

EMPOWERMENT IN ONLINE PRACTICE:
EXPLORING THE POTENTIAL FOR EMPOWERING OUTCOMES AND
PROCESSES IN AN E-MENTORING PROGRAM FOR ABORIGINAL YOUTH

By

ANETTE KINLEY

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ABSTRACT

Motivation: Despite being Canada's youngest and fastest growing population, Aboriginal Canadians graduate from university at one-third the rate of non-Aboriginals. Aboriginal eMentoring BC (eMentoring) is an e-mentoring pilot program that seeks to increase equality of educational opportunity for Aboriginal youth in grades 6 through 12 by connecting them with university student mentors. Positive mentoring relationships are expected to empower mentees to recognize and reach their potential.

Objectives: This paper seeks to understand whether the eMentoring program model – in terms of its community-university partnership structure, online learning space (Personal Quest), and mentor-mentee relationships – facilitates mentee empowerment.

Methods: The research questions will be answered using eMentoring's mixed-method evaluation data, including: staff and partner interviews, mentor surveys, program monitoring statistics, and conversation transcripts.

Results: Mentees who spend over 300 minutes on the Quest are more likely to experience empowering relationships. Improvements to the Quest in 2013/14 lead to a four-fold increase in mentee activity and more consistent monthly participation. The strength of the relationships between program staff and partners also influence mentee activity.

Conclusions: Notwithstanding the research limitations, eMentoring shows strong potential for empowering mentoring relationships and outcomes. The program's key strength was its reflexivity and responsiveness to community context and changing circumstances.

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Introduction

This research project seeks to understand how the concept of empowerment translates into practice in the context of Aboriginal eMentoring BC (eMentoring), an online mentorship program of which I have been a member of the research team since Spring 2012. eMentoring is a community-university partnership coordinated by a University of British Columbia (UBC) research team that seeks to address the issue of *inequality of educational opportunity* for Aboriginal youth. More specifically, the program aims to increase Aboriginal high school completion and post-secondary transition rates in its partner School Districts and First Nations communities by giving youth opportunities to connect with, and learn from, post-secondary students from across BC. The mentoring literature suggests that a positive relationship with a mentor, founded on mutual trust and respect, creates a sense of safety in sharing personal experience and ideas, and engaging in critical and constructive thinking. This type of dialogue fosters transformative learning and empowers youth to recognize their academic potential, set goals, and take actions to achieve them.

The empowerment and transformative learning literature also indicates that the underlying processes, structures and conditions of the program must be consistent with empowerment principles in order to affect truly empowering outcomes. To this end, this research project seeks to understand the degree to which eMentoring demonstrates not only empowering outcomes, but also empowering processes and conditions. This paper aims to answer ten research questions that point to the empowerment potential of eMentoring's organizational structure and partnership dynamics, learning space, and mentor-mentee relationships; as well as the developmental and instrumental outcomes for mentees. In doing so, the analysis will contribute to our understanding of the efficacy and effective development of online mentorship programs for disadvantaged youth. It also improves our understanding of the constraints and realistic outputs of community-based online mentoring programs, and identifies areas for program improvement and best practices for online mentoring.

This paper begins with a description of the eMentoring program model and the contemporary and historical context in which it was developed. This will be followed by a brief review of the literature for each of the four sets of research questions, a description of the research methods, and a review of the results. The paper will conclude with a summative discussion, a concise conclusion, and recommendations.

Aboriginal eMentoring BC

Aboriginal eMentoring BC (eMentoring) is an online mentoring (e-mentoring) pilot program that seeks to contribute to equality of educational opportunity for Aboriginal youth – a group at the centre of

what Redwing Saunders and Hill (2007) describe as a “pandemic phenomenon related to Native education and social mobility” (p.1018). While the language of a “pandemic” may seem dramatic, it is appropriate, given that Aboriginals are the youngest and fastest growing population in Canada (nearly 48% under the age of 24 in 2006); this is an issue with significant long-term social and economic consequences for not only Aboriginal communities, but also Canada as a whole (44:p.1018).

A major part of this pandemic is the overall low academic attainment among Aboriginal young adults. In 2006, 40.3% of youth aged 20-24 did not have a high school diploma, compared to 12.5% of their non-Aboriginal peers (14:p.39). The overall representation of Aboriginal students in advanced education, while on the rise, remains limited (43). In 2006, 7.7% of Aboriginal people aged 25 to 64 had completed a degree program, compared to 23.4% of non-Aboriginals (14:p.46). Research indicates that Aboriginal high school graduates often lack the math and science pre-requisites for post-secondary admission, in addition to other essential skills like studying, time management, and computer literacy (11:p.7). Aboriginal graduates who do go on to post-secondary often become “stuck at the door,” with just one-in-five completing a program within 6 years of admission (11:p.14). Aboriginal youth living in rural and remote communities face higher barriers to graduation and post-secondary, including: poor access and underfunding of on-reserve and remote schools; distance from educational institutions; and, the cost and stress of moving (4,11).

The factors that created this situation are complex and intertwined, including: silences, misrecognition and streaming in the mainstream school system; lack of First Nations self-determination over education; racism and discrimination; economic inequalities; and, geographic barriers (6,11,13,14, 43,44). All of these factors are undergirded by generations of repressive colonial policies and practices that have created collective “conditions of physical, psychological, economic and political disadvantage” for Canada’s Aboriginal peoples (43:p.21). The Residential School system, in particular, left a devastating legacy of damage to “culture, language, family ties and community networks” (43:p.21, 28,52). Some of the ongoing repercussions for the current generation of Aboriginal youth include: cultural disengagement and conflict; social alienation; poor self-concept; lack of employment preparation; damaged family and community structures; and, a deep-seated distrust and disengagement from formal education (11,14,28,43,48,52). Shilling (2002) contends that Indigenous communities have become embedded in a “high level of collective stress” that creates “constant pressures that distract and dampen the desire to learn” (p.154).

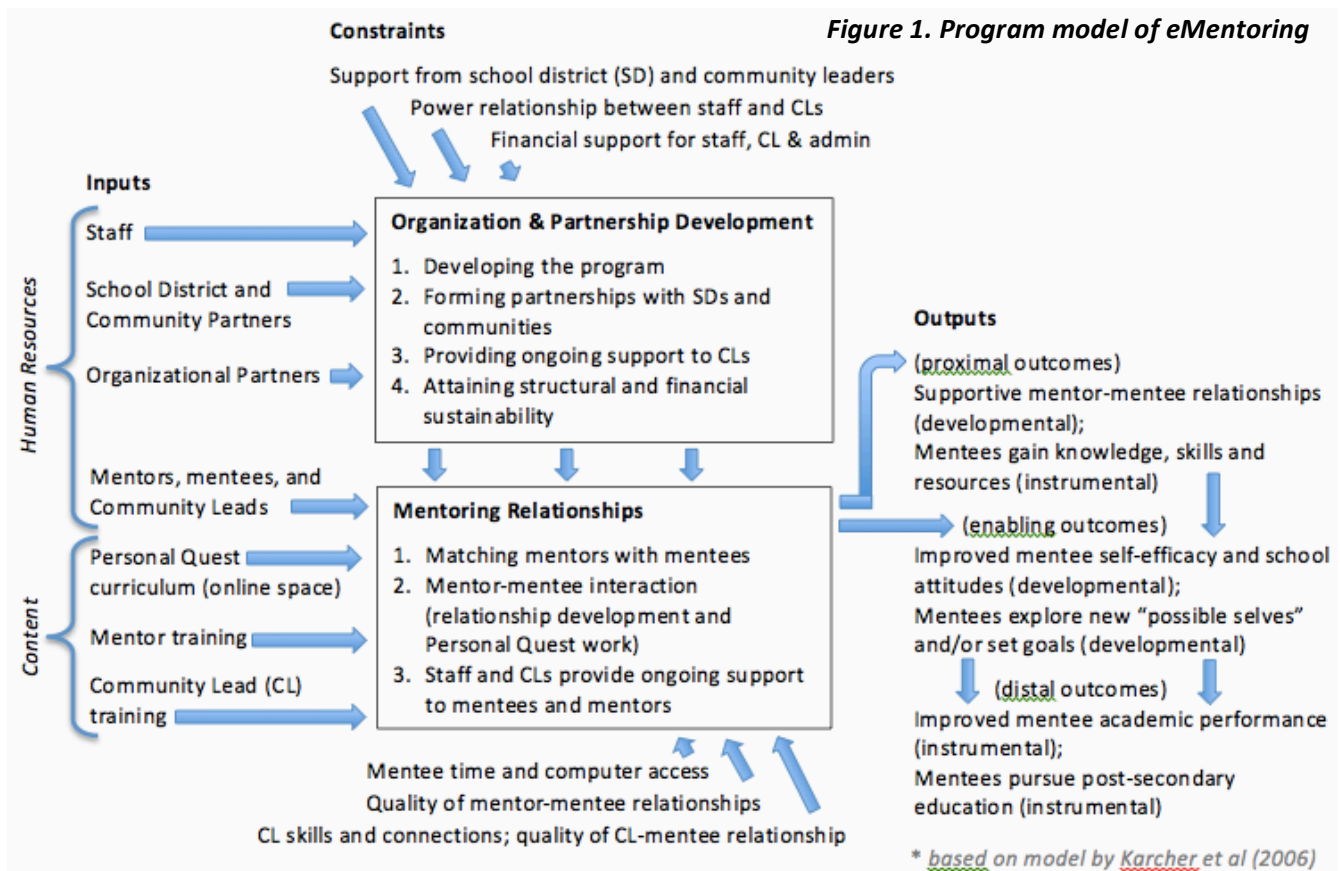
Through the lens of social capital, the effect of the Residential Schools can be described as the destruction of the support, connections and resources people derive from their relationship networks.

This includes not only access to positive adult or peer role models, mentors or allies, but also intangible social resources like values, knowledge, expectations, language, behaviours and relational competencies that allow people to negotiate the sociocultural worlds they encounter (20,38,51). For members of oppressed groups, low social capital also stems from the incongruities between their own cultural discourses and the typically white, middle-class, and male-centric discourses within social institutions (51). For this reason, positive mentoring relationships can offer significant benefits for disadvantaged youth; online programs have been found to be particularly effective for at-risk youth (20, 46). As a result, the eMentoring program seems well positioned to realize positive outcomes for Aboriginal youth.

Program Model

eMentoring aims to encourage Aboriginal youth to complete high school and transition into post-secondary programs through the formation of positive mentoring relationships (1,25). Its vision is that developing relationships with near-peer mentors they otherwise would not have met will increase youths' social capital by giving them access to new informational, instrumental and emotional resources (38,51). This will help to level the playing field for Aboriginal youth in a way that empowers them to make choices that will shape their future social and economic status (3:para.47).

Figure 1 outlines a program model that defines two core activities for eMentoring: 1) organization



and partnership development; and, 2) mentoring relationships. Both of these activities are reliant upon human resources and high quality content. The mentoring relationships are expected to result in developmental and instrumental outcomes on an extended timeline: proximal (immediate) outcomes of increasing knowledge and skills, and access to support; enabling (mid-term) outcomes of improved self-efficacy and goal setting; and, distal (long-term) outcomes improved academic performance and attainment – both instrumental and developmental. The program activities are also shaped by external constraints that will be explored throughout this paper.

This research paper is structured around four elements of the program model that have particular connections to its empowerment potential: the organizational structure and partnerships; the learning space; the mentoring relationships; and, the outcomes.

Organizational Structure and Partnerships. eMentoring was funded in 2009 through a four-year research grant from the Canadian Institutes of Health Research (CIHR). From its very beginnings, the program has been a collaborative endeavour, accomplished via relationships with community and institutional partners. eMentoring's staff and Principal Investigator team worked to forge partnerships with six First Nations communities (referred to as communities) and three School Districts (Districts) over the course of program development and implementation. As the sites of on-the-ground implementation, these partnerships are the foundation of the eMentoring program. Community Leads (Leads) are hired locally from most of the sites to promote the program, and to recruit and support mentees. The Leads are encouraged to use approaches they believe will be most effective in each community or school context. UBC staff provides the Leads with recruitment materials, training and ongoing support. In some smaller communities, eMentoring staff performs some components of the Lead function with the support of a local contact (such as a teacher).

eMentoring's institutional partners, and the co-investigator team, include representatives of First Nations, academic, governmental and health organizations. These partners served an advisory role in the initial development and implementation of the program, as well as a facilitating role in mentor recruitment and program promotion. They have also been critical in providing guidance to adjustments to the program, and identifying and pursuing prospects for financial sustainability.

A small team (ranging from two to five full- and part-time staff) coordinated the research proposal, program development and implementation, research program implementation, and daily administration. From 2009 through the end of 2013, eMentoring was housed within the eHealth Strategy Office, a research unit within UBC's Faculty of Medicine, of which the Principal Investigator, Dr. Jarvis-Selinger, was Associate Director until July 2012. eMentoring was one of a suite of research

projects divided among eHealth staff. Since early 2014, eMentoring has operated as an independent project under the sole supervision of Dr. Jarvis-Selinger. Unfortunately, eMentoring was unable to secure core funding to sustain the program beyond the CIHR grant period; the program is currently on hold until further funding is secured.

Mentoring Relationships. eMentoring is based on a one-to-one cross-age peer mentoring model, a standard in youth mentoring programs aimed at promoting psychosocial development among disadvantaged youth (26). The program pairs Aboriginal youth in Grades 6 through 12 (mentees) with near peer mentors in university programs across British Columbia (BC). Mentees are primarily recruited via presentations to Aboriginal students in schools or community venues, or via recommendations from teachers or Aboriginal support staff (referred to collectively as “teacher-advocates”). Recruitment is often focused on students in grades 9 and 10 (or younger), who are at a critical point before core courses required for high school graduation and post-secondary admission are offered; this age group is also at the highest risk of drop out (11).

Most of the program’s mentors are in health science programs, but many are completing degrees in the social sciences, humanities or education. This is a reflection of the program’s official aim to encourage mentees to pursue careers in health – a field in which Aboriginal people are underrepresented, particularly in higher-paid professional roles (12). Mentor admission was expanded to increase the program’s appeal to mentees with a variety of interests. The majority of mentors study at UBC, but some are from other institutions, such as the University of Victoria and Simon Fraser University. Around three-quarters of mentors are non-Aboriginal, due to the small pool of Aboriginal students in post-secondary; the Mentor Coordinator works on-campus Indigenous groups to reach as many potential Aboriginal mentors as possible.

Once mentors and mentees are accepted to the program and registered on the online platform, they are matched based on personal, academic and career interests, as well as gender, mentee age (according to mentor experience), and urban-rural background. Pairs are asked to commit to working together for one school year, and have the option to continue their relationship into the next year.

Learning Space. eMentoring’s semi-structured online curriculum, known as the Personal Quest (or “the Quest”), is housed on icouldbe.org – the website of an American non-profit, e-mentoring program for inner city youth. The eMentoring team worked with curriculum designers, and [icouldbe](http://icouldbe.org)’s administration and web developer, to customize the [icouldbe](http://icouldbe.org) platform and content to meet the needs of the program. The first iteration of the Personal Quest (the “original Quest”) was launched in November 2011, and consisted of nine units adapted from [icouldbe](http://icouldbe.org)’s resources related to career and

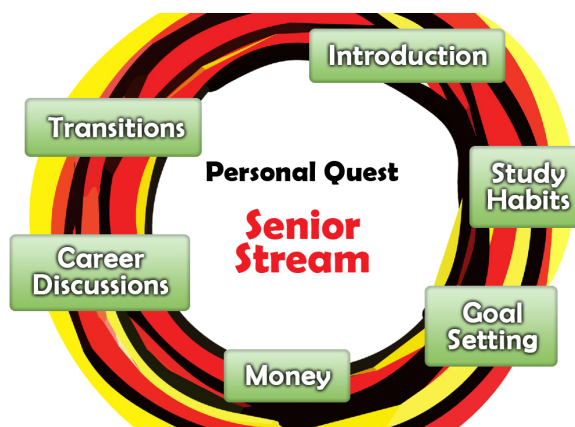
educational exploration, goal setting, budgeting, and communication (23). The primary focus of this adaptation was to incorporate Indigenous content and motifs to help the mentees “see themselves within the curriculum” (44:1032, 11).

The new Personal Quest, launched in September 2013, is divided into two “streams” of six units each, and features more interactive and media-rich activities – including games, creative online activities, and a series of custom videos featuring Aboriginal role models from across BC. The Junior stream is geared towards mentees in grades 6 through 8, and focuses on identifying personal strengths, goal setting and improving skills (Figure 2). The Senior stream, designed for mentees in grades 9 through 12, deals with more in-depth goal setting, and preparation for post-secondary education and life after high school (Figure 3). This dual-stream structure is consistent with youth development research, which shows that the rapid social, emotional and psychological development throughout adolescence results in very different learning needs (18). The Quest also touches on many of the elements that Hrabowski and Maton (1995) identify as critical for minority student success in science programs, including: skills related to academic preparation, studying, and seeking and utilizing resources; advice on course selection, extracurricular activities and time management; motivation, support and high expectations from role models; and, academic and social integration in the post-secondary environment.

Figure 2. Junior Personal Quest



Figure 3. Senior Personal Quest



Mentoring Relationships & Outcomes. The literature indicates that developmental and instrumental learning activities reinforce each other in fostering positive outcomes. The developmental activities in the Quest aim to promote social, emotional and academic development, and foster supportive mentor-mentee relationships (26,46). This type of supportive relationship can contribute to increased self-esteem, connectedness and confidence in risk-taking, which, in turn, supports long-term goal- or skill-achievements (26,50). The instrumental activities, on the other hand, focus on exposing mentees to knowledge, skills and ideas (26). This type of learning can lead to increased confidence, self-efficacy, and

social connections, which in turn support long-term psychosocial development (8,26,50). This instrumental-developmental feedback loop represents a form of transformative learning.

The literature generally represents transformative education as a deliberate and iterative process of gathering knowledge and skills, and reflecting on new ideas and underlying assumptions about the world, and one's relationship to it and others. Ideally, these activities increase the inclusiveness of beliefs, which has the potential to spark a transformation in perspective, and possibly a new path of action (2,31,32,34,37,55). In the case of eMentoring, empowerment is achieved through "learn[ing] to see a closer correspondence between their goals and a sense of how to achieve them" (56:p.583).

The concept of *dialogue*, a form of open conversation founded on logic and critical thinking, is often cited as the mechanism for transformational learning among adults (21,33,34). However, Thayer-Bacon's (1993) parallel concept of "real talk" seems better suited to transformative learning for youth. Real talk is a process of active listening, sharing, reciprocity and cooperation with the goal of finding solutions (34:p.14, 5,7). In contrast to dialogue, real talk is founded on caring and constructive thinking – an alternative to logical reasoning that emphasizes approaching others with a spirit of trust, receptivity and respect (54). The lack of judgment and domination in true real talk helps to create a sense of safety that encourages learners to share their ideas and experiences openly, and contribute to the development of new knowledge and understanding (5,7). This type of safe environment is particularly important for working with marginalized youth.

At the most basic level, however, all learning emerges from the articulation of ideas or "experience to ourselves or to others" (34:p.5). In other words, learning is founded on storytelling. Stories shape our perspectives on our world and our place within it. Shared narratives give order and meaning to our experiences, telling us "not only who we are but who we have been ... who we can be," and how we can make change in our lives (42:p.796, 41). The power of narrative makes storytelling critical to the process of empowerment and transformative learning. "The ability to tell one's story, and to have access to and influence over other collective stories, is a powerful resource" and an important way for marginalized people to give voice to their experience and to heal by incorporating elements of other stories into their own (42:p.802, 41,48). Storytelling also empowers people by exposing them to diverse perspectives, thereby enhancing their relational and critical thinking skills (54).

Literature and Research Questions

eMentoring is described as a program that enables the empowerment of Aboriginal youth – but is it empowering in practice? It is common for empowerment to be envisioned as specific outcomes; however, true empowerment also utilizes processes and methods that are aligned with

both the explicit content and the context of the intervention (2,29,32,39). The aim of this research project is to explore the extent to which the eMentoring program exemplifies an empowering process with empowering outcomes.

Three interdependent conditions that support personal empowerment within mentoring relationships emerged from the literature: the organizational and partnership structure; the quality of the mentor-mentee relationship; and, the characteristics of the learning space. These three conditions, in addition to the outcomes of the program, are the themes around which I will be exploring the empowerment potential of eMentoring.

A. Organizational Structure and Partnerships

The Community Development (CD) literature indicates that the structure and partnership dynamics of organizations that offer mentorship opportunities have an indirect impact on the learning experience. eMentoring is an example of a value-based partnership, in which ‘expert’ professionals work with members of marginalized groups and other community stakeholders to achieve key community values, such as caring, empowerment and self-determination (36). The literature suggests that partnerships are more conducive to empowering processes when: ownership is equally shared among partners; the work contributes to capacity building at the individual and community levels; and, the members are responsive to challenges.

Equalizing the balance of power among expert professionals and community members requires a conscious effort to work with communities as equal partners (39:p.570, 36,40,56). This includes having an “opportunity role structure” that allows community partners to participate meaningfully in all stages of the process, and to define and enact their own solutions (29:p.8, 30,31,39,56). Enabling partners to take on new roles and responsibilities, and thereby develop their skills and self-confidence, has the long-term impact of increasing communities’ internal capacity and reducing reliance on external professionals (29,30,56). Craig (2002) posits that the balance of power in partnerships is reflected in the belief among partners that participation is representative, consensual, effective and legitimate.

Finally, Maton (2008) argues that partnerships that regularly engage in “setting maintenance and change” are most supportive of empowerment (p.13). This includes maintaining effective operations, as well as learning from and responding to internal and external changes and challenges (29). Being responsive requires partners to have the flexibility to evolve program and partnership structures and practices based on community experience, changing circumstances and resources, and a vision for long-term sustainability and legitimacy (29,30,39). The most successful value-based partnerships are characterized by strong relationships based on sustained commitment, mutual trust, openness, personal

connections and recognition of strengths (9,36). Partnership agreements or principles are important tools for strengthening relationships, as they help to lay the groundwork for partners' respective roles and responsibilities (36).

The following three research questions aim to ascertain whether eMentoring's organizational structure and partnership dynamics are consistent with empowerment principles.

- a-i. Is control and ownership of eMentoring effectively shared among the UBC team and community partners?
- a-ii. Is eMentoring contributing to capacity building in the School Districts and First Nations communities?
- a-iii. Is eMentoring responsive to internal and external challenges?

B. Learning Space

The transformative learning literature refers to learning spaces as *liminal*, a term that captures the state of transition and change that students experience – from not knowing to knowing, from indecision to decision, from idea to action (32). The spaces within which mentors and mentees interact shape the degree to which empowering processes and outcomes can be achieved. Arguably, the liminal space has a compound impact on the learning experience and relationship development in e-mentoring programs, because the majority of mentor-mentee interactions occur in the virtual environment.

The structure of a learning space encompasses its design and duration; transformative learning is dependent upon functional tools and sufficient time for learners to reflect on the ideas they encounter. Online learning spaces can offer many advantages, such as: greater convenience and fewer geographic and time barriers to access; more efficient exchange of information; new forms of self-expression; and, more time for reflection and writing responses (9,46). The relative anonymity of online interaction can also equalize traditional power dynamics, making some people feel "safer" in sharing their ideas and experiences (9:p.220, 19,46). However, the loss of physical cues and personalization in virtual interaction can exacerbate some of the obstacles experienced in face-to-face mentoring relationships, like miscommunication and inconsistent participation (46,50).

The content (or curriculum) is also critical to the learning experience, in that it fuels and guides discussion and reflection (20,32,41). The most effective content is engaging and meaningful; is innovative and of high quality; and, encourages active participation and reflection (29). Curricula also implicitly or explicitly communicate an underlying belief system, or philosophy of human and social development (30,32). It is critical to empowerment processes that learning spaces reflect a

philosophy that inspires growth and goal attainment; emphasizes strengths over weaknesses; and, perceives individuals as part of a larger community (29,30,33,49,50).

The following two research questions seek to understand whether eMentoring's learning space is conducive to personal empowerment through transformative learning.

- b-i. Is the content and structure of the Personal Quest conducive to real talk between mentors and mentees?
- b-ii. Does the Personal Quest reflect a belief system that inspires growth, emphasizes strengths and focuses beyond the self?

C. Mentor-Mentee Relationships

Positive relationships are central to the mentoring process, and critical to the achievement of “social-emotional, cognitive, and identity development” (45:p.696). A number of interrelated conditions for successful mentoring relationships emerged from the empowerment and mentoring literature – the primary conditions include: mutuality; regular interaction; and, positive relationship dynamics.

Mutuality is a concept used in relational theory to capture mutual feelings of respect, support, empathy, trust and safety within a relationship (8,9,21,34,45,46). In order to attain mutuality, both participants need to approach the relationship in a spirit of non-judgmental acceptance and willingness to share their histories, experiences, ideas and needs – parallels to the conditions supporting real talk (8, 33,45). The literature suggests that mutuality can be harder to achieve in online learning spaces. The lack of in-person interaction can increase the potential for disruptive interactions (including misunderstandings, delays, and abrupt, defensive or uninformative messages) and weaken reinforcement cues that remind people to maintain their relationships (9,46,50). Online environments tend to be “emotionally lean,” making it more difficult to develop a sense of intimacy and mutual trust (46). In addition, the relative ease of creating virtual matches tends to foster “weak ties,” or a weaker initial sense of commitment, between participants (46:p.214, 9).

Regular and frequent interaction is critical to relationship development, as it allows participants time to develop the familiarity and rapport that can evolve into mutuality (9,26). Consistent contact in e-mentoring programs contributes significantly to outcomes and participant satisfaction, as it helps both mentees and mentors to feel “present” in the virtual relationship (19,26,49,50). Irregular contact can create what Shpigelman and Gill (2013) term a “Black Hole Phenomenon,” in which delays cause feelings of anxiety or anger, and may ultimately lead to the end of the relationship (p.471). Negotiating an adequate level of interaction requires the participants in each pair to commit time to developing the relationship, and to communicate their availability and expectations (9). Mentor commitment is

particularly critical during the initial year of relationship building, when youth may be reluctant (45). While much of the onus is on mentors, it is also essential that mentees actively participate and express their needs and expectations (46). Regardless of how committed, positive and encouraging a mentor is, the relationship will fail if a mentee does not contribute.

Finally, positive relationship dynamics – which encompass an equal balance of power, informal communication style and deep-level similarities – are central to empowering learning experiences. The power dynamics within learning relationships can be equalized by treating teachers and learners as partners in the process (2,21,33,54). In accordance with this pedagogical philosophy, the role of teachers is to foster dialogue and critical thought while: a) encouraging self-sufficiency; b) fostering reflexive decision-making and problem-solving skills; c) being supportive and bolstering learners' self-concepts; d) using experiential and participative learning methods; and, e) avoiding prescribed courses of action (21,33,34). Achieving a balance of power in mentoring relationships may require trading-off some program goals in favour of mentees' needs (49).

Relationships are also more likely to succeed if mentors and mentees establish an informal and personal communication style. In an online context, this can include using emoticons or chat shorthand, using humor, and attaching files, pictures and links (49). Successful mentors create “a friendly and non-threatening environment” by: being attentive to mentees' abilities, needs and desires; responding directly to questions and comments; asking specific questions; and, personalizing their responses (46:p.219, 45,49). In contrast, unsuccessful mentors often use a formal and impersonal style that discourages open and meaningful two-way communication (49).

The literature suggests that degree of similarity between mentors and mentees has some bearing upon mentoring relationship dynamics. Most mentoring programs use demographic characteristics as part of their criteria for matching mentees with mentors. However, research has found that demographic similarities do not have a statistically significant impact on mentoring outcomes – in part because identity markers (like race and ethnicity) do not hold the same meaning or value in all peoples' lives (8,18,19,20). Deep-level similarities (like personalities, values, attitudes, goals, interests and culture) are more likely to have a significant impact on mentor-mentee compatibility and the development of trust and mutuality (8,18,19,35,49). This is particularly true in an online environment, where a lack of visual cues can shift the focus of the relationship more quickly to thoughts, feelings and other deep-level characteristics (19).

The following three questions aim to ascertain whether the mentor-mentee relationships formed within the eMentoring program were conducive to mentee empowerment.

- c-i. Have mentor-mentee pairs achieved mutuality?
- c-ii. How actively do mentors and mentees participate in the program?
- c-iii. Are the relationship dynamics in mentor-mentee pairs conducive to empowerment?

D. Outcomes

A positive mentoring relationship can be seen as a “zone of proximal development” – a space between independent problem-solving and direct adult guidance, in which youth can use their skills creatively to accomplish more than they could on their own (45:p.694). The eMentoring program operates in this same spirit of empowering youth to define their paths. The proximal development fostered by the eMentoring program aligns directly with McWhinney and Markos’ (2002) productive-instrumental and personal (developmental) goals for transformative paths.

eMentoring aligns with productive-instrumental goals in its focus on the development of knowledge and skills (problem-solving, help-seeking and networking), resources, and social capital needed to pursue a career path (32,51). Positive mentoring relationships can contribute to cognitive skill development through exposure to “new opportunities for learning, intellectual challenge and guidance” (45:p.694). For mentees in unstable family or community situations, a reliable and responsive mentor can provide a sense of security that enables them to explore new ideas and interests (45). The act of working through the Personal Quest activities with a supportive near-peer mentor has the potential to help mentees recognize and leverage their skills – to build a sense of mastery and influence that will give them confidence to set and pursue goals for their career and beyond (40:p.110, 29,56).

eMentoring also aligns with personal (developmental) goals in its aim to foster self-efficacy and confidence in Aboriginal youth through relationships with supportive near-peer mentors, and a curriculum that encourages them to recognize their strengths. Mentors can enhance their mentees’ emotional well-being and social relationships by acting as a companion and sounding board (45:p.692). Attachment theorists posit that a positive relationship with an attentive and consistent mentor can help mentees to feel “worthy of care,” and more able and willing to seek emotional support (45:p.693). Mentors also promote positive identity development by serving as role models and advocates for their mentees; this can be particularly impactful for low-income and at-risk youth, who may have limited access to positive role models within their immediate or extended family (45). For such mentees, a mentoring relationship can expand their visions of the possibilities available to them – what Rhodes et al (2006) refer to as their “*possible selves*” (p.695).

The following two questions aim to discover whether mentees experienced empowering outcomes as a result of their participation in the program.

- d-i. Have mentees experienced empowering *instrumental* outcomes?
- d-ii. Have mentees experienced empowering *developmental* outcomes?

Research Methods

In order to answer the research questions outlined above, I will make use of data collected by the eMentoring team between September 2011 and December 2014. The eMentoring evaluation model combines impact and process evaluation data to give a comprehensive picture of the eMentoring program's successes and challenges, as well as "the applicability and effectiveness of technology-enabled interventions" (25:p.12f). This approach is consistent with the mentoring and Community Development literature, which indicates that the use of mixed methods enhances the evaluation of complex concepts and processes, in large part because it enables the triangulation of multiple data sources (16,38,41,46).

eMentoring Evaluation Model

Impact evaluation. The impact evaluation component of the research program seeks to understand eMentoring's efficacy in fostering positive mentee-mentor relationships, as well as its impacts on mentees' educational and career trajectories. The pre-post multiple case comparative design consists of a series of surveys for mentees, parents and mentors intended to measure the quality of mentee-mentor relationships, and the effect of the intervention on select personal, academic and behavioural outcomes. The cycle of surveys for each academic year includes a baseline survey at registration, and mid- and end-of-year timepoint surveys. The impact evaluation also makes use of mentor-mentee conversation transcripts and participation (or program monitoring) statistics automatically collected by icouldbe.org.

This research paper makes use of the timepoint survey data collected from mentors; more specifically, mentors' ratings of agreement with statements indicative of the nature of their relationships with their mentees. Program monitoring statistics are also used to give a sense of participation levels, both overall and within pairs. The original proposal for this research project included the use of mentee baseline and timepoint surveys to capture mentees' perspectives on their relationships with their mentors, as well as pre-post measures of outcomes. Unfortunately, due to challenges with guardian consent and mentee timepoint survey response rates, the sample size is insufficient to include in the analysis. The quantitative data will be complemented by an analysis of conversation transcripts from the 2013/14 school year, which will provide evidence related to

relationship dynamics and mutuality; storytelling and real talk; and, mentee outcomes. Finally, the content of the Junior and Senior Quest streams are reviewed for evidence of its consistency with the stated aims of the program, and an empowering organizational belief system.

Process evaluation. The process evaluation seeks to identify successes and challenges in the design and implementation of the program, including: mentor and mentee recruitment, matching and management; curriculum development; program evaluation; and, partnership structure and role relationships. The process data includes surveys and interviews with project staff and partners, as well as relevant documentation created by the eMentoring team. This component of the evaluation feeds “a process of continuous learning” which has informed adjustments to the program throughout its implementation (16).

This research project will make use of process evaluation interviews conducted in Spring-Summer 2012 and October-December 2014 to answer the research questions related to organizational structure and partnerships. The interview data also provides supplementary evidence regarding the effectiveness of the Personal Quest, the nature of mentor-mentee relationships, and the benefits of the program to mentees. A 2013/14 report written by a School District Lead, which includes comments from teacher-advocates involved in the program, is also included in the interview data set.

Analysis Procedures and Assumptions

Quantitative analysis. The basic descriptive analysis of mentor timepoint survey and program monitoring data was conducted using Microsoft Excel. GNU PSPP open source statistical software was used for generating cross tabulations (crosstabs) and calculating measures of association (MOAs) for survey data and participation statistics (Cramer’s V, tau c, and linear regression). My analysis of relationship strength for the ordinal and ratio MOAs are based on the thresholds outlined in Table A-2.

A number of assumptions and calculations were made as the basis for some of the data presented. Firstly, the results include mentees that did not “meet criteria for minimum levels of contact or longevity” in order to ensure that the results reflect a realistic picture of mentee and mentor experiences in the program (20:p.160). Many of the results are presented by the amount of time logged by the mentee in each pair. In order to facilitate ease of comparison, I divided mentees (and, thereby, pairs) into “high,” “moderate” and “low” activity groups. These categories were defined by first ranking mentees by the amount of time logged, and dividing them into rough terciles. This process was conducted separately for Junior and Senior mentees, but the Junior stream terciles were ultimately used to emphasize the experience of the highest performing pairs. Pairs in which mentees logged 300 minutes or more are referred to as “high” activity; between 200 and 299, as “moderate” activity; and,

less than 200, as “low” activity. For the survey data crosstabs and MOAs, the high and low groups were further divided to capture greater detail at the top and bottom of the scale; “very high” activity mentees logged more than 400 minutes, and those who logged less than 100 minutes are considered “very low” activity.

Secondly, 16 mentor-mentee pairs in 2013/14 logged time in the original Quest before the new Quest was launched in early November.¹ For technical reasons, the logs from these first two to three weeks of activity were not retained in the activity logs for the year; for some pairs, this represented a significant portion of their interaction. In order to capture some measure of the activity before the transition, I multiplied the average time each participant had logged per post in the new Quest, by the number of posts written in the old Quest; the estimates were then added to the total log time for each respective mentee and mentor. Thirdly, some of the charts in the paper report the amount of time logged by mentors per mentee; since the icouldbe.org program-monitoring tool only provides gross participation data, the totals for mentors with multiple mentees had to be estimated. The estimates were calculated by dividing the mentors’ total log time proportionally in relation to the amount of time each mentee logged. (Mentors were assumed to have logged a minimum of 10% of their time on each mentee.)

Qualitative analysis. The Personal Quest content, conversation transcripts and process evaluation interviews were analyzed using the student edition of NVivo 10. A combination of structured and emergent coding was used in order to answer the research questions while still allowing participants’ perspectives and experiences to shape the results. This is consistent with a narrative analysis approach, which posits that the stories and ideas are collaboratively constructed, and reflect what is important to the participants (21,41,56). For each of the sources, I conducted initial coding using a structured coding scheme based on the research questions and the key indicators derived from the literature. In the case of the conversation transcripts, this stage also included writing memos with general observations for each pair in terms of the depth and tone of conversation, and the degree to which pairs shared personal stories and information. Once the initial structured nodes were populated, I conducted focused coding to identify emergent categories within each node. Finally, I reviewed the emergent categories and thematically coded the nodes that required further refinement. After coding was complete, I ran queries to examine the references for each node by the activity level of the mentee in each pair. In order to get a more concrete sense of how the conversations varied by activity level, I generated a matrix of the number of references under each node within the three activity groups.

¹ The delivery of the new Personal Quest by icouldbe was delayed by over one month; Leads that had scheduled

Participation

Impact evaluation. Table 1 provides a summary of mentor and mentee enrollment in the program, as well as the number of matches made per year. A total of the 189 Aboriginal students (mentees) applied to the program since it launched in Fall 2010; 142 went on to enroll on the icouldbe.org website and be matched with a mentor. Some mentees continued in the program from year to year; 38% continued from 2011/12 to 2012/13, and 14% continued to 2013/14. Mentee enrollment more than doubled in 2013/14.

A total of 120 university students have applied to be mentors in the program; 70 were accepted and went on the register on the icouldbe website. A high proportion of mentors continued in the program for more than one year; 74% continued from 2011/12 to 2012/13, and 64% continued in the 2013/14 school year. Of the 28 mentors who continued with the program in 2013/14, 14 had been with the program for 3 years.

Over 150 matches were made between mentors and mentees since the program launched. There were 45 pairs in the program in 2012/13, 17 of which had continued from the previous year; 73 new pairs were matched in 2013/14 with the launch of the new Personal Quest. The number of pairs does not correspond with the number of mentees because the eMentoring program model allows each mentor to be assigned to two active mentees.² More mentors were matched to multiple mentees in 2013/14, when the demand for mentors outstripped supply. Some mentees were also matched with two or three different mentors over the course of a year, either in response to mentor inactivity or high mentee activity that required additional mentor capacity.

Table 1. Number of new and continuing pairs, mentors and mentees registered on icouldbe.org, by year

Year	Pairs			Mentors			Mentees		
	New	Continuing	Total	New	Continuing	Total	New	Continuing	Total
2011-12	54	0	54	38	0	38	47	0	47
2012-13	28	17	45	16	28	44	17	18	35
2013-14	73	0	73	17	28	45	79	5	84³
Total	155	17		70	56		142	33	

Survey sample. The mentor timepoint sample includes 60 surveys: 29 mid- and end-of-year surveys completed in 2012/13, and 31 end-of-year surveys in 2013/14. As shown in Table 2, response rates to the mid-year 2012/13 and end-year 2013/14 surveys were high. Results for 2012/13 should be interpreted with some caution, as they represent mentor responses based on a shorter span of time; the

² In some cases, mentors were matched with 3 or more mentees over the course of a school year if one or more of their existing mentees was consistently inactive.

³ The 2013/14 total for mentees includes 12 mentees that were signed up on icouldbe.org by their Lead without having formally applied to the program; these mentees were not matched with a mentor.

survey was conducted in February-March, and some pairs remained active until the end of May (Figure 12, p.43).

Table 2. Response rates to 2012/13 and 2013/14 mentor timepoint surveys

Survey Collection Period	Responses (n)	Total Pairs (N) ⁴	Response Rate
2012/13 Mid-Year	23 ⁵	35	65%
2012/13 End-Year	11	36	30%
2013/14	31	50	62%

Table 3 indicates that the survey sample represents mentees across the range of activity levels. However, when compared to the distribution of mentees across the three Quest streams, it is apparent that the sample underrepresents mentees in the Senior stream and, more specifically, lower activity mentees in the Junior and Senior Quests. This is somewhat expected, as mentors whose mentees log more may feel more motivated to complete a survey about the relationship.

Table 3. Number and proportion of mentees represented in the mentor timepoint survey sample, by Quest stream and total mentee log time

Mentee Log Time	Mentees in sample ⁶		Proportion of all mentees (N) represented in sample (n)								
			Original Quest			Junior Quest			Senior Quest		
	n	%	n	N	%	n	N	%	n	N	%
Less than 100	21	38%	16	25	64%	0	4	0%	5	34	15%
100 to 199	11	24%	5	5	100%	3	6	50%	3	9	33%
200 to 299	9	16%	0	1	0%	6	9	67%	3	7	43%
300 to 399	4	7%	1	2	50%	3	6	50%	0	1	0%
400 or more	10	15%	2	2	100%	5	5	100%	3	3	100%
Total	55	100%	24	35	69%	17	30	57%	14	54	26%

Conversation sample. The conversation analysis includes transcripts of a sub-sample of mentee-mentor pairs that participated in the program during the 2013/14 academic year. The proposal for this project aimed to include a representative sample of 30 to 40 pairs. However, due to the aforementioned parental consent difficulties, there are only six pairs for which consent was received from the mentee, parent and mentor. In order to improve the representation of mentee experiences in the analysis, I included mentee posts from the transcripts of six pairs for which mentee and parent consent was secure, but mentor consent was lacking.⁷ This small sample of conversations represents pairs of a range of activity levels; four pairs in the high activity group, five pairs in the moderate activity group (2 with

⁴ Total pairs for which the mentor had given research consent.

⁵ Includes 5 surveys that are excluded from the results because the mentors had not yet connected with their mentees, which triggered the online survey to skip over the questions included in this analysis.

⁶ The number of mentees in the sample differs from the total number of surveys because 5 mentees in 2012/13 were represented in two surveys (either by the same mentor at two time points, or by two different mentors).

⁷ The placement of mentor comments within each conversation thread was noted, but the content was excluded.

mentor consent); and, three pairs in the low activity group (1 with mentor consent); Figure 11 (p.42) shows the distribution of the conversation sample in relation to the activity levels of all pairs.

Process evaluation. The UBC team conducted 23 process evaluation interviews between April and December 2012. Interviewees included a cross-section of project staff and partners: four staff involved over the proposal, program development and early implementation; four Community Leads; two teachers and/or Aboriginal advocates (hereby referred to as “teacher-advocates”); three representatives of First Nation community or School District leadership; seven members of the Principal Investigator team; and a few other institutional partners. An additional 6 interviews were conducted between October and December 2014 with staff and a selection of community partners (Leads and teacher-advocates) involved in the program in 2012/13 and/or 2013/14. These interviews focused more on the interviewees’ perspectives on the partnerships, program implementation, responsiveness to challenges, and mentor-mentee relationships.

Ethics

All of the data used for the purposes of this project were collected as part of the eMentoring research program. Mentees and mentors are invited to participate in the research component of the program during the intake process. Participants are included in the research program once they complete a consent/assent form; in the case of mentees under the age of 16, a parent or guardian must also give consent for their child to participate. Research participation is optional, and declining consent does not have consequences for mentees’ or mentors’ participation in the program. Staff and partners who participated in the process evaluation interviews were also asked to give formal consent.

The UBC Research Ethics Board (REB) approved eMentoring’s data collection and ethics procedures and materials, including all amendments. My access to the research data is enabled by my membership in the eMentoring research team on the UBC ethics application (formerly as staff, and currently as a student researcher); the Principal Investigator of the program is also co-supervisor of this research project. As an Athabasca University (AU) Master’s research project, the AU REB also approved the procedures and materials for this project.

Limitations

There are some limitations with this research project that relate to the nature of the eMentoring program and the research design. Firstly, the quantitative data used in the analysis is drawn from surveys designed for the purposes of the eMentoring research program, rather than the specific research questions of this project. The survey measures offer relevant insights into my research questions, but may not offer the direct answers that could have been obtained with a survey specific to

this research project. Secondly, mentees' perspectives are not represented in the survey results due to the challenges with participation consent and mentee timepoint survey response rates. The lack of data obtained directly from mentees makes it difficult to draw confident conclusions regarding the outcomes of the program.

Thirdly, the small conversation sample makes it difficult to form representative conclusions regarding the nature of mentor-mentee relationships and mentee outcomes. In addition to the aforementioned consent challenges, delays in obtaining ethics approval from the UBC REB to include the 2012/13 conversation transcripts in the impact evaluation contributed to the limited sample. Fourthly, it is challenging to draw conclusions regarding mentee outcomes from the conversation data, given that there is no baseline data to determine exactly what new information and experiences mentees were exposed to through the program. Mentees will not always explicitly identify which pieces of information are new to them; therefore, it is possible that mentees learned more than what can be gleaned from their posts.

Fifthly, the lack of a control group – as well as the small, non-random sample – detracts from the generalizability of results. This also makes it more difficult to separate the impact of the eMentoring interventions from that of other external processes, such as long-term trends, short-term events or interference, and natural processes of adolescent development (16,46). The research team made a conscious decision to prioritize the needs and well-being of partners and participants over scientific reliability and validity (16). It should also be noted that the statistical significance of the mentor survey results is generally weak, and should be interpreted with caution due to the small sample size.

Sixthly, measuring the outcomes of transformative learning is also complicated by the fact that the process may not follow a linear path, but instead involve “negotiation and compromise, stalling, backsliding, self-deception and failure” (33:p.8). As such, each mentee will be impacted differently by their experience in the program, and the full impacts may not be perceptible until many months or years in the future (16). The timeframe of the eMentoring research program, with roughly three years for program implementation and data collection, is expected to capture primarily short-term and some mid-term outcomes.

Finally, it is difficult to make confident conclusions regarding the program structure and outcomes due to the flexibility of the eMentoring model, and the fact that it is an exploratory program under continual development (16). Craig (2002) anticipates that evaluation of multifaceted interventions may reveal the complexity of community development, rather than a clear conclusion regarding a program's

success or failure. For this reason, it is more fruitful to focus relationship development and program change, thereby contributing to our knowledge of effective program design (16).

Results

A. Organizational Structure and Partnerships

a-i. Is control and ownership of eMentoring effectively shared among the UBC team and community partners?

The results of the Process Evaluation interviews suggest that eMentoring's community partners were given ample opportunities to be meaningfully involved in program development and implementation. These processes were not without conflict, disagreement or cultural challenges – however, there seems to be general agreement that UBC staff took a facilitative, rather than prescriptive, role in implementation, and approached communities with respect, humility, and openness to critical feedback.

[Staff member] has a way of working with Aboriginal communities ... that seems to really work. ... she's very patient and respectful, and somehow she just gets people to trust her. And she's very supportive. ... And I think that... on an individual relationship basis, if you pool those all together it creates that success on a community level. [Staff member, July 2012]

The Community Leads were given the freedom to implement the program in ways that best suited their particular context. The Leads interviewed typically agreed that they were given adequate support from the UBC team, and could adjust the program model to meet their needs.

... I felt supported. I like that I was able to do kind of whatever I wanted, and ... how we could adjust to whatever the school needed [which] I thought was important. So there wasn't only one way to run the program, which was good. [Community Lead, Oct 2014]

Community partners were also given the opportunity to contribute to the research tools, Quest development and mentor training processes. One Lead reported that the experience of participating in the mentor training process was meaningful, and enhanced her role as Lead.

I was really honoured, and I was really glad that we went to that mentor training... because... as the Community Lead we're able to see who these mentors are that are going to be working with [community] students ... because... I have to sell that to the parents because, you know, the kids are not able to meet [their mentors] in person... by being a part of that training, if there was a [red] flag... I am able to address that right away. [Community Lead, Oct 2012]

Some Community Leads also demonstrated a sense of ownership through their commitment to the program. However, the goal of shared ownership was not fully achieved until the final year of CIHR funding, when the first School District hired a new Lead internally via a department that provides support programs for vulnerable students. Prior to this point, the UBC team appointed the Leads in the School Districts; this change embedded eMentoring within the District's program offerings, and made

the Lead directly accountable to District administration. The internal Lead took charge of the program, developing relationships with teacher-advocates in seven schools, and adding new elements to the program that did not exist in previous years. This included: setting regular times and spaces for mentees to work on the Quest; bringing together mentees from neighbouring elementary and high schools for regular sessions; and, doing in-person activities to engage the kids outside of the online program (including a field trip to UBC organized in partnership with eMentoring staff). The Lead reported that eMentoring became seen as part of the internal offerings of the School District by administration, as well as part of the learning “culture” for Aboriginal students in participating schools.

It just became apart of [the schools’] program and in some respects a part of the culture for whatever age group we were working with. ... actually making it a thing, “oh yeah, well, we do this here, we have eMentoring.” And, hearing our District Principal talk about that ... it’s an established kind of thing. [Community Lead, Oct 2014]

In contrast to the Lead, the teacher-advocates interviewed still saw eMentoring as a UBC-owned program, despite it being coordinated by a District staff member in the last year. However, they did report that the program became part of their regular routine, which is indicative that they had a degree of buy-in to the program.

Following the success of the 2013/14 school year, the District committed to funding the part-time Lead position internally. This investment of the School Districts resources is a solid indication that the District feels a sense of ownership for the project, and sees the value in the program for its Aboriginal students.

... [School District] has now funded 20 hours a week of ... a Community [Lead] for us. ... it’s part of one of their staff member’s roles ... so it’s really connecting it into the fabric of the work that they’re doing. ... I also think that there is a cultural authority ... in a School District culture way, that if you have people who are operationally embedded within the School District and working on eMentoring, you have a greater success rate of them knowing teachers, and ... the Aboriginal coordinators, and ... the kinds of tasks, and the people, and the processes, you need to do in order to make it successful. [Principal Investigator, Oct 2014]

The Principal Investigator’s long term vision is to use a franchisee model, in which School Districts or communities “purchase” the right to use the eMentoring program by funding the Lead position (17). In contrast to traditional franchises, however, partners would be free to be “entrepreneurial” and adapt the program to meet the needs of their mentees (17).

I want eMentoring to own its brand. I want it to own the training materials, the processes of recruitment, the curriculum and the platform, and then I want School Districts to ‘run the restaurant,’ right? And so, people will know that it’s eMentoring, but it’s [District’s] eMentoring, [etc.] ... So what happens is they are part of a network, and they don’t have to worry about all the parts that go into that, and we don’t have to worry about the delivery end of it. [Principal Investigator, Oct 2014]

This vision illustrates the willingness of the UBC team to share ownership of the program with its partners.

a-ii. Is eMentoring contributing to capacity building in the school districts and First Nations communities?

The Process Evaluation interviews suggest that eMentoring has contributed to capacity building at the community and SD levels, both in terms of personal skill development and organizational capacity. At the individual level, some Leads reported gaining experience in implementing a new program, as well as professional skills associated with promoting the program to students and staff, communicating with a variety of people, and facilitating the research component of the program. One Lead reported:

I gained a lot. ... I've always been part of programs where it's set up for me and I just go and do it. ... I had to take it on and figure it out kind of for myself. So it was a really good learning tool. I learned about program development, and how to implement it in schools, and ... what happens if something goes wrong, and what happens when somebody says 'no,' and all that kind of stuff. [Community Lead, Oct 2014]

Teacher-advocates reported that eMentoring gave them the opportunity to interact with their students in a different context. This allowed them to build closer relationships with their students, and ultimately offer them more personalized support.

I think it's been good for me to get to know them [students] ... because ... you can't sit there and really one-on-one talk with them when you go into the class to check in on them and stuff, right? ... this way, it's like they're out of class and that you see them like themselves – how they really are – so that was neat. [Teacher-advocate, Nov 2014]

At the organizational level, the interviews indicate that eMentoring contributed to the capacity of schools or communities by providing: additional learning opportunities for their students; a concurrent opportunity to fulfill a component of their strategic mission (to effectively support their Aboriginal students); and, providing computers to improve student access⁸, as needed. As one Lead noted:

It gave them an opportunity to take kids that might not have something to do and it gave them something to do. It was an extra offering for the school ... something that they have to offer to students that might be at risk... [Community Lead, Oct 2014]

a-iii. Is eMentoring responsive to internal and external challenges?

The process evaluation interviews identified the flexibility and adaptability of the eMentoring model – informed by ongoing formal and informal evaluation – as one of the program's key strengths.

I think another one of our big successes is that we are able to look at what we're doing and adapt as we go. Yes, we did that big formal process evaluation... but we also do that consistently on a smaller

⁸ eMentoring provided used computers via Computers for Schools BC to schools and communities that identified limited computer access as a barrier to participation. One community partner was given five tablets purchased with special funding awarded to the program by Ashoka Changemakers (15).

scale. And that's something that [we] really started to do, was to really streamline the work. ... I think we were really forced to do that since we are such a small team now. ... [The Principal Investigator] gave us the flexibility and the 'okay,' basically, to do that as we saw needed. [Staff member, Oct 2014]

More specifically, the interviews revealed many significant challenges the program encountered over its four years. Some of the internal challenges included: partnership development, community lead accountability and turnover, staff capacity and turnover, and funding sustainability. The program also faced significant external challenges, including: the 2011/12 and 2013/14 BC teacher's association job actions and strikes (27,53); computer and Internet access in schools and communities; and, community and family instability. Exploring eMentoring's responses to all of these challenges is beyond the scope of this paper; the following analysis focuses on challenges related to mentee engagement and Community Lead accountability.

Mentee engagement. During the first two years of implementation, eMentoring experienced relatively low levels of mentee engagement, with considerable drop-off in activity levels as each school year progressed. The eMentoring team's experience of running the program over the first two years indicated that this could be attributed to two main factors: 1) the content of the Personal Quest; and, 2) mentee motivation and access to participate.

Personal Quest. The UBC team received a great deal of feedback from Community Leads and other partners regarding aspects of the original Personal Quest that discouraged active participation. These included: the large volume of content; the text-heavy nature of the activities; the use of a single curriculum for youth in a wide range of developmental stages; and, the limited representation of the diverse Aboriginal cultures across BC. A number of partners also suggested that participation would improve if mentees could earn course credit for completing the Quest; particularly for Senior mentees, who have heavier course loads.

In response to this feedback, the UBC team hired an Aboriginal curriculum developer and struck a working group made up of a cross-section of eMentoring's Principal Investigator group, Community Leads, and UBC partners. The working group redesigned the basic structure and content of the original Quest to address the concerns, including: 1) dividing the Quest into a Junior and Senior stream to make the content more age-appropriate; 2) reducing the overall number of units, as well as the number of activities in each unit; 3) replacing a large amount of text with multimedia content (videos, games, online quizzes, etc.); and, 4) adding custom videos of Aboriginal role models from across BC with a variety of cultural and academic backgrounds.

Teacher-advocates and Leads reported feeling that the new Quest was of high quality and effectively engaged mentees (particularly elementary students in the Junior stream).

I think the kids kind of, like, thought it [the original Quest] was boring... they told me. And, then they even said it's fun now. And they were all excited, and they would come to me all the time, asking ... "when are we doing eMentorship? When is it?" Because ... it wasn't just strictly learning questions ... there were fun things for them to do on there. [Teacher-advocate, Nov 2014]

The year-over-year increase in mentee activity levels (question c-ii, p.41) is also indicative of mentee's engagement with the content. However, there are still areas in which both streams could be improved, and the issue of offering credit for completing the Quest remains a point of discussion.

Kids are just finding the content a lot more relatable. It's fun. ... Times that we went ... into the [computer] lab where the kids were working on the program, and they were playing the ... educational games about online bullying... and netiquette stuff, and they were completely engaged in the activities, and at the same time learning about the content. This really resonated well with the younger kids. And this was one of the pieces of feedback we got about the Quest, in general, for the younger kids is that we're still not perfectly there in terms of keeping them engaged and making the content relevant. There are still some areas that we could improve, but overall it's been huge – hugely different. The retention rate is phenomenal compared to the first two years where, literally, we would lose entire communities... [Staff member, Dec 2014]

Mentee motivation and access. The UBC team and Community Leads also realized over the first two years that the expectation that mentees would have the time, motivation and computer access to work on the Personal Quest independently may not be realistic.

There were a handful of girls that were interested in pursuing and continuing on, and some of them were like, 'Oh, I wish I could do it at home, but I don't have internet at home.' That was a problem. [Teacher-advocate, Nov 2014]

This is particularly true outside of school hours, when eMentoring faces much more competition for students' attention, including: friends, homework, family responsibilities, paid work, and extracurricular activities. Many urban and rural youth also face instability in their family or community life – a factor that some interviewees linked to apathy or lack of interest amongst mentees. Even if a mentee enjoys the program, she must make time to log in amongst these other commitments and distractions.

There was a lot of stuff going on in their home life ... I know one of the students ... started off really good, and then something happened in the home, and then she ended up moving in with her dad and then she had a hard time accessing the computer ... So [now] she wants to come back. ... Some of [the others] are... very active in sports. [Community Lead, Oct 2012]

You could even have it planned and then there'd be a death in the community, and then half the kids wouldn't come into school because ... they're all in mourning ... We had 10 deaths last year in the community, and each death, you know, kids would be out for a week. ... It would just seem that they would just get over one, and then the whole community would be reeling over the next one. [Teacher-advocate, Nov 2014]

In 2012/13, some of the Leads began collaborating with teacher-advocates to arrange structured time and space for mentees to work on the Personal Quest. This approach resulted in more sustained mentee engagement, and was applied more consistently the following year.

In the past, when the kids were just supposed to do the program on their own time, we had very little success. Having the kids do it in a group situation, and facilitated by [the Lead], increased our participation rate. [Teacher-advocate, District Lead Report]

The program monitoring statistics (p.42), as well as feedback from Leads and teachers, indicate that this approach was particularly effective for elementary school students. Engaging high school students was more of a challenge, possibly due in part to: the aforementioned lack of course credit; the content of the Senior Quest (some of the early units may be less engaging for older youth); and, youth social development (peer pressure making it “uncool” to be involved in this type of program).

As the year went on... everything was so set it was just clockwork. ... For elementary school kids, it was easier to get them online. The high school kids were doing it at their lunches, and they had a choice whether they were there or not, but for the elementary school kids it was just part of the routine – part of what they did. [Community Lead, Oct 2014]

It has to do with peer pressure... What I find, too, you know, if they started out good in the program, and then they go over to the school and become too cool to be in this program. [Community Lead, Oct 2012]

Community Lead accountability. While the UBC team formed positive working relationships with most of its Community Leads, they experienced difficulties in maintaining connections with some of the Leads in the more distant communities. It was common for staff to experience long silences from these Leads, even after repeated attempts to make contact (via email, phone, and contacting their supervisors in administration – who were often difficult to reach as well).

The hugest thing with our communities is lack of structure. In the Districts ... it's really structured, and you can work with what's already in place to make eMentoring work within the School District. When you go into a community, there may or may not be programs that are running, but... from what I've seen... I feel like it's all over the place. ... I found it frustrating because in the beginning when I especially was doing coordination of just getting mentees on board ... it was like a gong show... trying to just have your Community Lead answer you, or have someone in the community get back to you in a timely fashion. [Staff member, Jul 2012]

This problem created a significant disconnect in the project, since the UBC team is completely reliant upon community partners for implementation.

Following the first year of operation, the UBC team responded to feedback from Leads, SD and community leaders, and staff regarding improving Lead performance and communication. This included providing a resource package for Leads with: a more detailed job description with performance goals; step-by-step instructions for the formal application and research process; and, an organizational chart

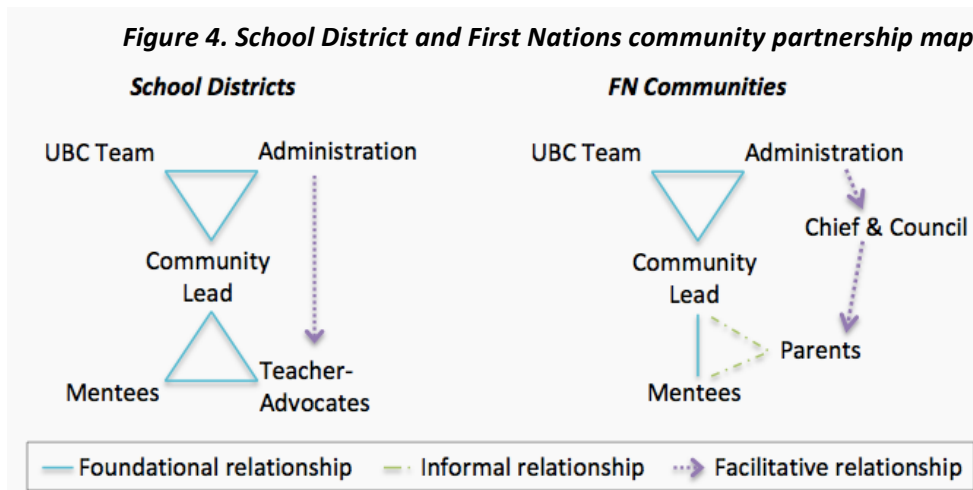
showing their roles in relation to the rest of the eMentoring team. UBC staff also facilitated a web-conference training session at the beginning of the 2012/13 year to review the content of the package with the new and continuing Leads. The UBC team also formalized the existing bi-monthly update meetings as part of the Lead role, as an opportunity for Leads to report on progress and share strategies and lessons learned. The Leads generally agreed that the meetings were useful; however, inconsistent attendance among some Leads remained an issue.

These challenges point to a latent tension between the Leads' roles as both a partner and an employee. Leads were treated as partners by the UBC team, but were also employees paid with eMentoring grant funds. This created a challenge in enforcing performance expectations without impinging on each partner's autonomy, and tipping the balance of power towards the UBC team.

I guess one of the tensions we found with this project... was our relationship with [the Leads]. Like, are we their employer? Or, are we their partner? ... We actually don't use [the term] 'employer' very often, but we deal with issues that are kind of employer-like. So, it's a bit confusing in how our relationship goes. For example, if we are paying people to do the work, but they're not producing anything, then we feel a little bit like the employer – wanting accountability ... but also we use all this language around... [being] equal partners, so it's hard to, like, fire your partner. [Staff member, Jul 2012]

The Lead role is also a part-time commitment, and many Leads had multiple work and educational commitments that could easily encroach on their eMentoring time without consistent, in-person reinforcement of their responsibilities.

The issue of Community Lead accountability is tied to the structure of the partnership in each eMentoring site. Figure 4 visualizes the general relationship structure of eMentoring's School District and First Nation community partnerships. While there are some notable differences, both structures are based on foundational connections between: 1) the UBC team, administration and the Community Lead; and, 2) the Lead and mentees. The most successful partnerships were characterized by consistent



communication within these two sets of relationships.

UBC team-administration-Lead relationship. The hierarchical nature of the School Districts made it relatively easier to identify administrators in a good strategic position to support the program. The experience in the Districts indicates that support from one level of the organizational hierarchy is not sufficient for successfully rolling out the program. The most successful School District had strong support from the District Principal of Aboriginal Education, who approved the program as a tool for Aboriginal teacher-advocates to use with their students. This official support from administration enabled teacher-advocates to legitimately adopt the program as part of their regular work.

eMentoring struggled to gain a foothold in School Districts where either: turnover in the District Principal role resulted in set backs while re-establishing the relationship; or, the UBC team had connected a high-level administrator who was unable to translate her support into direct connections at the school level.

... our [Community Lead] wasn't well connected with the School District. ... There was a bit of a disconnect, because we started at a community level and tried to move into the School District... We actually had phenomenal conversations with ... one of the vice superintendent District leads, [who] had all kinds of passion for what we were doing, but she wasn't connected with the Aboriginal coordinators. ... the level of leadership didn't translate into the place in which the program could exist. [Principal Investigator, Oct 2014]

In the School Districts with externally hired Leads, school administration had no direct relationship to the Lead, and thereby no mandate or authority to oversee their work.

With respect to First Nations partners, the UBC team engaged three different types of communities: 1) individual bands; 2) Nations (made up of multiple bands); or, 3) on-reserve community schools. This, in addition to the fact that the communities did not have uniform administrative structures, made the partnership process more complex.

I think every community is going to be different. When you move into a community setting, you're dealing with less structure than with a School District. The School District already has a protocol in place, and kind of an idea of who is in charge of what area... and what is their capacity, basically. [Staff member, Oct 2014]

eMentoring's connections within administration included education offices, community development departments, and community school principals. The UBC team approached community partnerships by first gaining support from a contact within administration. This contact would identify and supervise a Community Lead, and assist the UBC team in navigating local protocols – including gaining approval from chief and council. The team anticipated that the partners in administration would reinforce the Leads in their roles; however, this did not typically materialize either due to the partners' limited capacity, significant turnover in leadership, or a limited formal sense of accountability to the program.

In talking with our contact [in the community], she said that... basically everyone in [their] community leadership is changing. ... she said at this point it seems unlikely [that the mentees will continue next year]. ... It's borderline impossible to work with a community that has such high turnover. ... We need a Community Lead to guide [the community engagement] process, but you can't have a Community Lead until the community is on board with the project. [Staff member, Aug 2012]

[Some critical factors for success include] strong Community Leads ... we have examples from a School District and a community setting... And, like a strong support for them in each site... It's funny that both having a strong Lead and a strong supporter for the Leads happened in the same cases. Because [in one community] we kind of had a iffy Lead and a kind of hands-off supervisor – [in another community], same thing, good Lead, but too busy of a supervisor. [Staff member, Aug 2012]

Lead-mentee relationship. In the School Districts, the teacher-advocates acted as “gatekeepers” (47), giving the Lead access to students and facilitating an initial introduction that supported a baseline level of trust. Teacher-advocates also provided instrumental support, such as negotiating time and space for mentee participation. The degree of support from teacher-advocates within each school has a direct impact on mentee recruitment and activity levels, with some exceptions.

You still need that people connection. Early on the people who are the drivers, and not necessarily the students... I think it's the people that are really involved in connecting with the students – that's the key piece. How do you connect with the students to get them involved with something like this? ... It kind of goes back to the teachers again... because they're the ones who have the connection with the kids. [SD Leadership, Sep 2012]

...you'd want to have somebody in the school take this on as part of ... their portfolio that they're working on in the school, and really focus on it. Because when I participated in [eMentoring] it was kind of just something that I felt was thrown at me, and I didn't know anything about it. ... So I feel like there was a big disconnect. [Teacher-advocate, Sep 2012]

The Lead-mentee relationship was particularly strong within schools where the Lead and teacher-advocate established a regular schedule of eMentoring sessions.

The UBC team found that if there was a disconnect in one or more of the formalized or facilitative relationships (Figure 4), the program would have minimal uptake. For example, the Lead for one District was based out of a First Nations community in the region, and had no existing connections to schools or teachers in the District. In 2012/13, the District Principal connected the Lead with a teacher eager to run the program in one of his classes; after the students were registered in the program, the Lead lost contact with the teacher and had difficulty connecting with the District Principal.

Within the community partnerships, the Community Leads were the mentees' only direct connection to the program. While one First Nation Lead strongly emphasized connections with parents as a means of reinforcing participation, mentee activity levels did not respond to this approach in the long run. Another Lead in a community school noted that she and her mentees would have benefitted from

having more support in running the program, due to the wide range of learning abilities and interest levels in her classroom.

...the days that we did [eMentoring] if they [a handful of parents] came in and helped ... or just anybody in the community that is interested in helping, even if it was elders ... because the elders really care about the kids succeeding. But I just think there needs to be more help, because I'm pretty sure on most reserves you're going to have that wide range of learning and apathy ... I just think there has to be more than one [adult] in the room. [Teacher-advocate, Nov 2014]

Participation within all of the First Nations communities may have benefitted from the involvement of an additional support person for the Lead (a teacher, volunteer parent or elder, etc.) to support the Lead and reinforce mentee participation.

It is also important to note that the majority of mentee recruitment and activity within the bands and Nations involved tended to occur outside of school hours, which presents different challenges for Leads.

I think ... [you have] to understand that there are different factors that influence the uptake in a school – you know, the teachers, the youth workers, the Aboriginal coordinators ... – that are very different in a community, which may turn into an after-school program for youth. ... acknowledging that if you start to go into after school places of an Aboriginal youth's life, there's a different way of approaching how you really get them engaged. ... for the community Leads, it was a different challenge then for the school Leads. [Principal Investigator, Nov 2014]

In one community, the successive Leads made efforts to approach students through the schools, but did not experience it as successful strategy. The experience in the School Districts indicates that this was likely because the school administrators were not formally engaged by eMentoring, giving Leads more limited access to students.

B. Learning Space

b-i. Is the content and structure of the Personal Quest conducive to real talk between mentors and mentees?

The overall results from the mentor relationship surveys and conversation data indicate that many mentor-mentee pairs in the eMentoring program have not engaged in real talk. However, the data shows that as mentees spend more time on the Quest, indications of real talk – reciprocity and depth of conversation – become increasingly evident. This is consistent with the literature, which indicates that building the familiarity and trust necessary for real talk takes time (54).

Reciprocity. Three measures from the mentor timepoint survey were used as indicators of reciprocity – mentor ratings of mentee appreciation, eagerness and resistance. While the ratings indicate that reciprocity increases as mentees spend more time on the Quest, many mentors across the activity groups reported uncertainty or neutrality. This seems to be a reflection of the emotional leanness of online space, which makes it more difficult to gauge the emotional state of one's counterpart (46).

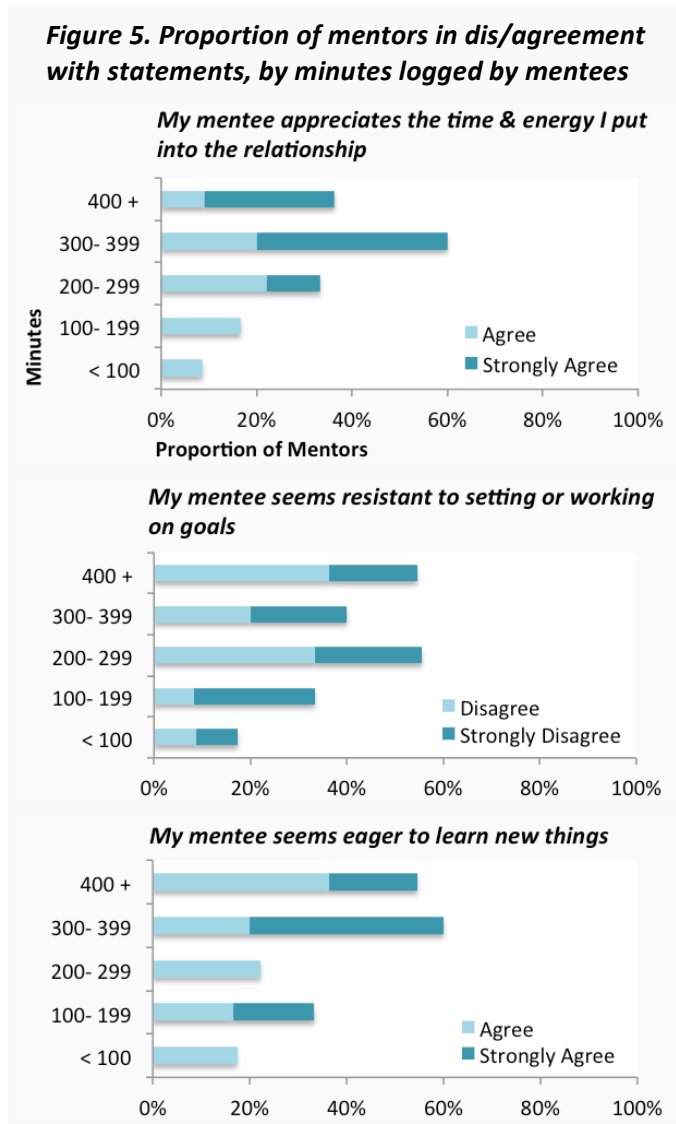
Just 23% of mentors agreed with the statement, “my mentee appreciates the time and energy I put into the relationship” (Question 36, Table A-1), though 63% were neutral or unsure. Mentor ratings varied moderately by the amount of time logged by mentees (tau c = 0.29, NS). Figure 5 shows an increase in the proportion of mentors in agreement when mentees logged more than 200 minutes. Just 7% of mentors with mentees in the Senior stream were in agreement, compared to 35% for the Junior stream and 24% for the Original Quest (Cramer’s V = 0.31, NS).

One-fourth (35%) of mentors disagreed with the statement, “my mentee seems resistant to setting or working on goals” (Question 37, Table A-1); 40% were neutral or unsure. There is a moderate relationship between mentor rating and the time logged by mentees (tau c = 0.28, NS). Figure 5 shows that disagreement

was generally higher among mentors whose mentees logged 200 minutes or more. One-third (35%) of mentors with mentees in the Senior stream in agreement, compared to 23% in the Junior stream and 20% in the original Quest (Cramer’s V = 0.34, NS).

One third (31%) of mentors agreed with the statement, “my mentee seems eager to learn new things” (Question 38, Table A-1); 43% were neutral or unsure. Mentor ratings varied moderately by the amount of time logged by mentees (tau c = 0.28, NS). Figure 5 shows a marked increase in level of agreement among mentors whose mentees logged above 300 minutes. Fewer mentors with Senior mentees agreed (21%), than those with mentees in the Junior (35%) or original (34%) streams (Cramer’s V = 0.30, NS).

Program monitoring statistics on the numbers of words and posts written by mentors and mentees offers another indication of reciprocity in terms of balance of participation within each pair. Mentors



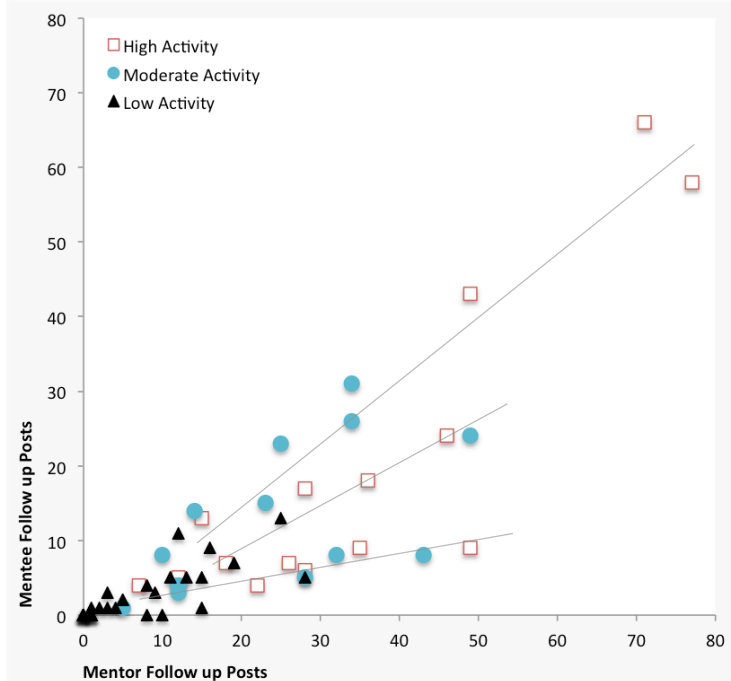
consistently wrote more than their mentees (over twice as many words, on average, in the high activity group). Given that it is the mentors' role to respond to mentee's comments and questions in some detail, this is not necessarily contrary to reciprocity in a relationship. In light of this, the balance between mentor and mentee follow up posts seems to be a more valid indicator of reciprocity. The vast majority (96%) of the first posts made to an activity (initiation posts) were written by mentees, while mentors wrote the majority (66%) of follow-up posts. Mentees responded to approximately half of the follow-up posts written by mentors. This rate is consistent within the conversation sample; mentors tended to only initiate conversation on an activity if their mentee had been inactive for a period of time, or if they had missed an activity.

Figure 6 shows that the degree of reciprocity within pairs corresponds loosely with the activity levels of mentees. The distribution suggests that pairs can be categorized into three rough groupings: low reciprocity pairs, in which the mentors received infrequent follow-up responses from their mentees; moderate reciprocity, in which mentors received occasional follow-up messages; and, high reciprocity, in which mentors and mentees more consistently responded to each other's posts.

The conversation analysis evaluated transcripts for the general tone and depth of discussion, as well as practices that are indicative of reciprocity, such as interest, attentiveness, and encouragement to

continue the conversation. In this vein, it was common for mentors and mentees to reiterate or expand upon each other's comments and questions (105 references within 9 pairs), in many cases with a relevant story (77 references within 8 pairs) and/or follow-up questions (95 references within 9 pairs). No instances of outwardly disruptive communication, such as judgmental or negative comments about the other, were found in the conversation sample. This finding is corroborated by the mentor survey results; 75% of mentors disagreed with the statement, "my mentee and I are often in conflict with one

Figure 6. Scatterplot of follow-up posts written by mentors and mentees, by activity group, 2013/14



another". The most disruptive occurrences within the conversations were failures by mentees or mentors to respond to each other.⁹

The frequency of reciprocal and disruptive practices varied by the activity level of the pair, with more instances of reciprocity in the high activity group. Mentees and mentors in the low activity group generally wrote brief posts and shared minimal personal information.

I found that the word's [in the word cloud] that stood out to me the most were the one's in larger font .. aside from the other's. :) [Senior mentee, Pair 3]

I like doing that too, I also prefer visual learning where I do lots of highlighting because the colour does attract me :) [Mentor, Pair 1]

Pairs in this group were also relatively unresponsive. Mentees responded to fewer than five of their mentor's posts, and two of the three mentors did not respond to more than 10 of their mentee's posts.

Interactions within the moderate activity group were mixed. Three of the mentees' posts tended to be brief, while the others wrote in a bit more detail. Two of the mentees shared personal stories and expressed affinity with their mentors, while the other two conversations had a more impersonal tone.

what kind of doctor do you want to be i want to be a carpenter [Senior mentee, Pair 7]

I'm scared but always very much looking forward to my future and seeing how my mentor has a occupation near what i would like to pursue, it makes me that much more interested in talking with her. I feel i can connect well with her because we both adore children. By talking about this with my mentor it will help me get more ready for the real world after high school and hopefully help me be more comfortable with my choice of job. [Senior mentee, Pair 6]

In terms of responsiveness, two mentees in the moderate group responded to over 20 of their mentors' posts, while the other two responded fewer than 5 times. Mentor responsiveness was also mixed; two did not respond to more than 10 of the mentee's posts, and the other three missed 3 or less.

Finally, the high activity pairs tended to be much more interactive, and shared more personal information in both directions.

It's cool that you're interested in video games. I was told by a respirologist (lung doctor) that he could really tell which of his junior doctors play video games ... because they are way BETTER at doing procedures where they put a tiny camera down into the lungs... [Mentor, Pair 12]

Senior Mentee, Pair 10: I know that i'm Metis but I don't have a status card or anything and my dad doesn't either ... We could if we took the time ... and all so i'm not sure if that would make me eligible.

Mentor: I completely understand, I actually didn't get my citizenship card until the end of high school ... and it was a pretty involved process. In the end it was really worth it though, I have gotten so much funding, scholarships and support in university because I confirmed my Métis status! ...

⁹ Posts were coded as not having been responded to when: a mentor did not respond to their mentee's initiation post; a mentor did not respond to questions in their mentee's follow-up post; or, a mentee did not respond to questions in their mentor's post.

maybe in the summer ... you could talk to your dad about contacting MNBC (Metis Nation BC) and getting a citizenship card for both of you. ...

Senior Mentee, Pair 11: what do you do on your spare time? do you actually have spare time? were you on any teams or in clubs in high school? did they help you in the future?

Mentor: To answer your questions.. 1. In my spare time I love to read, do art, and spend time with my family. I am looking for new volunteer opportunities to get involved with. You've actually inspired me to get involved with something like you do! ...

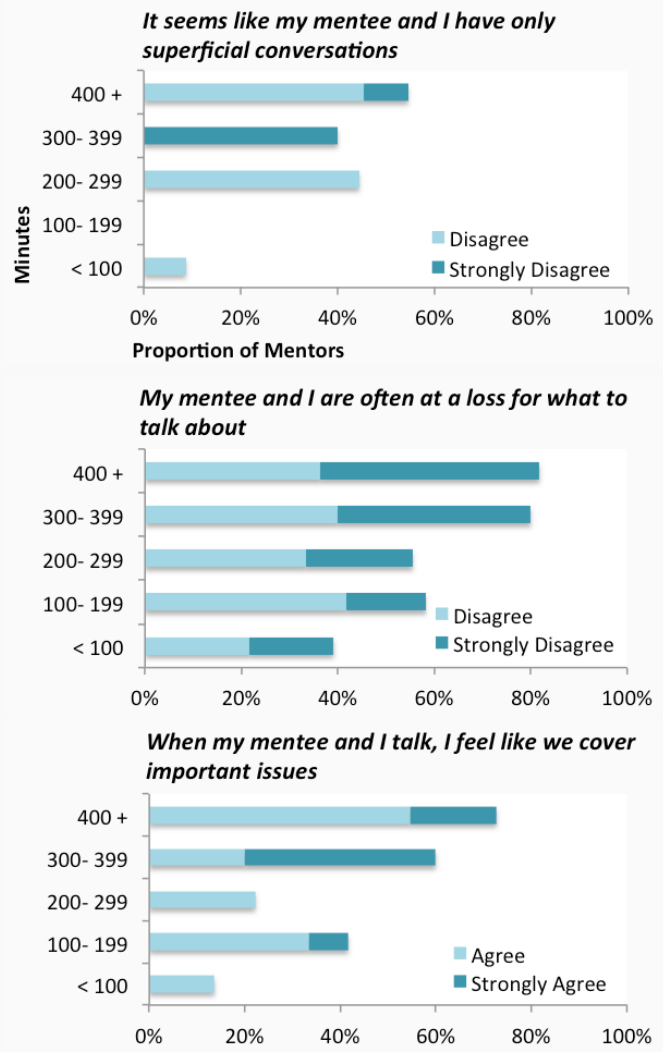
Two of the high activity pairs were particularly consistent in responding to each other's posts. The other two responded regularly, but less consistently; the mentees left almost 20 of their mentors' posts unanswered; and, the mentors missed 6 and 12 of their mentees' posts, respectively.

Depth of conversation. The results of the mentor surveys and conversation analysis indicate that pairs are more likely to have in-depth conversations as they spend more time on the Quest. Three measures from the mentor surveys were used as indicators of conversation depth – perceived superficiality of conversation, ease of finding discussion topics, and the importance of issues discussed.

About half of mentors (47%) agreed with the statement, "it seems like my mentee and I have only superficial conversations," (Question 5, Table A-1). There is a strong, significant relationship between mentor agreement and time logged by mentees ($\tau c = 0.37, p < 0.001$). As shown in Figure 7, disagreement increased significantly once mentees had logged 200 minutes or more. A greater proportion of mentors with mentees in the Junior and Senior streams (29% and 28%, respectively) disagreed with the statement, than those in the original Quest (17%) (Cramer's $V = 0.26, NS$).

Overall, it appears that Personal Quest activities provide a satisfactory starting point

Figure 7. Proportion of mentors in disagreement with statements, by minutes logged by mentees



for conversation; over half (57%) of mentors disagreed with the statement, “my mentee and I are often at a loss for what to talk about,” (Question 12, Table A-1). There is a strong relationship between mentor agreement rating and mentee activity level ($\tau c = 0.30$, NS). Figure 7 shows that as the time logged by mentees increases, the proportion of mentors in disagreement increases relatively steadily; there is a notable increase in strong agreement among mentors whose mentees logged above 300 minutes. Mentor disagreement with this statement was high across Quest streams (Cramer’s $V = 0.32$, NS).

Around one-third (36%) of mentors agreed with the statement, “when my mentee and I talk, I feel like we cover important issues,” (Question 39, Table A-1). There is a strong relationship between mentor agreement and mentee time logged ($\tau c = 0.32$, NS). Figure 7 shows a large increase in the proportion of mentors in agreement above 300 minutes. A greater proportion of mentors with mentees in the Junior stream (59%) and the original Quest (59%) agreed with the statement, than those with Senior mentees (50%) (Cramer’s $V = 0.29$, NS). This is likely reflective of the relatively small number of Senior mentees who progressed beyond the first unit of the Quest (Question c-ii, p.41).

The conversation analysis also corroborates the survey results that pairs in which the mentee logged over 300 minutes were more likely to have meaningful, in-depth conversations. The majority of exchanges in the low and moderate activity groups stuck primarily to surface-level details.

Junior Mentee, Pair 4: i am fary un oganized to keep it and my desk klen lol ...

Mentor: Hmm, I can be very disorganized myself (to be honest). Every 1 or 2 weeks I have to clean out my whole room and throw away all the scrap pieces of paper on my desk. That seems to work... until it gets messy again! Lol

Mentee: ha! ha! lol ... the only thing klen at school is my locker :) :)

Mentor: That's great! Some people's lockers are horrendous! hehe. =) I'm glad your locker is clean. How does that make you feel? Do you do anything special to try and keep your locker clean?

Mentee: my mom checks it

In contrast, pairs in the high activity group tended to go into more detail, and expanded well beyond the scope of the questions in the Quest. The most active pairs engaged in real talk related primarily to personal and cultural issues, such as learning strategies and Aboriginal identity.

Junior Mentee, Pair 9: I'm a kinesthetic learner, I like hands on. I like when we do science experiments in class to see what happens and what it looks like. Also a visual learner because i copy the notes down from the board most of the time. And I'm a reader.

Mentor: That is a really good thing to learn about yourself! Particularly as you get into high school and college there's a lot more exams and independent learning and it's important to know what works best for you. ... I scored pretty evenly on all four types of learning (although kinesthetic and read/write were my top two) ... That sounds about right since I've found that the way I learn really varies based on what I'm trying to learn.

Mentee: Ya same for me but the ones I told you are my top one... like I only copy notes if the teacher is writing something I need to copy down :-)

Mentor: It's good that you've already figured this out about yourself! ... Have you ever tried anything kinesthetic? One thing I often do is chew gum while I study and then during exams I also do. Something about the habit and being familiar with the feeling helps me focus as well as stay calm during the exam if I'm nervous.

Mentor, Pair 11: We have talked about balance in other posts and one of the biggest aspects of my life that I struggle with balancing is with my mixed heritage. Do you ever struggle with this?

Senior mentee: when it comes to heritage and culture, i struggle a lot, my family isn't proud to be aboriginal and i don't talk to my biological father whose [nationality] so its hard to know where i come from on both parts. ...

Mentor: I know all too well how that feels. My [mom's side of the] family is in complete denial. It's basically myself and my mom who identify with our [Aboriginal] heritage. ... My dad was the only one in his family to leave [country]. He ... never made an effort to teach anything about the culture... Having finally went as an adult to [country] I now feel that I can explore the culture on my own terms and decide what I want to embrace. ...

Mentee: I really liked the way you worded that ... it hits exact spot of exploring it on your terms, and exploring what your comfortable with

Mentor: Exactly and I think the great part of being mixed is that we have so much opportunity to celebrate different parts of our heritage and history. ... We can appreciate all parts of our cultures.

Staff and partner observations confirm that there was a wide variation in conversation depth, ranging from one-word answers to long paragraphs with expansive sharing.

I read some of those conversations. The mentors would ask ... questions about interests ... some were making connections with their mentee with respect to the sports they played, and those kinds of things. And the engagement in reference to the activities ... [Teacher-advocate, Oct 2014]

Some kids, it was hard for [me to get] them to get to say more than one word. There was one [mentee] ... she was like a rock star. She was writing back and forth, like, these giant paragraphs to her mentor, and it was cool. Hers out of all the elementary kids would have been the highest quality of mentee-mentor relationship, I think. I don't know if her mentor could have kept up with her. [Community Lead, Oct 2014]

b-ii. Does the Personal Quest reflect a belief system that inspires growth, emphasizes strengths and focuses beyond the self?

The content analysis of the Personal Quest units and conversation transcripts indicate that the Quest is consistent with an empowering belief system. The Quest maintains an equal balance between instrumentally- and developmentally-focused activities (88 and 90 references, respectively, were identified in the content analysis); it also takes a consistently positive angle on personal experiences, accomplishments and areas for improvement and learning. In addition, the units are intertwined with the themes of Aboriginal culture, relationships with others, contributing to community, and addressing common challenges.

Thirty-three references to strengths-based language and activities were identified in the Junior and Senior Quest. Themes within the Quest include: recognizing, celebrating and building on accomplishments; fulfilling responsibilities to others and contributing to community; identifying new areas of learning and growth; and, leveraging strengths and skills to achieve goals.

Just like everyone has a strengths and accomplishments, we all have areas we can learn and grow. Tell your mentor about something you have done that you are proud of, and something new you would like to try to learn more about. [Junior Unit 1, Activity 1]

Watch the video Résumés 101: Accomplishment Statements ... Open your document with the list of your accomplishments ... Change two of the items to become accomplishment statements. Share those statements with your mentor ... Did you find this task difficult or easy to do? If you have difficulty creating your statements, your mentor can give you advice on how to change them. [Senior Unit 5, Activity 1]

The Quest also includes many examples of Aboriginal role models who have attended post-secondary, received awards or been influential in their community.

All of the mentees in the conversation sample engaged in some form of positive self-reflection. There were 23 references in the conversations (within 12 pairs) coded as self-identifications of personal strengths. Some typical examples include:

1. I am humorous. 2. I am creative. 3. I am respectful. :) [Senior mentee, Pair 3]

I am good at cheerleading, in school i am good at keeping organized with my work. [Senior mentee, Pair 6]

the three things about myself that are positive are that I'm creative ... i come up with my own ideas with new cooking ideas. ... i am very kind to other people. I also am resilient because i have gone very hard time in my life ... and i keep moving on no matter what life brings me. i always think positive on what life throws at me. [Senior mentee, Pair 8]

While community strengths did not emerge as a theme in coding, some pairs discussed themes that recognized the strengths of Aboriginal communities, such as the Idle No More movement (24) and on-campus indigenous associations.

That's great that you're learning about the Longhouse! The Longhouse is such a great resource and cultural hub for Indigenous students at UBC, and also very welcoming!! I spend a lot of time there haha... [Mentor, Pair 10]

Fifty activities within the Junior and Senior Quests were coded as “*focused beyond the self.*” Related themes in this vein included: Aboriginal culture and community; being involved and helping others; leveraging community resources, and the connections and experience of allies; and, recognizing and responding to shared challenges, such as racism and bullying.

Allies are people you can talk to and who make time to listen to you. One of the best ways to deal with the challenges in your everyday life is to have allies. These allies could be your family, friends, guardians, elders or community members such as doctors, teachers, school support staff or

teammates. Who are your allies? ... make sure you think about all the different places you have allies (i.e. school AND home AND community). [**Junior Unit 2, Activity 3; Senior Unit 2, Activity 3**]

In the past, Aboriginal people were not offered the same opportunities for education as other Canadians. The residential school system is a dark part of Canada's history ... Many of our family members may have attended these schools. Now, we are getting the chance to heal through the Truth and Reconciliation hearings. Today, Aboriginal people have many opportunities, and education is one of those options. Listen to Professor Suzanne Stewart speak about the importance of education. How do you think education can help Aboriginal people? Tell your mentor two ways education is positive for you and your community... [**Senior Unit 6, Activity 3**]

The large majority of pairs in the conversation sample discussed themes related to their place within their community. There were eighty-one references (within 10 pairs) related to one's place within community, primarily in the context of family, culture and extracurricular activities. Other common themes included: relationships with others outside of family (50 references within 9 pairs); personal stories about culture and background (52 references within 7 pairs); and, bullying and racism as a common experience (26 references within 10 pairs). Pairs in the low activity group tended to focus on relatively superficial details regarding family relationships, responsibilities, and extracurricular activities.

I would say the biggest influential person in [my] life would be my mother. [**Senior mentee, Pair 3**]

Pairs in the moderate and high activity groups typically had more varied and expansive discussion related to their relationships with peers and teachers; their place in school; their involvement in cultural activities; volunteering and paid work; and, personal experiences of bullying and discrimination.

My peers are my role models. Many of them are really excited to go to college/university and i would like to have that type of excitement too. [**Senior mentee, Pair 6**]

when i come to [high school] i might find some allies in the aboriginal room. [**Junior mentee, Pair 12**]

... I love that you say that we all have stories and teachings we can learn from. I find that I learn the most from those that are younger than me ... I look at how they cope with... challenges and it makes me realize that I have learned from my own challenges and can offer some guidance. It sounds like you see things in a similar way. [**Mentor, Pair 11**]

By accident one time i posted a picture of me and my friend doing funny faces ... and she told me to delete it because she didn't like it ... then after people started commenting on the photo and she got her feelings hurt. ... I should've deleted the photo in the first place. [**Senior mentee, Pair 6**]

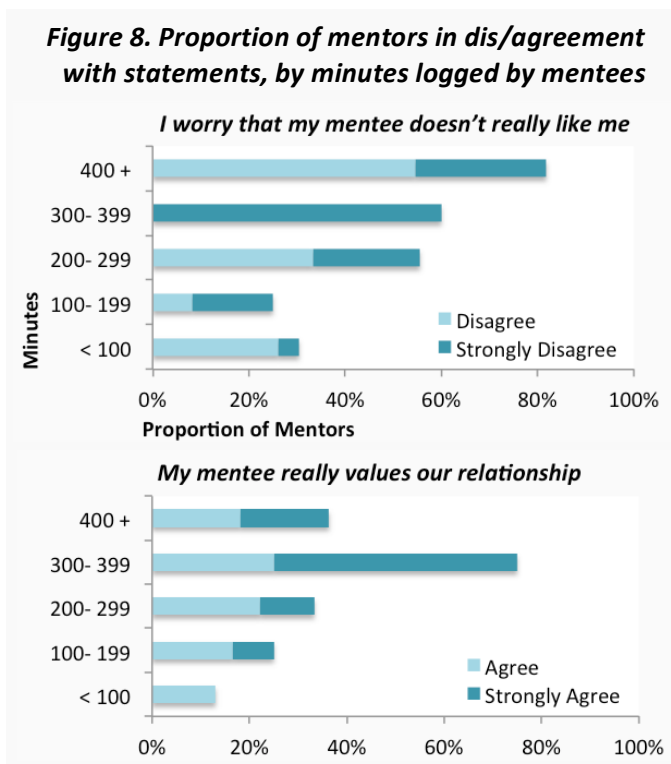
C. Mentor-Mentee Relationships

c-i. Have mentor-mentee pairs achieved mutuality?

The overall results from the surveys and conversation analysis indicate that many pairs have not achieved mutuality. However, as mentees logged more time in the Personal Quest, the indicators – feelings of closeness and caring, and quantity and quality of storytelling – become more prevalent

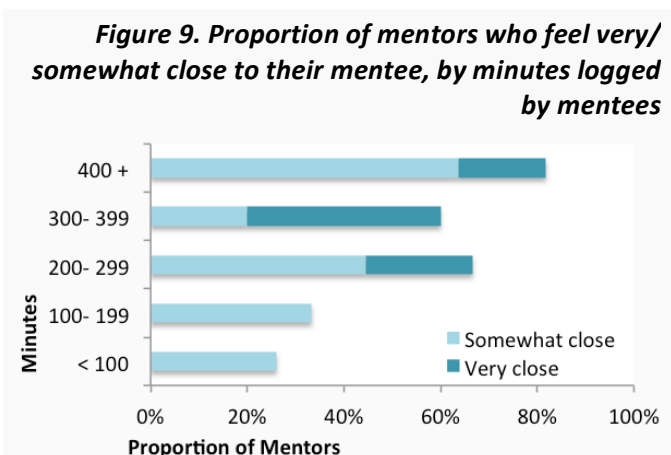
among pairs. This is consistent with the literature, which indicates that it takes time to build the trust necessary for mutuality.

Closeness. The results of the mentor timepoint surveys indicate that feelings of closeness relate strongly to mentee activity level. Around half (45%) of mentors disagreed with the statement, “*I worry that my mentee doesn’t really like me*” (Question 3, Table A-1). Mentor ratings vary strongly by mentee log time ($\tau c = 0.34$, NS). **Figure 8** shows that the proportion of mentors who disagree with this statement increases fairly steadily after mentees have logged more than 200 minutes. Over half (53%) of mentors with mentees in the Junior stream disagreed, compared to 43% in the Senior stream and 41% in the original Quest (Cramer’s $V = 0.31$, NS).



One-quarter of mentors (27%) agreed with the statement, “my mentee really values our relationship” (Question 4, Table A-1). Mentor ratings vary moderately by mentee log time ($\tau c = 0.29$, NS). **Figure 8** shows that there was not a strong trend in agreement levels, but that around 75% of mentors whose mentees logged between 300 and 400 minutes agreed with this statement. A greater proportion of mentors with mentees in the Junior stream (38%) agree with the statement, compared to 21% in the Senior stream and 24% in the original Quest (Cramer’s $V = 0.22$, NS).

Just under half of mentors (47%) reported feeling “somewhat” or “very” close to their mentees (Question 49, Table A-1). **Figure 9** shows that there is a strong relationship between perceived closeness and mentee activity level; over 60% of mentors whose mentees logged more than 200 minutes felt some degree of closeness in the relationship ($\tau c = 0.39$, $p < 0.01$). Overall feelings of



closeness are slightly higher for mentors with mentees in the Junior stream - 18% reported feeling “very close” to their mentees, compared to 7% of those in the Senior and original Quests (Cramer’s V = 0.13, NS).

The interviews with community partners indicate that some of the mentees developed a close relationship with their mentors. There was a sense that Junior mentees were more likely to feel a stronger connection with their mentors than Senior mentees.

I read some of those conversations. ... I think there was an attempt to establish some sort of an authentic relationship, but ... I never heard any of the [high school] kids talk about their mentors. A couple students from the elementary school during the sessions did. [Teacher-advocate, Oct 2014]

One teacher-advocate felt that the personal connections made through the program were more valuable than the content of the Personal Quest.

To be honest, I think they were more interested in the connections with each other and their mentor than the programming itself. The students were really excited that their mentor was in university, it almost gave the mentors celebrity status. [Teacher-advocate, District Lead Report]

It must have been [engaging], or they wouldn’t [do it] ... they enjoyed the videos... [and] the word cloud... there were times when two different girls ... would tell me about their mentor ... So, they were interested in the fact that they were talking to someone who was in school and university, because these were kids that knew they wanted to go. [Teacher-advocate, Nov 2014]

The interviews offered a reminder of the importance of time in developing trust and reciprocity. A First Nations teacher-advocate whose class started later in the year indicated that her students did not have sufficient time to develop a connection with their mentors, or gain observable benefits from the program.

... we never had enough time for them to talk much at all. One of the girls, I think she might have been in contact with her mentor 5 or 6 times... probably at the most, maybe even less. I think, with her in particular, and a couple of others, it would have been a really, really good thing. [Teacher-advocate, Nov 2014]

Sharing and Storytelling. The conversation analysis confirms that pairs in the high activity group were able to achieve a greater sense of mutuality; these pairs shared a significantly greater number of stories with each other (257 references), than those in the moderate and low groups (52 and 21 references, respectively). Mentors and mentees in the high activity group were also more likely to share intimate details of their lives, though some in the moderate and low groups also shared personal stories. Pairs in the conversation sample shared ideas and stories related to a variety of topics, including personal interests (98 references within 12 pairs); school and study habits (80 references within 9 pairs); family (53 references in 10 pairs); relationships with others (50 references in 8 pairs); and, culture or background (52 references in 6 pairs), among other topics.

I also have cheer leaded for 7 years. this year i took a break though.. because it can get VERY stressful. i focused more on racecar driving this year. I also am working on restoring a 1963 Volkswagen Beetle with my dad! :D It's going really well and i love learning new things about cars! [Senior mentee, Pair 6]

Yeah, well there is no reason why i want to be a chef ... uhh i love to cook because it reminds me of when i was little n my mom n brothers always cooked, so i guess i would have to say im cooking for my mom to keep her in my memories. [Senior mentee, Pair 8]

I smudge two times a day at this point because there seems to be so much going on with my life and I'm not living at home right now, so every morning i just thank not just the creator but all my supports around me for wanting ... to keep trying and to hold my head high. then at night i smudge before i sleep just noticing how we take life and the things around us for granted. ... [Senior mentee, Pair 11]

My parents are both doctors but ... I really Did Not want to be a doctor, because I saw how hard their lifestyles were. ... Medicine isn't a typical 9-5 job for the most part ... I went to university to study health sciences and society hoping to become a health lawyer or an international worker to improve the health of people in third world countries.... But I realized in my 2nd year of university that I wanted a job where I got to work directly with people every day ... So I ... decided to go into medicine and I have never looked back... I think it's one of the most incredible honours to be able to take care of people... [Mentor, Pair 9]

Mentors and mentees gave a variety of indications of caring in their posts, such as interest, admiration and encouragement. Most conveyed interest in hearing back from each other, whether in response to a specific question or idea, or events in each other's lives (36 references within 10 pairs).

I'm most interested in talking about My Mentor's Cultural background. [Senior mentee, Pair 3]

Also, these are just activities to get you thinking about all the ways that we can think about our lives and how we live, study, what we would want to do in school, and so on. But you can always suggest an idea or ask questions along the way--even if it has nothing to do with these exact activities. Okay? =) [Mentor, Pair 4]

It would be great to hear what kind of things you're interested in talking about, and the sorts of goals you would like to achieve this year. I know it can be hard to think and write about things like what job you want to have in the future, when I was in high school I had no idea what I wanted to do! [Mentor, Pair 10]

... let me know how volunteering and applying for jobs goes for you! [Mentor, Pair 10]

Many pairs offered encouragement specifically related to each other's goals (44 references, 6 pairs). Instances of encouragement typically originated from mentors, but some mentees in the high activity group also offered encouragement to their mentors.

sounds like you've done some research. actually sounds like a pretty cool program! I bet if you contacted them they would be happy to answer more questions ... [Mentor, Pair 12]

I think your goal to have a positive outlook on life is pretty much one of the most important things... It's awesome that you're setting goals for yourself in school too, I found that was one of the best ways

to motivate myself when I was in high school...especially asking for help, which can be a drag to do but has such a big payoff! [Mentor, Pair 10]

its really awesome that you're learning about your culture and where you're from. I think that some adults feel that it's always too late to learn about where you're from, so it's really amazing seeing you take that on as a goal for yourself. [Senior mentee, Pair 11]

Mentors also offered compliments (39 references within 6 pairs) and expressions of appreciation (12 references within 2 pairs) to their mentees. These statements tended to be more personal in the moderate and high activity groups, and a few mentees returned the sentiments to their mentors.

[Mentee], you have been working very hard--and it shows; sometimes we may miss a question, but as long as we see it and finish it--that's ok =) Thank you for a hard work on the activities. [Mentor, Pair 4]

Sounds like your life is very full, and you're spending your time doing some awesome stuff! [Mentor, Pair 10]

I have complete faith in you and know you will succeed. ... You're strong, resilient and you're making positive changes in your life so that you can be the best version of YOU. You should be so proud of yourself. And I mean that in the most sincere way possible. [Mentor, Pair 11]

Some mentors also offered assistance to their mentees in the form of connections or support (12 references, 4 pairs).

I can be your ally through e-mentoring! You can send me an email anytime. [Mentor, Pair 1]

I have friends who have had all those jobs you mentioned, so if you have questions let me know. [Mentor, Pair 12]

Finally, a few mentors expressed concern for their mentee's experience within the program, or with challenging situations in their lives (6 references within 5 pairs).

I am so sorry that you had to deal with this [bullying] incident, it must have been so frustrating to have people sink to such a low level to be mean. You are so much better than that! If something like this continues, you should contact an adult in your community, because it is a serious issue and needs to stop right away. [Mentor, Pair 10]

c-ii. How actively do mentors and mentees participate in the program?

Participation levels in the program varied widely, from mentees who logged in once, to those who spent hundreds of minutes on the Personal Quest. In the first two years of the program, less than half of registered mentees were active on a regular basis. In 2013/14, mentee activity increased significantly in terms of minutes logged, retention rates, and progress in the Personal Quest. This is encouraging, given that the literature suggests that around 40% of e-mentoring pairs can be expected to fail, and even active pairs are prone to progressively decreasing activity levels (46:p.219). The results for the Junior stream, in particular, exceed these expectations.

Minutes logged. Both mentee and mentor activity levels increased significantly from 2012/13 to 2013/14. The total minutes logged by all mentees increased nearly four-fold, from 3,800 minutes to

14,700 minutes in 2013/14 (6,200 by Senior mentees, and 8,500 by Junior mentees). Figure 10 shows that mentees in the Junior stream logged more than double the average number of minutes than their peers in the Senior stream and Original Quest. Mentors logged 70% more minutes in 2013/14 than in the previous year; an increase from around 5,200 to 8,900 minutes. Overall, the average number of minutes logged by mentors doubled in 2013/14.

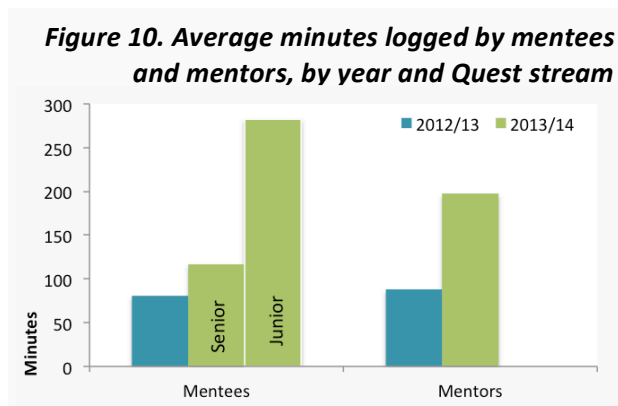
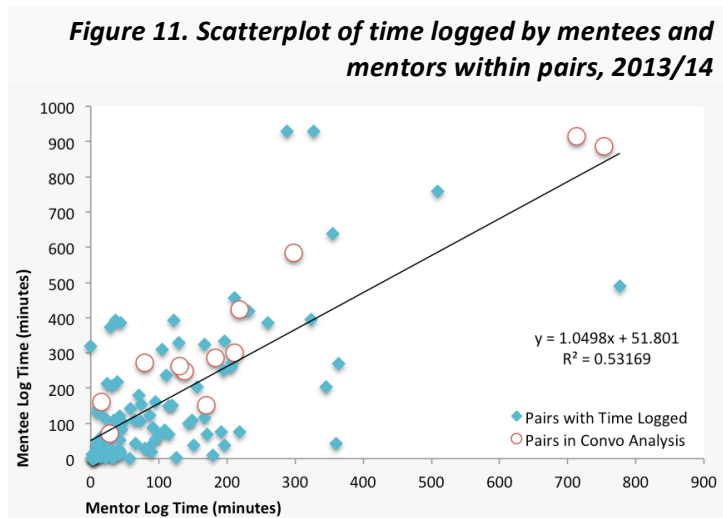


Figure 11 and Table 4 show that there is a strong, significant relationship ($R = 0.73$, $p=0.005$) between the number of minutes logged by mentees and mentors in each pair. This relationship is stronger for the new Quest than for the original Quest. The direction of this relationship cannot be confirmed with the data, though it is



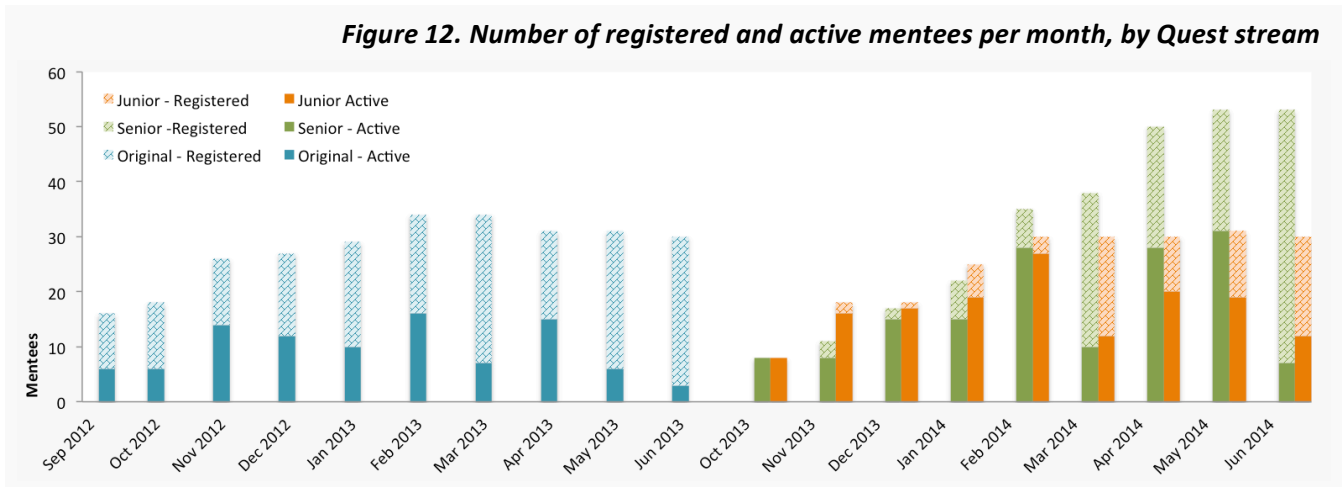
reasonable to infer that there is a feedback loop between mentee and mentor activity. The increase in mentee activity in 2013/14 likely spurred mentors to spend more time writing responses, which in turn increased mentees motivation to work on the Quest, and so on.

Table 4. Mentee-mentor pair log time regression (mentee log time, dependent variable)

	R	R ²	Unst. Coefficient		t	Sig.
			B	Std. Error		
Total	0.73	0.53	51.86	18.23	2.84	0.005
Original Quest (2012/13)	0.59	0.35	40.23	35.54	1.13	0.265
New Quest (2013/14)	0.82	0.67	58.7	19.09	3.08	0.003
Junior Stream	0.85	0.72	18.1	19	0.95	0.347
Senior Stream	0.78	0.61	141.28	36.77	3.84	0.001

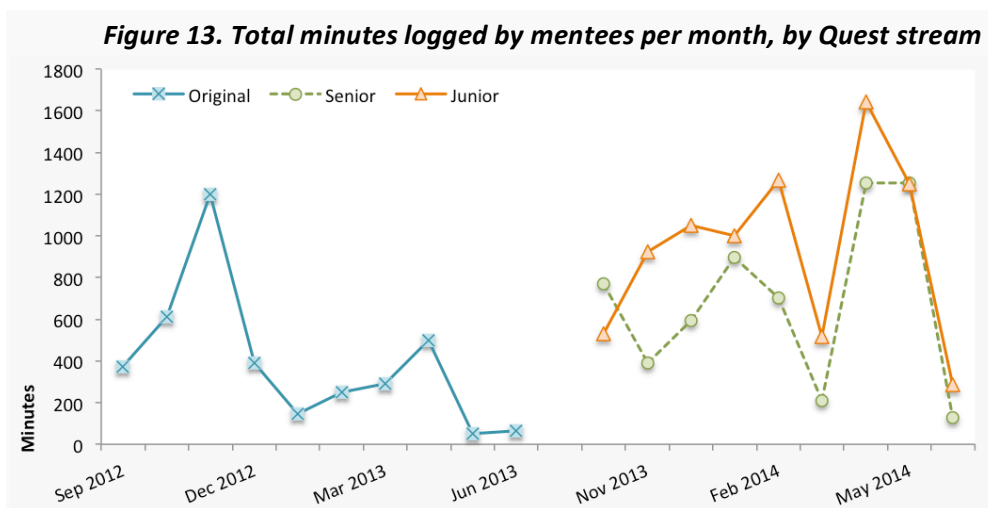
The mentor timepoint survey results indicate that the majority of mentors (75%) had hoped that their mentees would be more active. As expected, mentors are more likely to disagree with the statement, “I wish my mentee would be more active on icouldbe.org” (Question 34, Table A-1), as their mentees log more time on the Quest ($\tau c = 0.4$, NS). About 40% of mentors whose mentees logged more than 300 minutes disagreed with the statement.

Retention rates. Mentees were also more consistently active on a monthly basis in 2013/14. Figure 12 shows that between 10 and 54 percent of mentees were active each month in 2012/13. In 2013/14, more than half of mentees were active in a typical month; the proportion of active mentees ranged between 13 and 100 percent per month in the Senior stream, and between 40 and 100 percent for the Junior stream.



The overall activity level of mentees is tied to the number of months they were active on icouldbe.org. Junior mentees in the high activity group were active an average of 6.5 months – compared to 5 months for the moderate activity group, and 3 months for the low activity group. Among Senior mentees, the high activity group was active an average of 5 months, compared to 3 months for the moderate group and 2.5 months for the low group.¹⁰

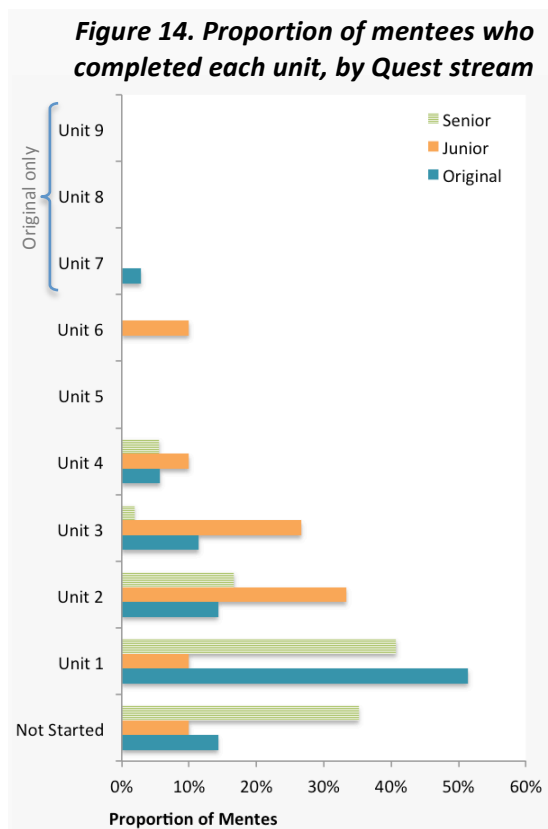
The pattern of overall monthly activity also differed between the two school years. **Figure 13** shows that the total minutes logged by all mentees in 2012/13 dropped sharply after peaking in November,



¹⁰ The trend for the Senior mentees is skewed by a group of 15 mentees that joined the program in April 2015.

with a slight recovery in April that was not sustained. Monthly activity levels in 2013/14 remained higher overall; Junior mentee activity levels rose steadily, and recovered strongly after a drop in March that corresponded with Spring break. Senior mentees were less consistent, but drops in activity were followed by relatively strong recovery. Activity levels for both streams dropped sharply with the initiation of the BC teachers' strike in June 2014.

Personal Quest progress. Mentees in the Junior stream also outperformed their counterparts in terms of their progress in the Personal Quest. As shown in Figure 14, four-in-five Junior mentees moved beyond the first unit, and 10% (3 mentees) made it to the last unit in the new Quest (unit 6). Just 10% of Junior mentees did not start the Quest after creating their account on icouldbe.org. Comparatively, 14% of mentees in the Original Quest, and 35% of those in the Senior stream, did not start the Quest. Only 31% of Original mentees and 24% of Senior mentees moved beyond the first unit, and none of them made it to the last unit of the Quest. The delay in launching the new Quest may have limited the progress of some mentees; the 16 mentees (9 in Senior stream, 7 in Junior stream) in 2013/14 who worked on the original Quest before moving to the new Quest could potentially have progressed further if they had not had to make the transition.



c-iii. Are the relationship dynamics in mentor-mentee pairs conducive to empowerment?

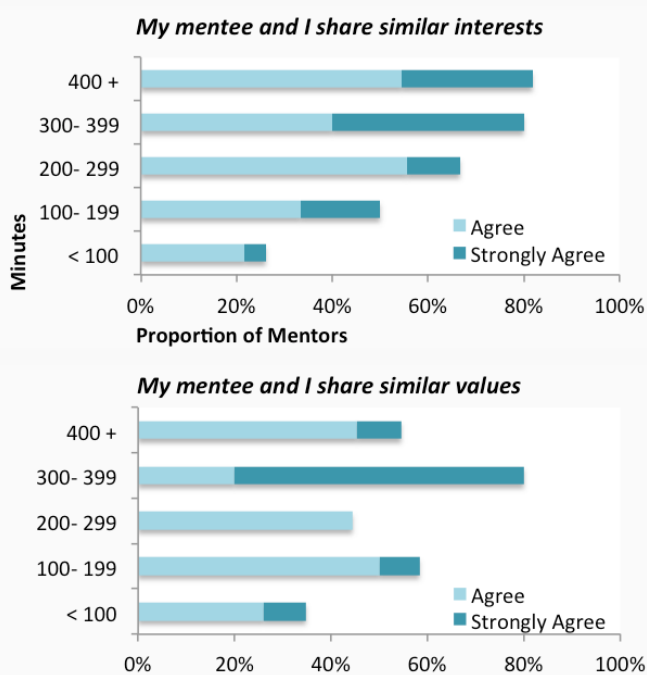
Results from the mentor timepoint surveys and conversation transcripts suggest that mentor-mentee pairs who log more time on the Quest are more likely to show indicators of a relationship dynamic conducive to empowerment. This includes shared interests and values, a friendly and supportive communication style, and a more equal balance of power.

Shared Interests and values. The mentor survey results indicate that many mentors feel that they share similar interests and values with their mentees. This varies somewhat by the activity levels of their mentees. Over half (52%) of mentors agreed with the statement, “my mentee and I share similar interests” (Question 8, Table A-1). Figure 15 shows that the proportion of mentors in agreement with this statement increases fairly steadily as mentees log more time (tau c = 0.41, NS). Over half (58%) of

mentors with mentees in the Junior stream agreed with the statement, compared to half of those with mentees in the Senior stream and original Quest (50% and 48%, respectively) (Cramer’s V = 0.249, NS).

Around half of mentees (48%) agreed with the statement, “my mentee and I share similar values” (Question 18, Table A-1), and half (50%) were either neutral or uncertain. This likely stems from the fact that participants may not express values explicitly, or some pairs may not have progressed to the more value-based Quest activities. There is a moderate relationship between mentors’ perceived similarity of values and mentee activity level (tau c = 0.23, NS). Figure 15 shows that there is not a clear trend as mentee log time increases; though there was a spike in agreement for the 300 to 399 minute group.

Figure 15. Proportion of mentors in disagreement with statements, by minutes logged by mentees



One third (35%) of mentors with Senior mentees were in agreement, compared to around half of those with mentees in the Junior stream or original Quest (53% and 52%, respectively) (Cramer’s V = 0.28, NS).

Communication style. The relationship dynamics in the conversation sample varied considerably across the three activity levels. As expected, the pairs in the high activity group tended to have better rapport, and seemed to form more meaningful relationships. All of the pairs in the sample used a largely informal communication style; their exchanges varied more in terms of overall tone. The tone of conversation among the more active pairs was typically more friendly and enthusiastic, whereas either one or both of the partners in the less active pairs used a more “neutral” tone.

Most participants (primarily mentors) made use of textual techniques to personalize their conversations, including: using emoticons and shorthand (☺ or “LOL”) to represent emotion or humor (12 of 13 pairs); using emotive language to communicate their interest in each other’s posts (e.g. “wow!” “Great!”) (12 pairs); using selective caps lock and creative spelling to capture tone of voice in their messages (e.g. “that is AMAAAZING!”) (5 pairs); directly addressing the other by their name or username (5 mentors and 1 mentee); and, using written representations of sounds to represent emotions and actions, such as excitement (e.g. “Eeeeeee!”) or thinking (“hmmm” or “uh”) (5 pairs).

Balance of power. The conversation analysis suggests that the high activity pairs approached their relationships as more of a partnership. There is a tendency for mentors to take a “teacher” role as the near-peer with more experience to draw on. However, some mentees in the sample did make efforts to support mentees in developing greater self-sufficiency and positive self-concepts. Five mentors – primarily in the high activity group – offered tips and tools for mentees to find solutions to a problem or improve their skills (14 references). These related to: improving skills; leveraging learning styles; time management; plagiarism; in-school support systems; post-secondary pre-requisites; scholarships and bursaries; dealing with discrimination; and, finding allies.

if you ever feel like you need more people to talk with about problems or conflicts that you're having, there are support systems at your school so that you can go to counselor's who can help you work things out, and those things will stay completely confidential. [Mentor, Pair 10]

sounds like you're not sure what technique might work best for you. ... you might not need a written calendar now, but once you have more than three or four things happening per week it is really helpful to start using a little written or electronic calendar. I didn't really start doing this until grade ten or eleven, but wish I had started a bit earlier! ... [Mentor, Pair 12]

Finally, 34 references to supportive comments – aimed at improving or reinforcing the other’s self-concept – were found in the conversation sample. Mentors in the high activity group made the majority of these comments; none were identified in the low activity group.

It's when we give other people the right to tell us how we should feel--that's when bullying can happen. We need to keep strong inside our thoughts, and remind ourselves how special each one of us are. ... And only each person should be in charge of their own feelings. No one should have the right to make another person feel down about themselves. What do you think about this? ... [Mentor, Pair 4]

It sounds like you are really smart and capable if you are enjoying so many of your courses :) Still, if there's anything in particular that is challenging you in your courses and you want to get your grades up, let me know and I may have some helpful advice! [Mentor, Pair 10]

Two mentees in the high activity group reciprocated with supportive messages to their mentors.

You my dear have a gift for words. actually made me tear a bit there. Thanks so much, its odd how we never met but i just feel so connected and i feel you are like a little electronic diarie. that gives me this awesome advise [Senior mentee, Pair 11]

D. Outcomes

d-i. Have mentees experienced empowering instrumental outcomes?

The results of the conversation analysis and interviews suggest that some mentees did experience positive instrumental outcomes from participating in the eMentoring program. This includes: gaining new information and resources from the Quest activities and their mentor; exploring career and education options; and, discussing and setting goals. Mentees in the high activity group were more likely to engage in conversations with their mentor that could facilitate these types of outcomes.

Information and resources. Five mentees in the high and moderate activity groups within the conversation sample specifically mentioned having learned from the Personal Quest. The topics they mentioned included: Internet basics (e.g. Boolean search, data storage, online tools, safety); binder organization; career options; saving money; and, student loans and bursaries.

i did hear of jobs that i didn't hear of before. [Senior mentee, Pair 8]

Some ideas I got from the video was how important it really is to save your money and how it will benefit you in the long run [Senior mentee, Pair 10]

There were some things I didn't know before that I learned from reading and taking the [internet basics] quiz. [Junior mentee, Pair 9]

Three mentors in the high activity group discussed specific resources with their mentees. These include: online tools (Wikipedia, resume builder); funding opportunities (Aboriginal scholarships, funding websites, student loans); media resources (TV shows, TED talks); and, references to specific university programs. Some mentors also encouraged their mentees to contact people in person or via phone for information and support (professionals in field of interest, program staff, school counselor).

I use wikipedia almost every day. ... it is a great place to get a brief summary about just about anything. ... However, some people may post things ... that are not quite true, so if you have important questions you should always use wikipedia TOGETHER with another trustworthy source ... [Mentor, Pair 12]

My favourite site is called "Students Awards". If you Google that, it will bring you to their website. Check it out and tell me what you think! [Mentor, Pair 11]

The Community Leads and teacher-advocates interviewed confirm that mentees learned about topics like: organizational skills; requirements for career paths; and, Aboriginal culture.

One [mentee]... said he was learning how to be more organized in class. [Teacher-advocate, Oct 2014]

Students in grades 8-9 are learning about themselves and their learning styles. They are able to dialogue with their mentor about topics that they may not cover until they are taking Planning 10. [Teacher-advocate, District Lead Report]

One of [the mentees] was saying that ... his mentor was explaining his culture to him, because they were the same [Nation] ... he was learning a lot from that from him, and ... was excited to get on there and see what he had to tell about himself. ... [Teacher-advocate, Oct 2014]

They also believed that mentees had benefitted from exposure to the university experience, both via their connection to a mentor, and the UBC field trip offered through one District.

This year, the program was very successful. ...The program allowed students to explore their futures and learn information that some students would not learn until they were in university. Being able to connect with Doctors, Pharmacists, and Health Science Students from UBC allowed the students to see a completely different worldview from their own. [Community Lead, District Lead Report]

Exploring career and education options. Five mentees in the high and moderate activity groups had discussions with their mentors regarding different career and education options. The topics included: options within the mentees' fields of interest; requirements for post-secondary programs; medical school and types of medicine; and, researching careers (skills, education, pay, etc.).

Junior Mentee, Pair 9: hmmm....I don't think id like to do surgery...

Mentor: Most doctors don't want to do surgery and don't :) so that's not a problem at all! When I was younger I thought that surgery would be the last thing that I would like, but it turns out that once I started helping out in the operating room during surgeries ... that I absolutely loved it. That's another part of being in medicine. It's kind of a wild ride and the things that you like and don't like may surprise you.

Mentee: Ya maybe..lol but i don't really like looking at blood and all....:)

*Mentor: I know a brain doctor (neurologist) who told me that she picked neurology because she hates the sight of blood and she never has to look at it :) Medicine has a place for all types and preferences!
...*

Senior mentee, Pair 11: i meet all the requirements for the community social working, when it comes to taking course after high school

Mentor: This is excellent! It will allow you to immediately start taking the classes that you need and want to take in post secondary. ...

Interviews with community partners confirm that mentees explored potential career directions – some identified new directions, others confirmed their interests.

[One mentee] felt the experience was really helpful because she's got one of these sort of wide creative minds, and wasn't sure which direction she wanted to go. She actually got some fairly grounding responses from her mentor. [Community Leadership, Nov 2012]

I really enjoyed watching the students grow as the year went on. One of the best moments for me was when a student ... realized that she wanted to become a Journalist. In prior sessions, she was talking about how she could not picture herself doing anything when she was older. Now she has a goal and a potential career path to follow! [Teacher-advocate, District Lead Report]

They also noted that younger mentees gained earlier exposure to career exploration and post-secondary options, which are typically not covered until the mandatory grade 10 planning course.

Goal setting. While only three pairs in the conversation sample progressed to the goal-setting unit in their Quest, eight mentees had shared some form of education or career goal with their mentor.

by setting goals ... we try and do things with school and our free time to reach that thing that we want to do. for example i want to be a chef when I'm older so i take a cooking class in high school and than i go to collage and study cooking and further on i try and get a job in a restaurant. [Senior mentee, Pair 8]

I want to do better at math [Junior mentee, Pair 5]

A goal I would like to achieve by the end of the year would be to get my grades up. Lately they have been slipping and I want them to reflect my potential. [Senior mentee, Pair 10]

Senior mentee, Pair 11: ... I see myself as an aboriginal youth worker and I dream of that I wish so hard that I can do that ... but I also feel that its my goal, something im working hard towards.

Mentor: I think we have dreams and we set goals to achieve those dreams. And if you want to be an Aboriginal youth worker, then go for it! I think you're already on the right track. Having an undergrad in education might be helpful for that role. ... I know someone who went into that area of study and she did education and counseling and added some First Nations Studies classes to complete her undergrad.

Interviews with community partners confirm that mentees benefitted from the goal setting activities in the Quest.

It got them thinking about things that they wouldn't normally think about, like goal setting – I didn't know what SMART goals and all that stuff was ... until university ... learning about UBC, learning about their culture ... I think eMentoring taught the kids about different things that they wouldn't get until they're later in high school or in university. [Community Lead, Oct 2014]

In some cases, participation in the program resulted in significant changes in some students' potential educational trajectory. For a few mentees, it was a catalyst to their decision to stay in school.

... the biggest thing for me was that ... I had kids that were going to drop out when they got to grade 8. And they said that they were done. ... when I took them to UBC, those two boys, in particular, were like, "oh my gosh," they were so – like the science lab and the different things – like it just totally did something to them, and they were all excited. And they said they wanted to go to university. [Teacher-advocate, Nov 2014]

d-ii. Have mentees experienced empowering developmental outcomes?

The conversation analysis cannot offer many concrete examples of developmental outcomes – particularly more abstract outcomes, such as self-efficacy, which often involve subtle changes that youth may not recognize or articulate over the short duration of the program. However, many pairs in the conversation sample did engage in self-reflection activities that could contribute to mentees' long-term personal development. The potential is greatest for the mentees in the high activity group, who tended to reflect most deeply upon a variety of personal-development topics, such as personal goals, learning habits, and relationships with allies.

Self-efficacy. The conversation sample did not include any examples of mentees specifically writing about changes in their perceived self-efficacy. However, many of the topics pairs discussed throughout the Quest could impact mentees' psychosocial development, in terms of relationships, habits and attitudes. A couple of pairs in the high activity group shared deeper self-reflections on their development as individuals.

Senior mentee, Pair 10: I don't believe I have an exact "defining moment", but I feel like i'm on the [road] to defining myself and finding out who I am.

Mentor: ... I feel like I don't have "defining moments" either ... There are definitely moments of clarity where I feel like I understand myself better, but ultimately I feel like I am constantly changing and my life as a whole defines that changing process. It's awesome that you feel like you're on the path to defining yourself! :) '

I picked my own image [for the word cloud] from the internet of a haida fox, ... because I feel my life right now is full of tricks that are teaching me things, but at the same time they become confusing and make you wonder about a lot of stuff, like what going to happen next, am I going to be able to do this. [Senior mentee, Pair 11]

Community partners were able to give more concrete examples – a few reported seeing some of their students' confidence increase, particularly in terms of their ability to transition to high school and plan for post-secondary.

I think when they go [to high school], they'll be more relaxed, you know? And ... they won't have that fear, because they've already been in there so many times. ... And, actually, one of those kids is attending – and he goes every day to high school. Where he missed quite a bit [in elementary] – he was already getting ready to quit school. [Teacher-advocate, Oct 2014]

The most remarkable benefit for my students has been the increase in self-confidence and their new ability to consider a post-secondary education. Two students, in particular, seemed to embrace a future which they had not thought possible before. [Teacher-advocate, District Lead Report]

Community Leads and teacher-advocates also espoused the impact of a new experience, and being exposed to new options and opportunities. In addition, they noted that the positive messaging throughout the Quest, and from their mentors, was a source of encouragement that may not otherwise be present in some mentees' lives.

... even if they did the program a little bit, they still got a new experience out of it, and they learned some new things ... that they might not normally learn in the classroom. And they were able to make relationships with other adults, which I thought was important. [Community Lead, Oct 2014]

It's also instilling in them, too, that they can do it. Because I think a lot of them [don't get that message] in their lives, and in the home ... This whole program, and bringing them to the university, is showing them, 'Wow! Here I am doing it, and I'm only in grade 6 and I'm doing a lab!' You know what I mean? Showing them that they can do it. [Teacher-advocate, Oct 2014]

Personal goals. Three mentees in the high activity group shared a variety of personal goals related to: friends and family relationships; travel; music; helping others; having a positive outlook; culture; saving money; and, daily goal setting.

Home: Talk more with my family. Cultural: Talk to my parents about certain cultural traditions/beliefs and learn more about where my family came from. Community: Volunteer to at least 2 organizations a month [Senior mentee, Pair 10]

Senior mentee, Pair 11: goals help in all kinds of ways, being at a safe house you actually get asked what are three goals for tomorrow ... whether it be school, handing in that overdue book, and such they are small goals that get us somewhere later because then we get use to giving ourselves a to do list. making sure that we stay on track. ... I think about as if the small goals are just the little rocks In

the river the big rocks the ones you stand on but are also supported by the little ones ... and soon when you have enough you will be on the other side of the river.

Mentor: *I love the idea of setting three goals a day. I think I might start doing this as well. ... I always write a to-do list (mostly because I find lately my memory isn't as good as it usually is).*

Learning habits. Mentees and mentors discussed topics like study habits and learning styles (80 references within 9 pairs), and new educational options (29 references within 5 pairs), that have the potential to change mentees habits, perspectives and actions. The majority of conversation around school and studying occurred within the high activity group, but pairs in the moderate and low groups also covered these topics.

my results were: You have a mild Kinesthetic learning preference. i like to have hands on activities. act out stuff [Junior mentee, Pair 5]

Junior Mentee, Pair 9: *Skills I need to work on to be a successful student are: Participate more in class because I listen but I don't answer questions all the time. ...*

Mentor: *... as you progress in school, university or your career, you'll find that people are assessing you more and more by... how much you participate. It may be tough if you're a bit more shy, but one thing I was told when I started medical school is that the doctors and teachers evaluating me only know how much I know by what I say ... Even if I know all of the answers and am following along, nobody can tell unless you participate out loud! So that's something to slowly work on ... :)*

Mentee: *Ya my teachers say "I know she knows the answer but she doesn't participate" so I have to work on that :-(-:*

Senior mentee, Pair 10: *I need to work on a lot to be honest. I'm pretty bad with planning ahead and time management. I think that's because I don't like too much structure ... I'm more of the go with the flow kind of person. I should also work on eating better and getting more sleep.*

Mentor: *I definitely understand how structure and time management can be hard... I do my fair share of procrastinating ... I have a calendar where I right down when important things are due or I have a test, and then I can ... organize my time around those responsibilities. ... I think making small commitments is the beginning to successful changes, like putting a night aside to study for a test ... or to be in bed by 11pm every weeknight. ... Maybe it would be good to make some small commitments for yourself, and see how the changes affect your life :)*

Relationships with Allies. Identifying allies is a major theme within the Personal Quest, and many pairs within the conversation sample talked about their relationships with other people, and how others have influenced their lives. The results for question b-ii (p.35) show that the depth of discussion increased in the high activity group.

Some interviewees suggest that the in-person connections formed through eMentoring had the greatest impact on mentees. In some of the sites with regular eMentoring sessions, a sense of community developed around the program. Many mentees at these sites formed bonds with their Lead and teacher-advocates, and found a supportive peer group in their fellow mentees; this was a source of friendship, encouragement and support that did not exist previously.

I think that it benefitted them by establishing a relationship... [and] building community. So, having the [elementary] kids come up, having our [high school] kids getting to know them. I mean, I had a student that graduated last year, and ... I told him that [the Lead] was coming into my class [today], and he asked if he could come in and help out my class... If you knew the kid, and you knew how he normally was in class... he was unreal today. ... He just kind of sat down and started [helping a student] writing out responses to some reflection questions... that comes from kind of the modeling of that mentoring relationship [with the Lead]. ... what happened around eMentoring was really positive. And, it wouldn't have happened... without [the Community Lead] position. It wouldn't have happened without trying out this curriculum... [Teacher-advocate, Oct 2014]

The impact of e-mentoring at our site has been hugely positive! Students that had never considered themselves leaders have shifted their mindset and are beginning to see themselves as positive contributors to our school. The group of students involved in the weekly sessions have developed friendships with each other and share a common bond which they did not have before. I have found that they are more encouraging of each other. [Teacher-advocate, District Lead Report]

Discussion

Empowering Organizational and Partnership Structure

While not all of its relationships were equally successful, eMentoring appears to have developed a partnership structure conducive to empowerment. The community and School District partners gained opportunities for meaningful participation that contributed to some capacity building at the individual and organizational levels. eMentoring's best results (in terms of mentee activity) are attributable in large part to its partners having the freedom to customize their approach to the local context. As a result, the Community Lead role is critical to the successful implementation of the program.

The UBC team did face some challenges in maintaining a relatively equal power relationship with its community partners – the primary of which was inconsistencies in Community Lead performance and accountability. This challenge is revealing of the delicate balance required in value-based partnerships to secure strong foundational relationships (Figure 4, p.26). Sites in which one or more of the foundational relationships was weak or missing, the Leads faced difficulties in fulfilling their role. This seemed to be particularly true in First Nations communities experiencing “high collective stress,” in the form of family or community upheaval (48:p.154). The best results were achieved in the School District in which the Community Lead role was embedded into District programming. This arrangement strengthened the relationship among the Lead, UBC team and District administration, and facilitated strong working relationships between the Lead and teacher-advocates.

eMentoring is also consistent with empowering organizational ideals in its ability to respond to challenges and adjust the program in response to critical feedback and changing circumstances. The most powerful example of this is the redesign of the Personal Quest – a major investment of staff and

funding resources that paid significant dividends in terms of mentee engagement. If the team had been unwilling to make changes to a core component of the program, it is unlikely that mentees would have been as active as they were in 2013/14. That being said, the eMentoring team did not respond to all challenges with equal success – one of the most critical examples being its failure to secure sustainable funding before the CIHR grant period ended. Most of eMentoring’s setbacks are attributable to limited staff capacity, and the continually evolving nature of an exploratory program.

Empowering Learning Space and Relationships

The Personal Quest learning space reflects an empowering belief system, and appears to foster conversations focused on mentees’ strengths, personal growth and relationship development. However, the achievement of real talk among mentors and mentees seems to be largely dependent upon the amount of time mentees dedicate to working on the Quest. Mentor-mentee pairs were most likely to demonstrate some measure of reciprocity or mutuality when mentees had logged more than 300 minutes – the mentees in the most successful pairs logged at least double that amount. Based on overall mentee activity statistics, the potential for empowering relationships and outcomes increased significantly in 2013/14; most months, the proportion of mentees active in the program exceeded the 40% threshold expected for e-mentoring relationships (45).

On the surface, the increase in activity appears to be a direct response to the redesign of the Personal Quest. However, the significant differences in activity between Junior and Senior mentees indicate that the program needs further refinement to effectively engage mentees in the two age groups. The content of both Personal Quest streams could be improved to better target the needs of youth in different developmental stages; more relevant and appealing content should help to further increase activity levels. The engagement strategies used by Leads have an equal (if not greater) impact on mentee activity levels, and the eventual quality of relationships, as the content of the program. Not all Community Leads were equally successful in identifying successful engagement strategies for their mentees – possibly due to a lack of support, or a lack of time (for partners who joined later in the year).

The original eMentoring proposal seems to have underestimated the full impact of the mentee engagement component, and did not anticipate the sense of community that emerged in schools that implemented a semi-formal group mentoring strategy. The personal connections that arose from this approach helped to strengthen mentees’ connections to the program, encouraged active online participation, and contributed to some of the most profound mentee outcomes.

Empowering Outcomes

The research challenges faced by eMentoring make it difficult to offer concrete conclusions regarding the instrumental and developmental outcomes of the program. However, the anecdotal evidence given by Community Leads and teacher-advocates do provide an indication of the potential of the eMentoring program to have a powerful impact on the futures of Aboriginal youth. Participation in eMentoring contributed to improvements in mentees' confidence and leadership skills; their awareness of Aboriginal culture; and, their visions of the education and career possibilities available to them. The program even motivated some mentees to improve their participation in school, and even reconsider dropping out.

Conclusion

eMentoring demonstrates an empowering process that can be adjusted to different community and School District contexts. Exactly how the program needs to be adjusted to each context – particularly in light of the deep-seated challenges in some First Nations communities – requires further exploration. eMentoring also exhibits strong potential to achieve genuine, empowering outcomes for Aboriginal youth and communities. Specifically, the potential for empowerment arises from mentees' exposure to new ideas and options, and positive messages regarding their personal potential that encourage them to recognize and leverage their strengths and interests. In addition, mentees benefit from increased social capital, arising from their new online and in-person connections that were unlikely to have formed outside of the context of the program. Now that the program has stabilized in terms of having proven program content and processes, an additional one to two full school years of data collection, as well as follow-up research with former mentees, would help to build a more complete understanding of the impact of the program on mentees.

Finally, the eMentoring program validates the connection between empowering processes and outcomes. Empowering Community Leads to shape the program to the local context, and the needs of their youth, can have a direct impact on outcomes. Strong foundational relationships at the levels of local administration and implementation are necessary for Leads to successfully engage mentees.

Recommendations

A number of recommendations related to mentee and partner engagement emerged from the analysis. These are broadly applicable to e-mentoring programs, and more specifically to online programs with an in-person engagement component.

Mentee Engagement

1. Include opportunities for in-person interaction to reinforce online participation (9:p.222, 46,50). The eMentoring experience in the School Districts indicates that this approach strengthened the relationship among Leads, teacher-advocates and mentees. Future eMentoring partnerships, or similar programs working with First Nations communities, should consider engaging community members to provide additional support to Community Leads.
2. Programs that are bound by the academic year should register mentees as early in the year as possible to give them as much time as possible to interact with their mentor and the content of the online program.
3. Explore opportunities to increase the immediate appeal of the program to participants – either in terms of the relevancy of the content, or more concrete benefits, such as offering course credit for successful completion of the Quest. Course credit may be a particularly effective motivator for older students who have heavier course loads and are more likely to give up non-credit activities.

Partner Engagement

1. Multi-site, exploratory programs working with marginalized populations are best served by taking a flexible approach to implementation. Adaptability was one of the eMentoring program's key strengths, despite the fact that it did not achieve the desired results at all sites.
2. Have honest conversations with potential partners regarding their capacity to take on the program. Some of eMentoring's partners were facing significant leadership turnover or community turmoil that made it difficult to sustain the partnership; it would be most prudent to only embark on a partnership when the community or District has the capacity to be fully committed. Otherwise, the program risks damaging the trust of participants and community members.
3. Negotiate partnership agreements that clearly outline roles and responsibilities, as well as concrete consequences for failing to meet mutually agreed upon requirements. eMentoring's partnership agreements did not include consequences, which created difficulties for the UBC team, who felt unable to effectively address the issue of underperforming Leads. Clearly defining expectations at the outset need not create an undue imbalance of power between partners, as long as consequences are mutually defined.

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Appendix

Table A-1. Measures of association between mentor agreement ratings and mentee total minutes logged and Personal Quest stream

Question	N	Mentee Total Minutes			Stream (Old vs Junior vs Senior)		
		tau c	Chi-Sq.	Asym. Sig.	Cramer's V	Chi-Sq.	Asym. Sig.
3	60	0.34	27.23	0.129	0.31	11.21	0.342
4	59	0.29	19.42	0.495	0.22	5.94	0.82
5	60	0.37	50.15	0	0.26	8.22	0.608
8	60	0.41	24.84	0.073	0.25	7.45	0.489
12	60	0.30	21.24	0.17	0.32	12.35	0.136
18	60	0.23	28.95	0.024	0.28	9.29	0.319
36	60	0.29	19.66	0.48	0.31	11.79	0.299
37	60	0.28	23.64	0.258	0.34	13.93	0.176
38	60	0.28	22.96	0.291	0.30	11.04	0.355
39	59	0.32	29.65	0.076	0.29	10.25	0.419
49	60	0.39	19.15*	0.014	0.13	2.18	0.702

Table A-2. Adjectives used to describe the strength of relationships indicated by ordinal measures of association (MOAs) and linear regression

Ordinal MOAs (Cramer's V, Tau C)		Linear Regression	
Range	Adjective	Range	Adjective
Less than + or - 0.10	very weak	Less than + or - 0.25	very weak
+ or -0.10 to 0.19	weak	+ or -0.25 to 0.34	weak
+ or - 0.20 to 0.29	moderate	+ or - 0.35 to 0.39	moderate
+ or - 0.30 or above	strong	+ or - 0.40 or larger	strong

Source: Botsch (2011)