career Services (personal communication, December 22, 2010) stated,

It is my understanding that several other postsecondary institutions in BC (UVic in particular) have many Co-op students each semester working in research assistant roles. I see these opportunities as a great fit for Kwantlen students in programs that offer Co-op and a helpful recruitment tool for faculty looking to hire the right candidate.

To maximize the visibility of RA opportunities, the ORS and departmental websites could link to the Cooperative Education or Career Services website. This would increase access to the jobs by all qualified applicants and avoid possible accusations of discriminatory hiring practices.

Formally recognize RA positions in the university's staffing policies. RA positions are not named in Kwantlen's staff policies. The current staff collective agreement includes a "Letter of Understanding #3" (KPU, 2006) regarding student assistants, who are paid minimum wages, but no mention is made of RAs. Neither are they mentioned in Policy G16, Employment/Students (KPU, 2005), though the latter does cover Co-op students, summer student programs that are funded by government program, and student assistants. This contributes to the lack of clarity surrounding the management of RAs. Faculty suggested investigating alternatives to RAs being hired on Contract to Purchase. This, according to the Executive Director of the ORS, has been discussed with Human Resource Services (personal communication, October 7, 2009), but there has been no conclusive action.

Provide benefits or a percentage of wages in lieu of benefits for RAs. RAs suggested exploring the idea of giving them employee benefits. Logistically, this may need to be a percentage in lieu of benefits for part-time work. Under the present Contract to Purchase arrangement they receive vacation pay of four percent, but no pay in lieu for benefits.

Establish or clarify appropriate policies that legitimize and protect both RAs (paid and volunteers) and faculty researchers. Some policies and practices related to RAs require clarification, including: researchers hiring RAs from their current classes;

students continuing to work as RAs after graduation, and ensuring that volunteer RAs are not exploited. Researchers also expressed a desire for their role in mentoring students to be formally recognized, which is in line with the literature (Kinhead, 2003, p. 13).

Faculty and, to a lesser degree, RAs recommended that Kwantlen address the overarching policies and procedures that involve research activity. While this falls outside the scope of this study, I have drawn attention to these broader issues in my Observation for Further Consideration comments at the end of this section.

Training. The provision of basic information about RA positions and the training of both RAs and researching faculty were seen to be priorities by both groups of participants. These, too, should be coordinated by a central body to ensure efficient use of Kwantlen resources.

Short-term. The following recommended actions could be achieved in less than one year and at minimal cost: (a) create an RA orientation manual and a training handbook, (b) create a handbook for new researchers, and (c) organize frequent training opportunities.

Create an RA orientation manual and a training handbook. Both RAs and researchers expressed the need for a document that would contain information that an RA would need upon hiring. This orientation manual could include the logistics of how to be paid; guidelines about working conditions, such as coffee and meal breaks and travel expenses; expectations for their conduct and behaviour; and risk management issues, such as driving a professor or safety in the workplace. It could be reviewed by the Human Resource Services department to ensure compliance with all institutional policies and the British Columbia Employment Standards Act (1996). The training of RAs could be

addressed initially through producing a handbook. This could be accomplished quickly by adapting a manual produced by one of the researchers interviewed in this study, who has already expressed a willingness to share this resource. The manual could be revised with a view to the general training needs of all RAs and a new handbook made available on the ORS website. This could be further revised as needed by individual researchers or faculties for specific projects and made available on departmental websites. Topics could include interview and other data-collection procedures, data entry, writing protocols, and statistics.

Create a handbook for new researchers. Provision of a handbook or guide for new researchers that includes such topics as how to set up a lab and how to access external and internal funding could be produced and posted on the ORS website, with links to other areas of the website that specify the available internal grants and provision of other links to external granting agencies and foundations. This handbook would address the new researcher's questions about how to go about hiring an RA and provide guidance about supervising, mentoring, and giving feedback to the student.

Organize frequent training opportunities. Both the RA and researcher groups expressed the desire for more training opportunities. All were interested in building specific research skills (e.g., using SPSS, Excel, and APA style) and about research-related topics (e.g., Research Ethics Board applications). Provision of seminars for new and existing researchers and RAs would encourage the practice of hiring RAs and give undergraduate students more opportunities for work-based learning experiences. Faculty expressed their need for sessions on getting started as a researcher, including the hiring, training, and supervision of RAs. RAs recommended offering sessions about RA work

for students. Both groups felt that ORS should take a lead role in coordinating, scheduling, and promoting such sessions on a regular basis, though the training would not necessarily have to be provided by ORS. Existing internal professional development avenues such as the Centre for Academic Growth could provide the infrastructure for promotion and program registration. Likewise, faculty specialists such as librarians could provide appropriate sessions tailored to particular groups. Researchers could also recommend that their RAs schedule one-on-one research sessions with liaison librarians in their subject areas. Benton (2004) wrote, “The librarians are almost always your best friend when you are out of your depth. . . . No matter how theoretically sophisticated you think yourself, any experienced librarian probably knows more about practicalities of research than you will ever know” (para. 22).

Infrastructure. A solid foundation of adequate services and facilities for the researching community would enable the RAs to operate in a welcoming environment free of roadblocks to their successful work-based learning experiences.

Short-term. The following issue was a frequent topic raised by the RA participants. These important and easily-obtainable items could be provided in a short time.

Provide access to lockable filing cabinets and office supplies for research assistants. During the RA focus groups, it became evident that provision of surprisingly small budget items such as filing cabinets would make a big impact relative to the cost. RAs were aware that data and other confidential material must be stored securely, and they spoke of the shortage of such basic items as on-campus lockable filing cabinets and office supplies.

Medium-term. The following action represents a work-in-progress. Although significant progress has been accomplished, there are technical issues to be resolved. In addition, the playing field continues to be enlarged with the addition of new types of RAs beyond the undergraduate level.

Streamline access to library resources for all researching personnel. I first became aware of issues faced by RAs two years ago when I learned of the problems they encountered in obtaining faculty-level library privileges needed in order to do their jobs. It opened a Pandora's Box, which revealed many other problems caused by the fragmentation of responsibility for research support at Kwantlen. Since then, the Library has initiated a cross-departmental consultation to identify the underlying causes of these library access problems and to work on a coordinated solution. It is still a work in progress. According to the Circulation Librarian (personal communication, February 14, 2011),

Kwantlen's research mandate has pinpointed the need to provide library privileges and computer access to an increasing variety of categories of "affiliates". Where once we had employees, students and community borrowers, we now have categories such as: Research Assistants, Research Facilitators, Research Coordinators, International Post Graduates, Affiliates, Visiting Scholars, Fellows, Volunteers and undoubtedly more to come. The process to develop streamlined procedures to provide Research Assistants with the appropriate privileges and access has been ongoing for over a year. . . . These procedures, though workable, still require a high level of manual intervention. . . . Further efforts will be concentrated on working with our IET department to implement an automatic download that will setup Research Assistants with computer access.

Long-term. The actions listed below will take longer (i.e., two to five years) and require more resources, but they will have significant impact upon the undergraduate RA:

- (a) provide tools to support collaborative research, (b) plan for increased research space, and (c) increase funding for research.

Provide tools to support collaborative research. A clear theme emerged in my talks with RAs and researchers: the importance of relationships. Productive relationships require good communication. Kouzes and Posner (2007) stated, “In an ever more complex, wired world, the winning strategies will be based on the ‘we not I’ philosophy. Collaboration is a social imperative—without it you can’t get extraordinary things done in organizations” (p. 224). Collaboration is, of course, made easier by technological advances (McGehee, 2001, p. 48). Many RAs have no dedicated workstation or office space; many work largely at home. It is challenging to synchronize the busy schedules of both students and researchers, who may be spread across four campuses or be off-campus, and there is a growing need for alternative meeting options. The need is even greater for larger research teams. However, the availability of web conferencing and other supports for such collaboration is very limited. Likewise, many RAs require access to computers and specialized software such as SPSS or ArcGIS, as well as technical support and expertise, which may not be readily available. Faculty participants expressed the need for the IET department to understand what they need to further their research agenda. They recognized the budget and staffing constraints of IET, but considered it to be essential that appropriate tools and access to technical support be provided in order to conduct research effectively at Kwantlen.

Plan for increased research space. The need for space for RAs to find a home at Kwantlen was clearly expressed, particularly by the RA participants. An excellent example is Vancouver Island University providing a conference room, with a capacity for 20-24; social area room with computer workstations, with a capacity for 35-40; and meeting rooms, with a capacity for 10-15, for their research community. This is a

particular challenge for Kwantlen, which has much less space available per student than other BC institutions that participated in the recent Survey of Facilities Performance Indicators by the Association of Physical Plant Administrators (Atkinson, 2011b).

Increase funding for research. Researchers expressed the need for more and expanded internal funding for research, especially time release from teaching. Increased funding would encourage the use of undergraduate RAs in research projects. A concern that faculty expressed is the lack of time to both teach and conduct research. Faculty suggested expanding the Minor Research Grants for longer periods of time and, with more funding, to give them the opportunity for concentrated focus for their projects and more attention to their RAs. In addition to release from teaching, the literature described innovative ways of ascribing research activities toward teaching responsibilities. Elmes-Crahall (1992) stated, “Many undergraduate ‘teaching’ institutions have developed creative faculty assignments that link research to classroom teaching responsibilities” (p. 7). Plante’s (1998) model of a “large number of students working on multiple concurrent projects with one faculty member . . . a more efficient way to conduct faculty-student collaborative research” (p. 128) could be considered in order to maximize the research potential of one faculty member.

Fostering a research culture. The recognition and encouragement of research activity at Kwantlen would have a direct effect upon undergraduate student RAs. Both RAs and researchers expressed the desire for an elevated profile for their research projects and the individual RAs and faculty who are involved.

Long-term. All of the remaining recommended actions will be long-term efforts with both operating and capital budgetary implications: (a) provide details of current

research projects on the ORS website, (b) increase publicity of research projects, (c) create a scholarship database, (d) increase events that raise the profile of research and create a vibrant research environment, and (e) encourage a research community of practice.

Provide details of current research projects on the ORS website. The ORS website could have a section with researchers' projects and their photos and RAs' photos, which would be a central resource that lists all faculty and their interests and research profile. One researcher remarked, "There doesn't seem to be much research going on, although of course one doesn't know exactly how much." This information could be easily accessible if available on the ORS website. In addition, the Research Ethics Board could publish statistics recording the number of proposals that are approved each year, with details such as the category of researcher (i.e., Kwantlen Psychology faculty, external researcher, Kwantlen student) and the name of the projects.

Increase publicity of research projects and events that raise the profile of research and create a vibrant research environment. Both RAs and faculty participants expressed the researching community needs to have a higher profile. Suggestions, in addition to increased efforts of ORS, were made to further emphasize Kwantlen research by focusing on the research going on at Kwantlen in press releases and through internal announcements and student newspapers. There could be an on-going project for the Journalism program students to have a regular feature on research, highlighting RAs and faculty and the projects they are working on. RAs would welcome events that highlight research as well as their own contributions. Annual events that highlight faculty research projects, and the RAs who are involved, would inform the community, while elevating

and recognizing the RAs (Kinhead, 2003, p. 13). RAs should be acknowledged in Student Life activities. The Kwantlen community could invite RAs to events such as Student Life dinners and any occasions that are arranged to highlight research. Faculty suggested events like the Speakers' Series running in the Surrey campus library, connecting students with researching faculty, should become commonplace and be well-advertised both internally and externally. This could interest undergraduate students in becoming RAs. A recent on-line posting of announcements was heartening, in that of the five announcements, three were research-related (Today@Kwantlen, personal communication, February 8, 2011).

Create a scholarship database. A current project in the development stage is a Kwantlen scholarship database. This project has pulled together several key stakeholders: the Dean of Social Sciences, the Executive Director of ORS, the Director of IET, the University Librarian, and several librarians including the Research Support, Systems, and Technical Services librarians. The goal is to develop a rich collection of scholarly documents reflecting the dynamic, but currently fragmented, scholarly community.

Encourage a research community of practice. Both the RAs and researchers welcomed the opportunity for knowledge exchange by bringing often-isolated individuals together to share their experiences and expertise. Based on the focus groups, the researching community seems to be exhibiting the characteristics of communities of practice (Wenger et al., 2002, p. 4), which could be further encouraged. Wenger and Snyder (2000) stated they are formed for community-based learning and driven by "the increased realization that most fields of expertise are now too complex for any one person

to master and thus collective intelligence must be brought to bear to solve important problems” (para. 6). They further stated,

Communities of Practice are groups of people who share expertise and passion about a topic and interact on an ongoing basis to further their learning in this domain. . . . Members typically solve problems, discuss insights, and share information. They talk about their lives, interests, and ambitions. They mentor and coach each other, make plans for community activities (meetings and conferences as well as social gatherings), and develop tools and frameworks that become part of the common knowledge of the community. Over time, these mutual interactions and relationships build up a shared body of knowledge and a sense of identity. (para. 10)

Wenger et al. (2002) identified communities of practice as “a natural part of organizational life. They will develop on their own and many will flourish, whether or not the organization recognizes them” (p. 12). However, organizations that cultivate communities of practice contribute to the groups’ success:

Organizations can do a lot to create an environment in which they can prosper: valuing the learning they do, making time and other resources available for their work, encouraging participation, and removing barriers. Creating such a context also entails integrating communities in the organization—giving them a voice in decisions and legitimacy in influencing operating units, and developing internal processes for managing the value they create. (p. 13)

Kwantlen researchers and RAs have already begun to experience the many short-term and long-term benefits to the organization and to being members of communities of practice (p. 16). The introduction of an electronic meeting-place for RAs would enhance the connection that started in the focus groups between RAs of various faculties. The institution, specifically ORS, could serve as the conduit for the growth of a lively community of practice within the researching community.

Value research assistants by providing them with additional funding and support.

Establishment of an RA monetary award through the Kwantlen Foundation was

suggested by the RAs. Similarly, faculty could be given funding for research through the Kwantlen Foundation: a faculty member's area of research interest could be matched with an interested donor. Research chair positions could be increased. RAs could be considered part of Kwantlen's future co-curricular record, which "documents and validates student volunteer experiences as a complement to the traditional academic transcript" (Lewington, 2010, para. 2) and "foster[s] an atmosphere of 'work hard, play well'" (Kinhead, 2003, p. 9). Wilfred Laurier University, for example, expects to offer new scholarships and financial help in other forms to assist students in paying for their studies while having "experiential learning" opportunities (Lewington, 2010, para. 9). Kinhead (2003) reported involving the Student Association in supporting undergraduate student research presentations at conferences by supporting a travel fund (p. 12). This could be suggested to the Kwantlen Student Association.

The major recommendation with attached actions has been the focus of this chapter. In addition, I am providing an important observation for further consideration.

Observation: Kwantlen Should Consider Establishing an Institution-Wide Body to Provide Leadership, Guidance, and Policy Direction to Kwantlen's Research Community

Kwantlen has committed itself to becoming a strong centre of applied research and to providing students with work-based learning opportunities. However, progress has been slow and is hobbled by internal conflict over the legitimate role of research at the institution. Kwantlen's ambiguous research mandate creates and perpetuates a state of uncertainty which hinders progress. Currently, faculty members are divided about Kwantlen's research versus teaching mandate. From its inception, Kwantlen has been

teaching-focused. A significant portion of the Kwantlen Faculty Association members seem to want it to remain so. If Kwantlen wishes to evolve as a polytechnic university that supports research, this issue must be addressed.

Such fundamental internal conflicts, however, will require extensive and ongoing consultation with the entire Kwantlen community and, potentially, large-scale re-organization. The university might want to consider creating a standing body on research, perhaps under the auspices of the Senate, with broad representation from all stakeholders. This might provide an appropriate forum to conduct such ongoing consultations, establish research policies and priorities, and make recommendations on funding requirements.

Such an undertaking is far beyond my scope of influence. However, it was clear from my findings that this is an essential step for Kwantlen and could do much to enable faculty to develop strong research programs, which, in turn, would support and increase the opportunities for undergraduate students to enhance their education through work experience as an RA. I am not in a position to provide specific direction on how the university may wish to proceed on this complex matter, but felt it was important to acknowledge this organizational gap. Therefore, I have not recommended specific steps in this report, but leave it to the university's leadership to chart the best course.

Organizational Implications

Policy reflects vision. Kwantlen's (n.d.f) vision statement records the intention to promote "applied research and scholarly activities that enhance our teaching and enrich our communities" (Our Communities section, para. 3). What is a polytechnic university, and how much research should be conducted under its auspices? These questions continue to challenge the community, but the policies that emerge from the interpretation

of the Kwantlen vision statement can address the role that research will play in its organizational life. By extension, the life that a Kwantlen undergraduate student RA experiences can be richer and less fraught with obstacles if the organizational practice becomes more focused, efficient, and encompassing.

Research touches most parts of the organization, not just the faculties, ORS, and the Library. It also affects Finance, the Office of Advancement, and IET. In addition, other areas have emerged, such as the governance issues and planning gaps within Kwantlen's Senate with regards to research. The *Strategic Research Plan* (Kwantlen University College, 2003) addressed many of the same issues that are mentioned in this report, such as the need to provide time for research (p. 16). The plan to establish teaching assistants to relieve researching faculty has not as yet come to life. RAs continue to be involved in faculty research despite the absence of a coherent and long-term budgeted research plan. What meaning does the organization assign to the work of RAs? In any system, we seek to understand first how it works, what the structure is, and determine the organization of power. Stanitski, Frankfort, and Muir (1986) stated that when students have opportunities to work with faculty, the organization has higher enrollments (p. 52). Elmes-Crahall (1992) identified the benefit to the institution of student involvement in faculty research in student recruitment (p. 19). Both RA and faculty participants in my study expressed that Kwantlen's organizational structure should provide a grounded organizational home for RAs: a place to go and to be. Combing the data for meaning, it became evident that RAs desire to be integrated into the organization. In essence, noses are pressed against the window, wondering if they belong. The community will choose whether room is made for them at the table. Currently, the

organizational practices were seen to be disconnected, informal, and unfocused, which is a systemic problem with policy and funding issues.

In order for there to be formal recognition and positioning of the RAs, the participants felt the institution must invest attention, time, and funding into this issue. The RAs were asking for space; they were in a sense homeless. They need to be brought in from the cold and into the shelter of the organization. Like many homeless people, the RAs are essentially disenfranchised; they do not know how to access services. There needs to be an articulated, academic vision within which the role of research is legitimized: a strategic plan for research that is intrinsic to the university's future strategic plan. The ORS, the Library, Kwantlen's research institutes, individual faculty, IET, Finance, and Human Resources Services all feed into a legitimized research role for the institution and for the RA. The employing of RAs needs to have a formalized process in order to make it work, with input from all departments.

We are presently at the beginning of the book, writing the background and prologue of the RA story at Kwantlen. What will the story be? One of Kwantlen's researchers responded to Kwantlen's draft vision statement:

The reference to "applied education" and "applied research" help separate Kwantlen from other institutions (a good thing). But, some of us do 'traditional education' and 'basic' research'. These latter pursuits also serve foundational roles in traditional polytechnics. I think that the focus on 'applied' is good, but perhaps misleading and limiting.

This illustrates the lack of clarity that continues to exist regarding research at the institution, which if not addressed, will result in continuing morale debilitation and process inefficiencies.

Bolman and Deal (2008) introduced ways or frames of observing organizations. The political frame “recognizes the importance of individual (and group) needs but emphasizes that scarce resources and incompatible preferences cause needs to collide. The political issue is how competing groups articulate preferences and mobilize power to get what they want” (p. 201). Power is not presented as negative, but productive. The many-faceted Kwantlen organization is in continual motion, with all parts holding up their financial and other needs. Priorities are challenging to decide, and guidelines such as governmental objectives, vision statements, mission and mandate clarity, and strategic goals are critical. With the university president’s recent announcement that he will be leaving this summer, the institution is undoubtedly about to experience the effects of yet another transition as the search for a new president occurs. Bolman and Deal’s structural frame included the view that “structures must be designed to fit an organization’s current circumstances (including its goals, technology, workforce and environment)” (p. 47). The structural frame reveals the need for adjustment due to changing circumstances, and Kwantlen is experiencing the continuum of identity change. It struggled with its identity as a university college (Fleming & Lee, 2009, p. 93, 98). It is again struggling with defining its identity as a regional polytechnic university. As Fleming and Lee (2009) stated, “The redesignation of KUC as a university, in common with the other former BC university colleges, does not resolve the tenuous balance between legitimation and identity” (p. 106). An aspect of the human resources frame was the good match where “individuals find meaningful and satisfying work, and organizations get the talent and energy they need to succeed” (Bolman & Deal, 2008, p. 122). RAs fit into this frame as parties in the goal of educational engagement and the institution’s research mandate. The

symbolic frame revealed that “culture forms the superglue that bonds an organization, unites people, and helps an enterprise accomplish desired ends” (Bolman & Deal, 2008, p. 253). I perceived that individual research groups of RAs and researchers have indeed formed a culture within their own realities. Through these frames, one can peer out at the research landscape at Kwantlen and understand in different ways. “Like maps, frames are both windows on a territory and tools for navigation” (p. 13), giving us multiple perspectives.

The Boyer Commission (1998) identified some major issues in post-secondary education in the United States: issues that have been intensely discussed and purposely addressed. Though The Boyer Commission specifically addressed research universities in the United States, there are principles that undergraduate universities in Canada could find instructive, in particular: the relationship between teaching and research (p. 33); the value of undergraduate research experience (p. 34); the importance of mentoring undergraduates (pp. 17, 22); and cultivating a “sense of place” at universities (p. 35).

Kwantlen’s ORS adopted Boyer’s (1990) definition of research to appropriately capture the scope of research that is valued and supported at Kwantlen. “All forms of scholarship and research are eligible including scholarship of teaching, scholarship of discovery, scholarship of integration, scholarship of application and scholarship of creative artistry (i.e. the Kwantlen definition of scholarship, based on Boyer)” (KPU, 2009a, p. 2). Jones and Draheim (1994) stated, “The benefits of undergraduate assistance accrue not only to the professor and the student, but to the college or university as well” (p. 94).

A small number of degree students have been hired at Kwantlen, and some of these are from other institutions. Researchers are being contacted by students from other institutions, wanting to work on their projects because at Kwantlen they would have the opportunity for multiple research experiences rather than perhaps only doing one thing at their own university. This practice could be leveraged to increase Kwantlen's research profile in the community.

Exploration and analysis of best practices was a natural outcome of the literature review I conducted during the proposal stage. I examined the websites of various institutions. The websites gave a snapshot of the positioning of RAs at their institutions. Some had clear instructions on how to hire RAs, and some had good brochures that researchers can use to familiarize themselves with the steps and processes necessary to begin a research project, including links to external funding sources. Notable is Mount Royal University's (n.d.) brochure on hiring RAs; their Find a Research Job under a future link of Students and Research; and Celebrating Research, which has links to photos of researchers one can click on for details and the ability to search by faculty or department, topic or keyword. Acadia University (n.d.) had a useful guide to the administration of research grants and contracts. Ryerson University (n.d.) hired undergraduate RAs through an experiential learning program, which included a website that listed details of RA jobs for work-study students. The Finance department of Thompson Rivers University (n.d.a, para. 1) offered information about hiring RAs, who are unionized, and their Office of Research Services provided a good hiring form (Thompson Rivers University, n.d.b). As mentioned in chapter three, the University of the Fraser Valley (n.d.c) stated on their website: "conducting research is part of the duties

of all faculty members” (para. 2), and they were encouraged to apply for a one-course release from teaching each year. Their Research office offered funding to hire 30 RAs per year (n.d.c., para. 1) for 60 hours each and work-study opportunities as well (n.d.a, para. 5). Vancouver Island University (n.d.) had a good FAQ section with information about hiring RAs, annual reports of research and scholarly activities, and information about booking of short-term workspace for researchers and RAs. A Kwantlen researcher participant said Vancouver Island University is a good model. As mentioned in chapter three, their academic plan included research and its connection to the university’s support services (Vancouver Island University, 2010, p. 18).

Relationships will continue to keep RAs active at Kwantlen even without strong institutional support or formal recognition. However, if the challenges RAs and researchers have expressed are addressed as part of Kwantlen’s ongoing organizational change efforts toward becoming British Columbia’s polytechnic university, the RAs’ sense of presence and value will increase, benefitting all stakeholders. There is an opportunity for Kwantlen to become a leader as its fundamental redefinition unfolds. From struggling to define the hybrid university college (Fleming & Lee, 2009, p. 93) to grappling with defining another hybrid polytechnic university, the institution could also address the unique positioning of its RAs. Hu et al. (2007) stated,

In terms of doing research with a faculty member, the impact of the experience surely must depend on the quality of the relationship between student and faculty member, the length and nature of the research project, the role of the student, and the nature and frequency of feedback the student receives during the endeavor. Thus, there is much more to learn about the effects of student-faculty research and the characteristics of such collaborative efforts that make for a productive, rewarding activity for both partners. (p. 175)

Implications for Future Inquiry

This study has addressed the positioning and training of RAs at Kwantlen. There are indications that future studies could be useful in addressing related questions. This inquiry occurred in the fall of 2010, and Kwantlen's organizational life proceeds apace. The current researching community incorporates mostly undergraduate student RAs, with individual researchers employing one or more RA and teams of researchers requiring teams of RAs. This inquiry did not include RAs working off campus, another pocket of the currently low-profile RA activity (Librarian, personal communication, January 19, 2011), and prospective research could include these individuals. Future opportunities for inquiry could also focus on the other groups of RAs or research associates who are beginning to contribute to the research community: masters and doctoral students from other institutions, post-graduate scholars, international graduate students, volunteer researchers, and paid or unpaid fellows (Director, Institute for Sustainable Horticulture, personal communication, January 19, 2011). Faculty participants mentioned research collaborations, for example with the University of British Columbia or University of Northern British Columbia. Word of mouth and an emerging reputation also brought non-Kwantlen students to the researcher. In some cases, they were undergraduates, graduate students, or post doctorates.

The opportunities of public-private research partnerships make this an area of interest for further inquiry. Garrett-Jones, Turpin, Burns, and Diment (2005) stated,

Research is increasingly being carried out in organisational forms, such as university-industry collaborative research centres, built around cross-sectoral and transdisciplinary teams with well-defined national social, economic or environmental objectives in mind. The work of these centres goes beyond

“applied research” in the accepted sense to span fundamental research and applied knowledge. (p. 536)

Munn-Venn (2006) pointed out the benefits to university researchers of public-private collaborative research projects (p. ii). In addition, giving students opportunities to be involved “will help to build the critical capabilities of Canada’s future labour force” (p. ii). “Industry-university linkages . . . are part of a dynamic process within which there are a range of different but interrelated benefits for both sectors” (Turpin, Garret-Jones, & Rankin, 1996, pp. 269-270). Turpin et al. (1996) advocated “regenerating science with community cultures” (p. 281).

Further study could be directed toward designing courses in research that link faculty research to student learning and mentoring (Wheeler, Hardie, Schell, & Plowfield, 2008, pp. 12-14). This could decrease the need for funded RA support while preparing students for future RA or graduate research possibilities.

During this study, I gave Kwantlen RAs an opportunity to see that though they are inside the system, they have an opportunity to explore how the system can be altered to create a new paradigm at Kwantlen regarding the way RAs intersect with the institution. According to Glesne (2006), action research, first practiced by Kurt Lewin in the mid-1900s, “has experienced popularity again, particularly in education, as a way to improve practice” (p. 17). Lomax (2007) said that in action research, “the researcher intentionally sets out to change the situation being studied” (p. 157). The action research cycle allows a researcher to move through subsequent cycles to “review (look again), reflect (reanalyze) and re-act (modify their actions)”, sometimes in a different order (Stringer, 2007, p. 9). The beauty of this process is that in the focus groups, for example, I was able

to observe the observers, interact with the thinkers, and record the recommended actions. This report is another cycle of reviewing and reflecting on my experience and inquiry into the scholarly literature, the participants' experiences and opinions, and the organizational practices of Kwantlen and other institutions, as well as recommending action based on this review and reflection. The cycle goes further relative to the will of the organization to continue this process to a point where the RAs go beyond isolation to a dynamic research environment in which the ORS, the Library, the IET department, senior administration, faculty, unions, Human Resources Services, Finance, and even the Student Association are contributing to the success of the undergraduate student RA.

The addition of undergraduate student RAs to research teams at Kwantlen provides value for students, faculty, and the institution. Jones and Draheim's (1994) statement holds true for Kwantlen in 2011: "During this era when funding is limited, yet expectations for strong research and excellent teaching remain high, the time has come for increased undergraduate involvement in faculty scholarship" (p. 95). The ways by which we position and train RAs must be focused on success for the RAs, for in doing so, we ensure positive outcomes for researching faculty and the institution, but most importantly for the students who stand at the centre of Kwantlen Polytechnic University's life.

REFERENCES

- Acadia University. (n.d.). *Research*. Retrieved from <http://www2.acadiau.ca/research.html>
- Agger-Gupta, N. (2010a). *Appreciative inquiry: Mental model, organizational change catalyst, & potential inquiry method* [Class handout]. Victoria, British Columbia, Canada: Royal Roads University.
- Agger-Gupta, N. (2010b). *Appreciative inquiry: Mental model, organizational change catalyst, inquiry method* [PowerPoint slides]. Victoria, British Columbia, Canada: Royal Roads University.
- Association of College and Research Libraries. (2000). *Information literacy competency standards for higher education*. Retrieved from <http://ala.org/ala/mgrps/divs/acrl/standards/standards.pdf>
- Association of College and Research Libraries. (2007, February 13). *White Paper on changing roles of academic and research libraries*. Retrieved from <http://ala.org/ala/mgrps/divs/acrl/issues/value/changingroles.cfm>
- Association of Universities and Colleges of Canada. (2008). *Finance. Trends in higher education*. Retrieved from http://www.aucc.ca/_pdf/english/publications/trends_2008_vol3_e.pdf
- Association of Universities and Colleges of Canada. (2010, March 4). *Budget investments in university research a “strategic choice” says AUCC* [Press release]. Retrieved from http://www.aucc.ca/publications/media/2010/budget_03_04_e.html
- Atkinson, D. W. (2009, September). *President’s Newsletter, 6*. Retrieved from <http://www.kwantlen.ca/president/newsletters/issue6.html>
- Atkinson, D. W. (2010, March). *President’s Newsletter, 9*. Retrieved from <http://www.kwantlen.ca/president/newsletters/issue9.html>
- Atkinson, D. W. (2011a, January). *President’s Newsletter, 14*. Retrieved from <http://www.kwantlen.ca/president/newsletters/issue14.html>
- Atkinson, D. W. (2011b, March). *President’s Newsletter, 15*. Retrieved from <http://www.kwantlen.ca/president/newsletters/issue15.html>
- Baker, W. (2003, Spring). Building collaborative relationships. *Leader to Leader*, 28, 11–15. Retrieved from the ABI/INFORM Global database.
- Bentley, D. M. R. (1994). *Research-teaching: The fundamental business of Canadian universities*. Retrieved from http://www.uwo.ca/english/canadianpoetry/research_training.htm

- Benton, T. H. (2004). Tireless research assistants. *Chronicle of Higher Education*, 51 (14), C1–C4. Retrieved from the Academic Search Premier database.
- Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass.
- Boyer, E. L. (1990). *Scholarship reconsidered*. San Francisco, CA: The Carnegie Foundation for the Advancement of Teaching.
- Boyer Commission on Educating Undergraduates in the Research University. (1998). *Reinventing undergraduate education: A blueprint for America's research universities*. Retrieved from [http://naples.cc.sunysb.edu/pres/boyer.nsf/673918d46fbf653e852565ec0056ff3e/d955b61ffddd590a852565ec005717ae/\\$FILE/boyer.pdf](http://naples.cc.sunysb.edu/pres/boyer.nsf/673918d46fbf653e852565ec0056ff3e/d955b61ffddd590a852565ec005717ae/$FILE/boyer.pdf)
- Bridges, W. (2003). *Managing transitions: Making the most of change* (2nd ed.). Cambridge, MA: Da Capo Press.
- Bridges, W., & Mitchell, S. (2000, Spring). Leading transition: A new model for change. *Leader to Leader*, 16, 30–36. Retrieved from the ABI/INFORM Global database.
- Burns, C. (2009, November 21). *Report on library support for research & scholarship at Kwantlen Polytechnic University*. Surrey, British Columbia, Canada: Kwantlen Polytechnic University, Coast Capital Library.
- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada. (1998). *Tri-Council policy statement: Ethical conduct for research involving humans (with 2000, 2002 and 2005 amendments)*. Retrieved from <http://www.pre.ethics.gc.ca/english/policystatement/policystatement.cfm>
- Chiu, L. F. (2003). Transformational potential of focus group practice in participatory action research. *Action Research*, 1(2), 165–183. doi:10.1177/14767503030012006
- Coghlan, D., & Brannick, T. (2005). *Doing action research in your organization*. Thousand Oaks, CA: Sage.
- College and Institute Act. R.S.B.C. 1996, c. 52. [British Columbia]
- Cooperrider, D. L., & Whitney, D. (2005). *Appreciative inquiry: A positive revolution in change*. [Books24x7 version]. Retrieved from Books24x7.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

- Crossan, M., Lane, H., & White, R. (1999). An organizational learning framework: From intuition to institution. *The Academy of Management Review*, 24(3), 522–537. doi:10.2307/259140
- Cull, E. (2001). The delicate interface of political and public service decision-making. In M. Picard (Ed.), *Change delivered: Leadership through public service* (pp. 129–140). Victoria, British Columbia, Canada: Royal Roads University.
- Dick, B. (1998a). *Occasional pieces in action research methodology 3: Critical thinking (1)*. Retrieved from <http://www.scu.edu.au/schools/gcm/ar/arm/op003.html>
- Dick, B. (1998b). *Occasional pieces in action research methodology 4: Critical thinking (2)*. Retrieved from <http://www.scu.edu.au/schools/gcm/ar/arm/op004.html>
- Dick, B. (1998c). *Occasional pieces in action research methodology 9: Cyclic critical reflection*. Retrieved from <http://www.scu.edu.au/schools/gcm/ar/arm/op009.html>
- Dick, B. (1998d). *Occasional pieces in action research methodology 14: Rigour (2)*. Retrieved from <http://www.scu.edu.au/schools/gcm/ar/arm/op014.html>
- Dick, B. (1998e). *Occasional pieces in action research methodology 18: Grounded theory (3)*. Retrieved from <http://www.scu.edu.au/schools/gcm/ar/arm/op018.html>
- Dolan, E. L., & Johnson, D. (2010, Winter). The undergraduate-postgraduate-faculty triad: Unique functions and tensions associated with undergraduate research experiences at research universities. *CBE-Life Sciences Education*, 9, 543–553. doi:10.1187/cbe.10-03-0052
- Dutton, C. (2003). Mentoring: The contextualization of learning – mentor, protégé and organisational gain in higher education. *Education + Training*, 45(1), 22–29. Retrieved from the ABI/INFORM Global database.
- Elmes-Crahall, J. (1992, October 29). *Faculty-undergraduate research collaboration as a response to the tension of twelve-plus hour teaching loads and publishing expectations*. Paper presented at the 78th Annual Meeting of the Speech Communication Association, Chicago, IL. Retrieved from the ERIC database.
- Employment Standards Act, R.S.B.C. 1996, c. 113. [British Columbia]
- Evans, R. I., Rintala, D. H., Guthrie, T. J., & Raines, B. E. (1981). Recruiting and training undergraduate psychology research assistants for longitudinal field investigations. *Teaching of Psychology*, 8(2), 97–100. Retrieved from the Academic Search Premier database.
- Fleming, R., & Lee, G. (2009). Canada: What's in a title? In N. Garrod & B. Macfarlane (Eds.), *Challenging boundaries: Managing the integration of post-secondary education* (pp. 93–109). New York, NY: Routledge.

- Garrett-Jones, S., Turpin, T., Burns, P., & Diment, K. (2005). Common purpose and divided loyalties: The risks and rewards of cross-sector collaboration for academic and government researchers. *R & D Management*, 35(5), 535–544. doi:10.1111/j.1467-9310.2005.00410.x
- Gibson, P. R., Kahn, A. S., & Mathie, V. A. (1996, February). Undergraduate research groups: Two models. *Teaching of Psychology*, 23(1), 36–38. doi:10.1207/s15328023top2301_7
- Gift, A. G., Creasia, J., & Parker, B. (1991). Utilizing research assistants and maintaining research integrity. *Research in Nursing & Health*, 14(3), 229–233. doi:10.1002/nur.4770140310
- Glesne, C. (2006). *Becoming qualitative researchers: An introduction* (3rd ed.). New York, NY: Longman.
- Gonzalez, C. (2001, August 31). Undergraduate research, graduate mentoring, and the university's mission. *Science*, 293, 1624–1626. doi:10.1126/science.1062714
- Goss Gilroy Inc. (2005, May 5). *Student training in SSHRC-funded research: Final report*. (Available from Social Sciences and Humanities Research Council, 350 Albert Street, P.O. Box 1610, Ottawa, ON K1P 6G4 Canada)
- Hawkins, P. (2004). A centennial tribute to Gregory Bateson 1904-1980 and his influence on the fields of organizational development and action research. *Action Research* (2)4, 409–423. doi:10.1177/1476750304047984
- Herr, K., & Anderson, G. L. (2005). *The action research dissertation: A guide for students and faculty*. Thousand Oaks, CA: Sage.
- Hobson, J., Jones, G., & Deane, E. (2005, November). The research assistant: Silenced partner in Australia's knowledge production? *Journal of Higher Education Policy and Management*, 27(3), 357–366. doi:10.1080/13600800500283890
- Hu, S., Kuh, G. D., & Gayles, J. G. (2007, April 4). Engaging undergraduate students in research activities: Are research universities doing a better job? *Innovative Higher Education*, 32, 167–177. doi:10.1007/s10755-007-9043-y
- Hutchinson, T., & Moran, J. (2005). Research assistants: Balancing cost effectiveness and reciprocity. In *Proceedings Faculty of Law Research Interest Group* (pp. 1–17). Paper presented to the QUT Faculty of Law Research Interest Group, Brisbane, Australia. Retrieved from <http://eprints.qut.edu.au/2725/1/2725.pdf>
- Indirect Costs Program, Canada. (2010a, September 21). *About the program*. Retrieved from http://www.indirectcosts.gc.ca/about/index_e.asp

- Indirect Costs Program, Canada. (2010b, March 31). *Grants awarded (2010–11)*. Retrieved from http://www.indirectcosts.gc.ca/grants/2010_e.asp
- Industrial Society. (1997). *Focus groups: Involving employees creatively to influence decisions*. London, England: The Industrial Society.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research*, 61, 505–532. doi:10.3102/00346543061004505
- Jones, J., & Draheim, M. (1994). Mutual benefits: Undergraduate assistance in faculty scholarship. *Journal of Excellence in College Teaching*, 5(2), 85–96.
- Jones, J. L. (1993, Winter). TA training: From the TA's point of view. *Innovative Higher Education*, 18(2), 147–161. doi:10.1007/BF01191892
- Kerno, S. J., Jr., & Mace, S. L. (2010). Communities of practice: Beyond teams. *Advances in Developing Human Resources*, 12(1), 78–92. doi:10.1177/1523422310365341
- Kierniesky, N. C. (1984, February). Undergraduate research in small psychology departments. *Teaching of Psychology*, 11(1), 15–18. doi:10.1207/s15328023top1101_3
- Kierniesky, N. C. (2005, Spring). Undergraduate research in small psychology departments: Two decades later. *Teaching of Psychology*, 32(2), 84–90. doi:10.1207/s15328023top3202_1
- Kinkead, J. (2003, Spring). Learning through inquiry: An overview of undergraduate research. *New Directions for Teaching and Learning*, 93, 5–17. doi:10.1002/tl.85
- Kouzes, J. M., & Posner, B. Z. (2007). *The leadership challenge* (4th ed.). San Francisco, CA: Jossey-Bass.
- Krywulak, T., & Roberts, M. (2009, November). *Winning the “generational wars”*: *Making the most of generational differences and similarities in the workplace*. Retrieved from The Conference Board of Canada e-Library.
- Kwantlen Polytechnic University. (n.d.a). *About Kwantlen*. Retrieved from <http://www.kwantlen.ca/about.html>
- Kwantlen Polytechnic University. (n.d.b). *“Designing Kwantlen”: The KPU brand forum*. Retrieved from <http://www.kwantlen.ca/brand/forum.html#bn-forum-1-1-4120737674/7197/937370/show>
- Kwantlen Polytechnic University. (n.d.c). *Final mission and mandate*. Retrieved from <http://www.kwantlen.ca/mission/mission-mandate.html>

- Kwantlen Polytechnic University. (n.d.d). *Internal funding opportunities*. Retrieved from http://www.kwantlen.ca/research/Internal_Funding_Opportunities.html
- Kwantlen Polytechnic University. (n.d.e). *Kwantlen quick facts*. Retrieved from <http://www.kwantlen.ca/about/facts.html>
- Kwantlen Polytechnic University. (n.d.f). *Kwantlen vision*. Retrieved from <http://www.kwantlen.ca/vision.html>
- Kwantlen Polytechnic University. (n.d.g). *Kwantlen's timeline of success*. Retrieved from <http://www.kwantlen.ca/timeline.html>
- Kwantlen Polytechnic University. (n.d.h). *Research support: Library support for research and scholarship by faculty, staff, and administrative employees*. Retrieved from http://www.kwantlen.ca/__shared/assets/research13749.pdf
- Kwantlen Polytechnic University. (2005). *Policy G16: Employment/students*. Retrieved from <http://www.kwantlen.ca/policies/G-HumanRes/g16.pdf>
- Kwantlen Polytechnic University. (2006). *Collective agreement between the Kwantlen University College and the B.C. Government and Service Employees' Union (BCGEU) effective from July 1, 2006 to June 30, 2010*. Retrieved from http://www.kwantlen.ca/__shared/assets/bcgeu_collective_agreement_2006-20107640.pdf
- Kwantlen Polytechnic University. (2007). *Faculty collective agreement*. Retrieved from http://www.kwantlen.ca/__shared/assets/faculty_collective_agreement_2007-20107629.pdf
- Kwantlen Polytechnic University. (2009a). *Academic priorities 2010/2011*. Retrieved from http://www.kwantlen.ca/__shared/assets/Acad_pri14464.pdf
- Kwantlen Polytechnic University (2009b). *Guidelines for 2010/2011 minor research and scholarship grants program*. Retrieved from http://www.kwantlen.ca/__shared/assets/MRG_Guidelines14082.pdf
- Kwantlen University College. (2003). *Strategic research plan*. Retrieved from http://www.kwantlen.ca/__shared/assets/strategicresearchplanjuly3120032150.pdf
- Lancy, D. F. (2003, Spring). What one faculty member does to promote undergraduate research. *New Directions for Teaching and Learning*, 93, 87–92.
doi:10.1002/tl.91
- Landrum, R. E., & Nelson, L. R. (2002). The undergraduate research assistantship: An analysis of the benefits. *Teaching of Psychology*, 29(1), 15–19.
doi:10.1207/S15328023TOP2901_04

- Lanza, J. (1988, February). Whys and hows of undergraduate research. *BioScience*, 38(2), 110–112. Retrieved from the JSTOR Online database.
- Lei, S., & Chuang, N. (2009). Undergraduate research assistantship: A comparison of benefits and costs from faculty and students' perspectives. *Education*, 130(2), 232–240. Retrieved from the Academic Search Premier database.
- Lencioni, P. (2005). *Overcoming the five dysfunctions of a team: A field guide for leaders, managers, and facilitators*. San Francisco, CA: Jossey-Bass.
- Levesque, N. (2005). Partners in education: The role of the academic library. In F. McMahon, & T. Claes (Eds.), *Probing the boundaries of education* (pp. 51–56). Retrieved from <http://www.inter-disciplinary.net/publishing-files/idp/eBooks/ptbohe%201.6.pdf>
- Lewington, J. (2010, September 27). Canadian universities put volunteering on students' permanent records. *The Chronicle of Higher Education*. Retrieved from the Academic Search Premier database.
- Lomax, P. (2007). Action research. In A.R. J. Briggs & M. Coleman (Eds.), *Research methods in educational leadership and management* (2nd ed., pp. 156–172). Thousand Oaks, CA: Sage.
- Lopatto, D. (2004, Winter). Survey of undergraduate research experiences (SURE): First findings. *Cell Biology*, 3, 270–277. doi:10.1187/cbe.04-07-0045
- Lown, J. M. (1993). Involving undergraduate students in faculty research. *Advancing the Consumer Interest*, 5(2), 29–31.
- Mansell, I., Bennett, G., Northway, R., Mead, D., & Moseley, L. (2004). The learning curve: The advantages and disadvantages in the use of focus groups as a method of data collection. *Nurse Researcher*, 11(4), 79–88. Retrieved from the Academic Search Premier database.
- Marshak, R. J. (1993, Summer). Managing the metaphors of change. *Organizational Dynamics*, 1, 44–56. doi:10.1016/0090-2616(93)90081-B
- McGehee, T. (2001, Summer). The changing nature of work. *Leader to Leader*, 21, 45–55. Retrieved from the ABI/INFORM Global database.
- Mount Royal University. (n.d.). *Research* [Brochure]. Retrieved from <http://research.mtroyal.ca/>
- Munn-Venn, T. (2006, June). *Annual innovation report 2006: Lessons in public-private research collaboration: Improving interactions between individuals*. Retrieved from The Conference Board of Canada e-Library.

- National Survey of Student Engagement. (2010). *Major differences: Examining student engagement by field of study - annual results 2010*. Retrieved from http://nsse.iub.edu/NSSE_2010_Results/pdf/NSSE_2010_AnnualResults.pdf
- Nelson, B. (2002, Winter). The rewards of recognition. *Leader to Leader*, 23, 16–19. Retrieved from the ABI/INFORM Global database.
- Palys, T. & Atchison, C. (2008). *Research decisions: Quantitative and qualitative perspectives* (4th ed.). Toronto, Ontario, Canada: Nelson.
- Plante, T. G. (1998). A laboratory group model for engaging undergraduates in faculty research. *Teaching of Psychology*, 25(2), 128–130. doi:10.1207/s15328023top2502_13
- Polytechnic. (n.d.). In *Oxford English online dictionary*. Retrieved from <http://www.oed.com/view/Entry/147402?redirectedFrom=polytechnic#>
- Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, 52(2), 126–136. doi:10.1037/0022-0167.52.2.126
- Ribbins, P. (2007). Interviews in educational research: Conversations with a purpose. In A.R. J. Briggs & M. Coleman (Eds.), *Research methods in educational leadership and management*. (2nd ed., pp. 207–223). Thousand Oaks, CA: Sage.
- Royal Roads University. (2007). *Research ethics policy*. Retrieved from Research at RRU Web site: <http://www.royalroads.ca/research/ethical-reviews/ethics-policy.htm>
- Ryerson University. (n.d.). *Research and innovation*. Retrieved from <http://www.ryerson.ca/research/index.html>
- Senge, P. (2006). *The fifth discipline: The art & practice of the learning organization*. New York, NY: Currency/Doubleday.
- Short, R. R. (1998). *Learning in relationship: Foundation for personal and professional success*. Seattle, WA: Learning in Action Technologies.
- Siemens, L. (2009). It's a team if you use "reply all": An exploration of research teams in digital humanities environments. *Literary and Linguistic Computing*, 24(2), 225–233. doi:10.1093/lc/fqp009
- Siemens, L., Cunningham, R., Duff, W., & Warwick, C. (2009, May). *Training collaborative scholars: Creating space for learning through student involvement in research teams*. Paper presented at The Canadian Society for the Study of Higher Education (CSSHE) 8th annual conference at Carleton University in Ottawa, Canada. Retrieved from

<http://ocs.sfu.ca/fedcan/index.php/csshe2009/csshe2009/paper/viewDownloadInterstitial/1927/605>

- Silva, T., Aguiar, L., Leta, J., Santos, D., Cardoso, F., Cabral, L.,...Castro, H. (2004, Winter). Role of the undergraduate student research assistant in the new millennium. *Cell Biology Education*, 3, 235–240. doi:10.1187/cbe.04-02-0032
- Solomon, R. C., & Flores, F. (2001). *Building trust in business, politics, relationships and life*. London, England: Oxford University Press.
- Stamatoplos, A. (2009). The role of academic libraries in mentored undergraduate research: A model of engagement in the academic community. *College & Research Libraries*, 70(3), 235–249.
- Stanitski, C., Frankfort, F., & Muir, M. (1986, November-December). Science-active liberal arts colleges and the future of basic science. *Change*, 18(6), 52–53. doi:10.1080/00091383.1986.9939125
- Statistics Canada. (2010, May 10). Canadian internet use survey. *The Daily*. Retrieved from <http://www.statcan.gc.ca/daily-quotidien/100510/dq100510a-eng.htm>
- Stephens, R., & Thumma, J. (2005, August). Faculty-undergraduate collaboration in digital history at a public research university. *The History Teacher*, 38(4), 525–542. doi:10.2307/30036719
- Stringer, E. T. (2007). *Action research* (3rd ed.). Thousand Oaks, CA: Sage.
- Thompson Rivers University. (n.d.a). *Hiring research assistants*. Retrieved from http://www.tru.ca/finance/pro_manual/research_index/research_hirasst.html
- Thompson Rivers University. (n.d.b). *Hiring undergraduate research assistants*. Retrieved from http://www.tru.ca/rigs/faculty/faculty_forms.html#forms_undergraduate_research_assistant
- Turpin, T., Garrett-Jones, S., & Rankin, N. (1996). Bricoleurs and boundary riders: Managing basic research and innovation knowledge networks. *R & D Management*, 26(3), 267–282. doi:10.1111/j.1467-9310.1996.tb00961.x
- University Act, R.S.B.C. 1996, c. 468. [British Columbia]
- University of the Fraser Valley. (n.d.a). *Resources for students*. Retrieved from http://www.ufv.ca/Research/Resources_for_Students.htm
- University of the Fraser Valley. (n.d.b). *Student research assistant program 2010-2011: Application form*. Retrieved from www.ufv.ca/Assets/Research/Forms/studentra.doc

- University of the Fraser Valley. (n.d.c). *UFV research support*. Retrieved from http://www.ufv.ca/Research/Resources_for_Faculty/support.htm
- Vancouver Island University. (n.d.). *Frequently asked questions*. Retrieved from <http://www.viu.ca/research/ResourcesForFaculty/FrequentlyAskedQuestions.asp>
- Vancouver Island University. (2010, November 26). *VIU academic plan: Framing our future*. Retrieved from <http://www.viu.ca/integratedplanning/documents/AcademicPlanNovember262010FINAL.pdf>
- Wenger, E. (2006, June). *Communities of practice: A brief introduction*. Retrieved from http://www.ewenger.com/theory/communities_of_practice_intro.htm
- Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice*. Boston, MA: Harvard Business School Press.
- Wenger, E., & Snyder, W. (2000, Summer). Learning in communities. *Learning in the New Economy*. Retrieved from <http://www.linezine.com/1/features/ewwslc.htm>
- Wheatley, M. J. (2001, April-June). The real work of knowledge management. *IHRIM Journal*, 5(2), 29–33. Retrieved from <http://www.margaretwheatley.com/articles/management.html>
- Wheatley, M. J., & Kellner-Rogers, M. (1996, July/August). *The irresistible future of organizing*. Retrieved from <http://www.margaretwheatley.com/articles/irresistiblefuture.html>
- Wheatley, M. J., & Kellner-Rogers, M. (1998). Bringing life to organizational change. Retrieved from <http://margaretwheatley.com/articles/life.html>
- Wheeler, E. C., Hardie, T., Schell, K., & Plowfield, L. (2008, January/February). Symbiosis-undergraduate research mentoring and faculty scholarship in nursing. *Nursing Outlook*, 56, 9–15. doi:10.1016/j.outlook.2007.09.001
- Xu, Y., & Meyer, K. A. (2007). Factors explaining faculty technology use and productivity. *Internet and Higher Education*, 10(1), 41–52. doi:10.1016/j.iheduc.2006.10.004
- Yukl, G. (2010). *Leadership in organizations*. Upper Saddle River, NJ: Prentice Hall.

APPENDIX A: INFORMED CONSENT FOR RA FOCUS GROUP

My name is Ann McBurnie, and this research project is part of the requirement for a Master's degree in leadership at Royal Roads University. My credentials with Royal Roads University can be established by telephoning Wendy Rowe, Acting Director, School of Leadership Studies at [telephone number] or by email at [email address].

This document constitutes an agreement to participate in my research project, the objective of which is to examine organizational practices impacting research assistants (RAs) at Kwantlen Polytechnic University (Kwantlen), identifying potential issues and discovering the optimal way to address your concerns, increase your sense of presence, and maximize your contributions, enabling Kwantlen to move forward as an institution that encourages faculty and student research.

The research will consist of a focus group of current and former Kwantlen research assistants and is foreseen to last up to two hours, including lunch. The foreseen questions will refer to your experiences as a research assistant at Kwantlen, and any thoughts you might have to improve research assistants' administrative, training and environmental conditions. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership degree I will also be sharing my research findings with Kwantlen Polytechnic University. I may present my findings and recommendations in a workshop or conference, a newsletter, journal article, or a book.

Information will be recorded in hand-written format 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. Data will be retained for one year after acceptance of the project by Royal Roads University, and then shredded.

A copy of the final report will be published. A copy will be housed at Royal Roads University and in the National Archives of Canada and available online through UMI/Proquest and the Theses Canada portal, and will be publicly accessible. Access and distribution will be unrestricted. All participants will receive an electronic copy of the final report.

I am employed as Operations Manager at Kwantlen Polytechnic University, Coast Capital Library. I am conducting the research, however, as a fellow learner and appreciate your voluntary participation.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

By signing this letter, you give free and informed consent to participate in this project, and affirm you are 19 years of age or older.

Name: (Please Print): _____

Signed: _____

Date: _____

APPENDIX B: INFORMED CONSENT FOR FACULTY FOCUS GROUP

My name is Ann McBurnie, and this research project is part of the requirement for a Master's degree in leadership at Royal Roads University. My credentials with Royal Roads University can be established by telephoning Wendy Rowe, Acting Director, School of Leadership Studies at [telephone number] or by email at [email address]

This document constitutes an agreement to participate in my research project, the objective of which to examine organizational practices impacting research assistants (RAs) at Kwantlen Polytechnic University (Kwantlen), identifying possible issues and discovering the optimal way to address any concerns, increase their sense of presence, and maximize their contributions, enabling Kwantlen to move forward as an institution that encourages faculty and student research.

The research will consist of a focus group with researching Kwantlen faculty who are currently or have recently used research assistants and is foreseen to last approximately two hours. The foreseen questions will refer to your experiences using a research assistant at Kwantlen, and any thoughts you might have to improve research assistants' administrative, training and environmental conditions. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master's degree in Leadership I will also be sharing my research findings with Kwantlen Polytechnic University. I may present my findings and recommendations in a workshop or conference, a newsletter, journal article, or a book.

Information will be recorded in hand-written format 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. Data will be retained for one year after acceptance of the project by Royal Roads University, and then shredded.

A copy of the final report will be published. A copy will be housed at Royal Roads University, and in the National Archives of Canada and available online through UMI/Proquest and the Theses Canada portal, and will be publicly accessible. Access and distribution will be unrestricted. All participants will receive an electronic copy of the final report.

I am employed as Operations Manager at Kwantlen Polytechnic University, Coast Capital Library. I am conducting the research, however, as a fellow learner and appreciate your voluntary participation.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

By signing this letter, you give free and informed consent to participate in this project.

Name: (Please Print): _____

Signed: _____

Date: _____

APPENDIX C: INFORMED CONSENT FOR FACULTY/ADMINISTRATOR**INTERVIEW**

My name is Ann McBurnie, and this research project is part of the requirement for a Masters degree in leadership at Royal Roads University. My credentials with Royal Roads University can be established by telephoning Wendy Rowe, Acting Director, School of Leadership Studies at [telephone number] or by email at [email address].

This document constitutes an agreement to participate in my research project, the objective of which to examine organizational practices impacting research assistants (RAs) at Kwantlen Polytechnic University (Kwantlen), identifying possible issues and discovering the optimal way to address any concerns, increase their sense of presence, and maximize their contributions, enabling Kwantlen to move forward as an institution that encourages faculty and student research.

The research will consist of an interview with researching Kwantlen faculty who are currently or have recently used research assistants (or an administrator who has worked with researchers and RAs) and is foreseen to last approximately two hours. The foreseen questions will refer to your experiences with a research assistant at Kwantlen, and any thoughts you might have to improve research assistants' administrative, training and environmental conditions. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master's degree in Leadership I will also be sharing my research findings with Kwantlen Polytechnic University. I may present my findings and recommendations in a workshop or conference, a newsletter, journal article, or a book.

Information will be recorded in hand-written format 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. Data will be retained for one year after acceptance of the project by Royal Roads University, and then shredded.

A copy of the final report will be published. A copy will be housed at Royal Roads University, and in the National Archives of Canada and available online through UMI/Proquest and the Theses Canada portal, and will be publicly accessible. Access and

distribution will be unrestricted. All participants will receive an electronic copy of the final report.

I am employed as Operations Manager at Kwantlen Polytechnic University, Coast Capital Library. I am conducting the research, however, as a fellow learner and appreciate your voluntary participation.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

By signing this letter, you give free and informed consent to participate in this project.

Name: (Please Print): _____

Signed: _____

Date: _____

APPENDIX D: QUESTIONS FOR RA FOCUS GROUP

RA Experiences at Kwantlen: Your Story!

Characters

- Researcher and participants introduce themselves to the group

Introduction

- OLP and research process
- Consent forms gathered
- Confidentiality outside of focus group
- Your Best Meeting Ever defined!
- Seek permission to paraphrase some of verbal data
- Process of sign-off for flip chart data
- Appreciative Inquiry and format of focus group questions

Setting: Valuing what is (Discovery)

- Tell me how you came to be an RA
- Please describe your experiences in preparing and training for your project
- Tell me about a time when you received coaching or mentoring from the faculty supervisor during your project. What impact did this coaching or mentoring have on you as an RA?
- Has being an RA led to a richer undergraduate learning experience for you? How and why?
- Has being an RA encouraged you to further your education?

The Plot: What could be? (Dream)

- Upon reflection, what type of additional preparation or training from Kwantlen would have been helpful?
- If a half-day Research Assistant orientation course was offered, would you have participated simply to learn about becoming an RA, even before you were hired? What should be the core components of such a half-day session?
- What types of feedback would be important for your researching faculty after the project is complete and what format is that feedback best given in?

Point of View: What should be? (Design)

- How do we ensure that RAs are valued within the Kwantlen learning community?
- What would be ideal working conditions, university supports and human resource remuneration for undergraduate RAs?
- What safeguards (e.g. policies, procedures) would support future RA practice within Kwantlen?
- Upon reflection, could you have done anything differently in your RA experience?

Happily Ever After: What are the Possibilities? (Destiny)

- Think about what an ideal RA experience would be at Kwantlen and describe it
- How do we get there? What needs to happen?

Conclusion

- Have we missed anything?
- Thank you for your participation and insights
- Would you be interested in gathering a second time to work together with me and analyze the data being collected today?
- Sign-off on flip-chart info

APPENDIX E: QUESTIONS FOR RESEARCHERS

RAs at Kwantlen: Your Story!

Characters

- Researcher and participants introduce themselves to the group

Introduction

- OLP and research process
- Consent forms gathered
- Confidentiality outside of focus group
- Your Best Meeting Ever defined!
- Seek permission to paraphrase some of verbal data
- Process of sign-off for flip chart data
- Appreciative Inquiry and format of focus group questions

Setting: Valuing what is (Discovery)

- How and why did you hire an RA?
- What benefits have you experienced by employing an RA?
- What was the necessary or desired skill set for your project? Did your RA come into the position with those skills or did you train them?
- What preparation, including training did you give your RA for the work to be accomplished? Did your RA use Kwantlen resources such as the library to complete the project?
- Do you receive feedback from the RAs after their project is complete? If so, what format is that feedback in?
- Tell me about a time when you provided coaching or mentoring to your RA during your project.
- Has employing an RA led to a richer researching experience for you?

The Plot: What could be? (Dream)

- How would you recommend addressing any challenges you have experienced in employing an RA?

- Upon reflection, what type of additional preparation or training from Kwantlen would have been helpful?
- Do you think a half-day orientation course should be offered for RAs? What should be the core components of such a half-day session?

Point of View: What should be? (Design)

- How do we ensure that RAs are valued within the Kwantlen learning community?
- What would be ideal working conditions, university supports and human resource remuneration for undergraduate RAs?
- Describe any organizational safeguards such as policies and procedures that would support RA practice within Kwantlen.
- What would be an ideal formal feedback mechanism for the project?
- What would be an ideal formal feedback mechanism for the researcher and RA relationship?

Happily Ever After: What are the Possibilities? (Destiny)

- Where and how would you like to see RAs being used for research within Kwantlen in five years' time?
- How do we get there? What needs to happen?

Conclusion

- Have we missed anything?
- Thank you for your participation and insights
- Sign-off of flip-chart info