

Online Interest Groups: Virtual Gathering Spaces to Promote Graduate Student Interaction

Beverly Getzlaf, Centre for Nursing and Health Studies, Athabasca University, Athabasca, AB, Canada

Sherri Melrose, Centre for Nursing and Health Studies, Athabasca University, Athabasca, AB, Canada

Sharon L. Moore, Centre for Nursing and Health Studies, Athabasca University, Athabasca, AB, Canada

Helen Ewing, Arizona School of Health Sciences, A.T. Still University, Mesa, AZ

James Fedorchuk, Centre for Nursing and Health Studies, Athabasca University, Athabasca, AB, Canada

Tammy Troute-Wood, Center for Nursing and Health Studies, Athabasca University, Athabasca, AB, Canada

ABSTRACT

This article discusses a 15 month educational innovation project, the objective of which was to investigate the perceptions of health profession students about their participation in a program-wide virtual community gathering space (Clinical Interest Groups) during their online graduate studies. Participants were students in two graduate programs who joined online forum discussions of the Clinical Interest Groups. The project was developed as action research and employed an exploratory, descriptive methodology to generate data from three sources: participant responses to a 15-item Likert type questionnaire, five open-ended questions included on the questionnaire, and online postings contributed by participants to the forum discussions. Findings of use to online educators are that the Clinical Interest Groups provided a gathering place in which graduate students could discuss common interests and support one another, and that participation in the groups was limited due to competing demands on students' time from other commitments.

Keywords: Clinical Interest Groups, Education, Healthcare, Online Graduate Studies, Program-Wide Virtual Gathering Space, Social Integration

INTRODUCTION

Literature suggests that supportive student-student interactions foster social and academic integration (Kanuka & Jugdev, 2006; Rourke et al., 1999; Thomas, 2000) and that such integration leads to increased satisfaction (Mayne & Wu, 2011; Richardson & Swan, 2003) and course completion (Lovitts, 2000, 2001; Rourke et al., 1999). Literature also reveals that student-student ties and support evolve over time (Oren, Mioduser, & Nachmias, 2002; Stodel, Thompson, & MacDonald, 2006; Yuan, Gay, & Hembrooke, 2006). However, the research investigating social integration in online learning that was reviewed for this study focused on students in discrete courses as the unit of study. Research was not found that examined the experience of social integration from a perspective that takes into account the development of student-student interactions over time. Our action research project is unique in that it was completed from a 'program' perspective and spanned several discrete courses taken over a period of time. Other online educators may be interested in replicating this innovation with graduate students who are health care practitioners.

In this article we describe findings from a research project that investigated the experiences, reflections and feelings of students who participated in a program-wide virtual community gathering space during their online graduate studies. Online interest groups (Clinical Interest Groups) were created within Moodle, an online learning platform, to provide opportunities for health professions students to engage in asynchronous discussions about shared clinical interests, distinct from the online activities of any particular course. While the main purpose of the project was to explore learners' perceptions of participating in a non-graded program-wide activity, a secondary purpose was to consider ways in which we could improve our online learning environments and students' online learning experiences based on their feedback.

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The project was guided by the Community of Inquiry (COI) framework described by Rourke, Anderson, Garrison, and Archer (1999). The COI framework highlights three major dimensions of the online learning environment that overlap to form the educational experience of the student: social presence (interpersonal connection), cognitive presence (construction of meaning through communication) and teaching presence (facilitation of active learning). Of these dimensions, social presence is the most relevant to this project.

Social presence is defined as the ability of learners to project themselves socially and emotionally in a community of inquiry (Rourke et al., 1999). Social presence includes feeling comfortable, safe and willing to accept both support and differing points of view (Anderson, 2005). Rourke et al. suggest that social presence increases academic, social and institutional integration, resulting in increased persistence and course completion. There are a number of studies that have supported this suggestion, concluding that social presence is created in online learning environments and contributes positively to learning, satisfaction and persistence in online learning (Aragon, 2003; Mayne & Wu, 2011; Melrose & Bergeron, 2006; Richardson & Swan, 2003; Russo & Benson, 2005; Swan & Shih, 2005; Tu, 2002). On the other hand, feelings of isolation can be exacerbated when students do not feel a sense of social presence or when they do not feel that they are part of a community (Jung, 2001).

Social presence is based in social integration. In graduate studies, Lovitts (2000) explained that social integration "develops through informal, casual interactions between and among graduate students and faculty outside the classroom" (para. 6). Social integration has been found to increase program completion and reduce program attrition (Thomas, 2000; Tinto, 1975). Online graduate students

appreciate course designs that include optional nonacademic social discussion forums to promote social integration (Pate, 2008). As Rovia (2002) comments, although learning needs will attract adult learners to a program, they are not sufficient to retain them; social integration has a significant positive effect on retention of adult learners. Online educators are responsible to provide educational intervention activities that enhance social integration by creating a 'social dimension' within educational programs (Kanuka & Jugdev, 2006; Mayne & Wu, 2011), inviting collaboration (Shen & Wu, 2011), building a sense of community and reducing feelings of isolation (Brandes, 2006; McGivney, 2004).

Social integration activities must include more than course-related activities. From their synthesis of studies that explored social issues in online course activities, Oren et al. (2002) concluded that support of social activities in online learning environments must extend beyond course activities. They suggested creating a range of virtual spaces in order to respond to different social needs, and enabling participants to contact each other for multiple purposes rather than solely for learning purposes. Viewing social integration as integral to success, Saunders and Lynch (2008) used web sites with interactive membership pages and blogs to help education students become more integrated into the graduate student community of their program. However, it is important to note that student-student ties and support evolve over time: they become strong by 'the end of the course' (Atack, 2003; Oren, Mioduser, & Nachmias, 2002; Stodel, Thompson, & MacDonald, 2006). Similarly, Yuan, Gay, and Hembrooke (2006) found that connectedness in task-related social networks grew significantly over time.

Based on this review of literature, we speculated that it could be a useful educational strategy to provide a virtual space for graduate students to engage in interactive activities with fellow students who share common interests. Such a space would create an electronic network of practice. In industry, the term 'network of practice' refers to informal emergent social networks or groups where individuals

with common interests interact and exchange information (Seely-Brown & Duguid, 2000). In educational settings, the term 'network of practice' evolved from Wenger's work with 'communities of practice.' Wenger asserted that professionals are believed to learn best during informal workplace gatherings where stories are shared, novices learn from experts and gaps in practice knowledge are identified (Berry, 2011; Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Snyder, 2002; Wenger, 2006, 2009). In virtual learning communities, electronic networks of practice involve self-organizing networks of geographically distributed individuals who share a mutual interest in engaging with others in discussions related to a common practice but who do not know one another, do not meet face to face and interact via online, computer-mediated communication (Daniel, Schwier, & McCalla, 2003; Wasko & Faraj, 2005). We reasoned that the creation of such a network amongst the students could reduce feelings of isolation, facilitate increased social integration and create a sense of belongingness to the university. In addition, the space could assist students to establish links between course activities and their employment and other personally relevant activities.

CLINICAL INTEREST GROUP RESEARCH PROJECT

Participants in the Clinical Interest Groups were enrolled in a Master of Nursing (MN) or Master of Health Studies (MHS) program at a Canadian university. While students in the MN program hold undergraduate degrees in nursing, those in the MHS program come from a variety of health disciplines including nursing, physiotherapy, occupational health, dietetics, and medicine. Course work in the program is completed exclusively online using the Moodle learning management system. The primary medium for communication and interaction is asynchronous text-based threaded discussions completed in 14-week online courses. However, there is no opportunity outside of the courses

for students to gather together and interact with other learners in their programs. The programs focus on development of leadership skills and, despite the fact that most students are employed in clinical settings and have extensive clinical expertise, there is no option for students to engage in discussions with their peers about clinical areas of interest.

We created a Moodle environment that facilitated interactions amongst students with similar professional practice interests. The environment consisted of password-protected discussion fora for three interest groups in the clinical areas of mental health, gerontology, and spirituality and healing. These foci for the Clinical Interest Groups were selected on the basis of an informal review of clinical interests expressed on program application forms and faculty expertise. The Clinical Interest Groups were opened for participation via an invitation to students posted on our faculty website, and participants were invited to join one or all of the groups.

In order to gain access to the Clinical Interest Groups, participants e-mailed a request to join the groups to a faculty member of the research team who did not have teaching responsibilities in the program. The participants received an email response from the faculty member that provided access information (URL and password for the Moodle site) and offered general suggestions for respectful participation. Faculty members of the research team posted a welcome to each of the three Clinical Interest Groups, and a graduate student monitored the groups on a daily basis and facilitated discussions by responding to comments and posing questions to extend conversations. Thirty-one students and faculty were provided access to the Clinical Interest Groups during a 15 month timeframe. Requests for participation from students at other universities were not able to be accommodated. A request from an undergraduate student at our university was accepted.

At the same time as access to the Clinical Interest Groups was provided, participants were invited to participate in a research project investigating their experiences of par-

ticipating in the Clinical Interest Groups. Full ethical approval of the research was granted by the university's Research Ethics Board. Participants were informed that they would be asked to complete a questionnaire about their experiences in the interest groups, and that the frequency and content of their discussions in the groups would be analyzed. Only 8 of the 31 participants in the interest groups responded with their consent to participate in the research project. Those 8 participants were emailed the questionnaire approximately six months after initially accessing the interest groups. Only 5 participants returned completed questionnaires.

The Clinical Interest Group innovation was developed as an action research project. Action research is a reflective, iterative process in which educators use research techniques to examine their practice carefully, systematically and with the intention of applying their findings directly to their own and other educators' every day work (Altrichter, Feldman, Posch, & Somekh, 2007; Corey, 1949; Kemmis & McTaggart, 1990; Koshy, Koshy, & Waterman, 2011). Kemmis and McTaggart (1988) offered the seminal explanation that action research is a deliberate, solution-oriented investigation that is group or personally owned and conducted. It is characterized by spiraling cycles of problem identification, systematic data collection, reflection, analysis, data-driven action taken, and, finally, problem redefinition. The linking of the terms "action" and "research" highlights the essential features of this method: trying out ideas in practice as a means of increasing knowledge about or improving practice (Kemmis & McTaggart, 1988).

Action research is valued more for the change it can initiate in everyday practice than for a quantitative goal of working with large sample sizes and generalizing the findings to a broader audience (Koshy, Koshy, & Waterman, 2011). "The action researcher is interested in the improvement of the ... practices in which he [sic] is engaging. He undertakes research in order to find out how to do his job better – action research means research that affects actions" (Corey, 1949, p. 63). In our Clinical

Interest Group project, we sought to improve our teaching practice through the action of providing and then collecting data about a program-wide virtual community gathering space with a small group of our online graduate students. We continue to work with our participants to reflect, analyze and redefine our educational innovation.

An exploratory, descriptive design was employed to collect data about the Clinical Interest Groups innovation. We did not locate existing research that examined students' perceptions of participating in program-wide virtual communities and this design supported our desire to find out about students' perceptions (exploratory) and describe what we found (descriptive). "Descriptive study is the method of choice when straight descriptions of phenomenon are desired" (Sandelowski, 2000, p. 339). The expected outcome of such research is a straight and "largely unadorned" (p. 337) descriptive summary of the data. Qualitative data are summarized in the language of participants without transformation into abstract conceptualizations or theory. Quantitative data are summarized as descriptive statistics such as frequencies and measures of central tendency.

The team used across-method triangulation to obtain multiple perspectives of the students' experiences of the Clinical Interest Groups (Thurmond, 2001). Across method triangulation refers to the use of quantitative and qualitative data collection methods and analysis to support data completeness (achieving as complete an understanding as possible) and confirmation (determining the extent to which findings derived from different methods converge or are confirmed) (Casey & Murphy, 2009). Data were collected via a questionnaire that included both quantitative measures (a 6-point Likert scale) and a qualitative component (written responses to open-ended questions) (Appendix). In addition, data were collected through analysis of the postings that participants contributed to the Clinical Interest Group forum discussions.

The Likert scale included 15 6-point items designed to measure the extent to which participation in the interest group discussions

supported clinical expertise (items 1, 2, and 3), problem-solving and critical thinking (items 4 and 5), and social presence and integration (items 6 to 9 and items 11 to 14). Two items (10 and 15) measured overall usefulness of the interest group discussion. These ordinal-level data were analyzed by calculating the median to determine if the quantitative measures confirmed the qualitative comments of the participants.

The open-ended items on the questionnaire (see Appendix for specific questions) were designed to solicit qualitative data about the students' experiences of participating in the interest groups, such as reasons for joining and memorable experiences. In addition, forum discussion postings of those participants who consented to the study were analyzed to discern themes within the discussions (Loiselle, Profetto-McGrath, Polit, & Beck, 2007). The qualitative data from the open-ended questions and the forum postings were analyzed using a process of "thematizing" (Mitchell & Jones, 2004) in which themes in the data emerged through an iterative process of reading and re-reading the data. Three criteria guided the generation of themes: recurrence, repetition and forcefulness (Owen, 1984). Recurrence of ideas within the data occurs when ideas are determined to have the same meaning but different wording (for example, "connections with other learners" and "connecting to people"). Repetition refers to the existence of the same ideas using the same wording (for example, "sharing ideas" and "ideas were shared freely"). The final criterion, forcefulness, is found when the importance of a response was reinforced by the emphatic tone of the response or the use of quotation marks, underlining, italics or bolding to provide emphasis (for example, "if we keep others joining, it will grow and prosper!").

To overcome potential bias of a single-investigator approach and enhance the credibility of the findings and interpretations, the study made use of investigator triangulation in which more than one researcher collected and analyzed data (Halcomb & Andrew, 2005; Thurmond, 2001). The study employed a team approach with multiple investigators and

intra-team collaboration and communication to decrease the potential of bias in gathering and analyzing data. The team consisted of four educators experienced in the delivery of online courses to graduate students in health disciplines, a research assistant who was a senior graduate student at the university and an instructional media analyst who designed the Moodle learning environment for the Clinical Interest Groups. Each member of the team was involved in development of the design of the study and the questionnaire as well as analysis of the data that were generated in the study.

FINDINGS

Given the very small number of study participants (5), our findings can be considered tentative at best. We recognize that the number of participants is low. However, we believed that even with this sample size there were important lessons to be learned. Two themes emerged through thematic analysis of the open-ended questions and forum postings: the Clinical

Interest Groups did provide a gathering place where common interests could be discussed and support for one another shared, and participation in the Clinical Interest Groups was limited due to competing demands on students' time from other commitments. The theme of "a gathering place" seemed to be confirmed by the medians of the items on the Likert scale (Table 1). However, statistical analysis of such a small sample cannot be considered reliable and should be viewed with caution.

Theme 1. Clinical Interest Groups as a Gathering Place

The Clinical Interest Groups provided students an opportunity to discuss common interests with one another. Analysis of the open-ended questions and the online discussions revealed the following topics:

1. Hoping that the Groups will be a place for sharing knowledge, a place for rich, ongoing conversations, an opportunity

Table 1. Median scores of questionnaire items

Participation in the Online Clinical Interest Groups:	Median
1. Provided opportunities for information exchange about my clinical area of interest	5.5
2. Strengthened my clinical knowledge base	5
3. Offered solutions to clinical questions	4.5
4. Presented problem-solving opportunities	4.5
5. Reinforced my abilities to think critically	4
6. Provided opportunities to network with like-minded others	4
7. Created a sense of belongingness with my program community	5
8. Established a sense of support with fellow students	4
9. Allowed me an opportunity to contribute my ideas	5.5
10. Was a worthwhile use of my time	5
11. Fostered possibilities for emotional closeness	3.5
12. Facilitated cooperation for mutual benefits	3.5
13. Left me feeling that my participation was valued	5
14. Stimulated a sense of camaraderie	5
15. Overall, could be described as a positive experience	5

- to connect with a community of online learners, and an opportunity to explore new ideas with like-minded individuals;
2. Discussing their practice settings and roles and issues at work, and specific clinical information from their settings;
 3. Sharing resources, including journal articles, web sites and professional conferences, with discussion of how these could be useful in their work settings;
 4. Revealing their passion for their clinical work;
 5. Appreciating the discussions as a “break” from course work;
 6. Providing academic coaching (writing objectives, formatting papers, organizational strategies).

Analysis of the quantitative measures seems to support this theme, as Table 1 demonstrates. In Table 1, negatively worded items have been rescaled to present scores as positively worded items. As noted earlier, the results of statistical analysis can be considered only suggestive because of the small size of our sample.

Participants indicated that they agreed that the interest groups supported clinical expertise (items 1, 2 and 3), problem-solving and critical thinking (items 4 and 5), and social presence and integration (items 6 to 9 and item 13). The medians of two of the items designed to measure social presence and integration (11 and 12) could be interpreted as neutral responses. Participants also agreed that the clinical interest groups were a worthwhile and positive experience (items 10 and 15).

Theme 2. Limited Participation due to Competing Demands

A second theme that emerged from thematic analysis of the qualitative data was that competing demands kept participants away from the forum discussions. Participants found it difficult to remain actively involved in the Clinical Interest Groups over time, citing time pressures from course work, full time employment and personal or family commitments. Even

though questionnaire responses suggested that participation in the Clinical Interest Groups was positive and useful and participants stated they would encourage others to join the groups in order to build relationships with colleagues, they also noted that they would caution potential participants to ensure that they had the time to commit to the group.

DISCUSSION

Anderson (2004) notes that each discipline has its own ways of understanding and communicating about knowledge, that is, its own “world view,” and students need opportunities to experience this. It is also the case that specialties within health disciplines have their own language, clinical approaches, and areas for scientific study. By creating online interest groups that extended beyond both course time frames and the leadership focus of the program, our Clinical Interest Groups offered students an opportunity to experience social integration within a network of practice.

The findings presented in the previous section illustrate key features of social integration. Participants felt safe and comfortable sharing their views, commenting about the way in which “ideas were shared freely” and they “felt open to be very honest” in an environment that was “very respectful and inquisitive.” The interest groups addressed multiple purposes, helping students to learn from one another regarding both their clinical areas of interest and their roles as graduate students. The students felt connected to people from across the country and, in the words of one participant, this helped to provide “the interfacing that makes learning most enjoyable.”

The student-student ties and support that are integral to social integration evolve over time. Although there are suggestions that these ties and support were developing, participants commented on the slowness of formation of a sense of group identity. At times there were long delays before a particular student’s post would be commented on by others and that

was discouraging. None-the-less, students were positive about the potential of the interest groups, encouraging faculty to keep the groups going so that others would join and the groups would “grow and prosper.”

The difficulties we experienced in sustaining participation in the Clinical Interest Groups are comparable to those reported by other researchers exploring professional interest group activities. McKee, McKague, Ramsden, and Poole (2007) reported only 30% participation in a Family Medicine Club interest group offered to undergraduate medical students. While evaluation reflected that offering the group was a valuable endeavor, McKee et al. attributed the low participation, in part, to limited student and faculty time. McKee et al found that involvement became a challenge as students moved on in their training and as their practicum work increased.

In their study of a 10-year online professional development group for teachers, Riverin and Stacey (2008) also noted that participants experienced diminishing participation in their online community despite improvements in technology and other supportive efforts. They identified that lack of time to access the discussion forum and connect with others was a significant barrier to participation. They speculated that information overload due to growing Internet use may have affected participation in their online community. They questioned whether, over time, active participants became ‘lurkers’ or peripheral participants, threatening the sense of community. Finally, they recommended that, as newer electronic social networking tools become available to create communities of practice, attention be paid to managing the barriers of time and information overload.

Riverin and Stacey (2008) identified the importance of using community-building practices to support online communities. As part of our process of facilitating the groups, we deliberately implemented community building activities. For example, expectations for respectful participation were identified at the outset and options provided in case members

believed those expectations were not being met. Faculty members posted welcoming messages to each group forum and ongoing faculty participation in the group discussions demonstrated our commitment to the groups and our belief that the groups could be valuable in supporting student integration, learning and development as graduate scholars. A moderator provided personal greetings to each new member, asked questions and followed up with student postings to support discussions. However, participants suggested strategies that could have improved community-building and interaction within the interest groups. Participant feedback indicated that students would value more frequent responses from a moderator and the inclusion of planned activities such as posting journal articles or specific topics for discussion. These suggestions will be incorporated in future groups.

The development of an instrument to use in evaluating virtual networks of practice (Appendix) is a valuable contribution to understanding online communities of graduate students. The instrument was developed through a collaborative effort of the research team members. To develop the Likert scale, two research team members reviewed literature and research of social presence, social integration and online communities to identify outcomes that could be expected as a result of participation in the Clinical Interest Groups. Terms or phrases that were perceived as conveying the same meaning (for example, feeling part of a community and sense of belonging to a community) were consolidated and a list of possible items to be included on the instrument was created. The list of possible items was considered by team members in light of our experiences in online education and those determined to be most relevant were selected for inclusion on the instrument. Three items specific to the clinical focus of the groups then were added to the instrument. Finally, in order to capture student experiences that were not included in the Likert scale items, open-ended questions were added to the instrument. Given that this study was an initial exploratory attempt to collect data about online networks of practice, we did not

undertake testing of the reliability or validity of the instrument prior to its use. However, such testing could be included in future studies.

There are important lessons learned from this action research project about how we as educators can promote success in online learning environments. Some students welcome the opportunity to belong to a community that expands their interactions and learning beyond the time-limited boundaries of individual courses in a program. However, such communities require nurturing in order to flourish and strategies to promote interaction and learning should be carefully designed and implemented to ensure that participants feel welcome and believe that time spent in the community is worthwhile. Strategies should address issues that threaten the viability and sustainability of online communities. How much activity should be free-flowing discussion among students and how much should be planned activity initiated by a moderator or faculty member? How can 'lurkers' be identified and encouraged to remain active? How can an online community of practice become a relevant part of the students' integrated electronic networks that includes email, blogs, wikis and social media? How can the barrier of time be managed?

However, we would be remiss if we did not ask other, larger questions. Are program-wide virtual gathering spaces important to online graduate students or is our commitment to such groups an example of a mismatch between "faculty dreams and student realities"? Is this type of social networking useful or, given the increased availability of social media, are students already overloaded with networking opportunities? Do the demands of course work, employment and family life mean that such online groups become burdensome rather than supportive? These are questions that warrant further investigation.

CONCLUSION

Initiating the Clinical Interest Groups and reflecting on our educational innovation was

an important first step in offering our health professions students an environment where they can gather, share common interests and develop feelings of belongingness as part of a community of learners. By creating a program-wide virtual community gathering space, online graduate students were offered opportunities to engage in practice related discussions, exchange resources and extend their social time together even after courses ended. Although competing demands on their time often kept students from participating, they appreciated having the opportunity available. Students enjoyed the connections they made with other like minded individuals and they valued the chance to reveal their passion for their clinical specialty. Our Clinical Interest Groups established a space where communities of practice could emerge. The groups were a place for the interpersonal connections so essential to enhancing social presence and social integration in online learning. The present investigation encourages faculty to acknowledge the importance of offering online graduate students opportunities to connect in program wide virtual communities. Knowing how much learners value discussion areas that are based on common interests and that do not end when courses are over leads us to look for other ways to establish and improve similar virtual communities.

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Beverley Getzlaf is the Chair, Graduate Programs in the Centre for Nursing and Health Studies and Assistant Professor at Athabasca University, Athabasca, Alberta, Canada. Dr. Getzlaf is a registered nurse with a BN from the University of Manitoba, a MN from the University of Calgary and a PhD in nursing from the University of Utah. Dr. Getzlaf's research interests focus on critical pedagogy in online learning, in particular creation of culturally safe learning environments and development of critical perspectives.

Sherri Melrose is an Assistant Professor in the Centre for Nursing and Health Studies at Athabasca University, Athabasca, Alberta, Canada. Dr. Melrose is a registered nurse with a MEd and a PhD in education from the University of Calgary. Dr. Melrose's research interests include examining the experiences of health care professionals as they continue their education in online learning environments and the kinds of instructional responses that best facilitate student success.

Sharon L. Moore is an Associate Professor in the Centre for Nursing and Health Studies at Athabasca University. Dr. Moore is a registered nurse and registered psychologist with a MEd in counselling psychology from the University of Calgary and a PhD in nursing from the University of Texas at Austin. Her research interests focus on hope and aging, knowledge translation for the assessment and prevention of suicide in older adults, and on strategies that foster student success and community in online learning.

Helen Ewing is the director of the Doctor of Health Sciences program and Assistant Professor at the Arizona School of Health Sciences. Dr. Ewing is a registered nurse with a BN and MN from the University of Calgary and a DHSc in health science from Nova Southeastern University. Dr. Ewing's research interests focus on studying issues impacting global health, online education, healthcare leadership, and nursing.

James Fedorchuk is an Application Administrator/Webmaster in the Centre for Nursing and Health Studies at Athabasca University. After earning his BEd, and Master of Library and Information Service, he worked in the education field for the past 20 years, both as an educator in the public school system and as a course designer and developer with the University of Alberta and Athabasca University. His current interests are specific to digital interface design and effective hypertext navigation.

Tammy Troute-Wood is a registered nurse who completed her Master of Nursing online in the Centre for Nursing and Health Studies at Athabasca University. During her studies, Ms. Troute-Wood was employed as a research assistant for the research project. She has 17 years of experience in nursing and currently manages a woman's health unit in Calgary, Alberta, Canada.

APPENDIX

Online Clinical Interest Group Questionnaire

Please indicate how much you agree or disagree with each of these statements about your participation in the online Clinical Interest Groups by underlining the appropriate number.

Table 2. Underline only one number for each statement.

Participation in the Online Clinical Interest Groups:	Completely Disagree	Mostly Disagree	Slightly Disagree	Slightly Agree	Mostly Agree	Completely Agree
1. Provided limited opportunities for information exchange about my clinical area of interest	1	2	3	4	5	6
2. Strengthened my own clinical knowledge base	1	2	3	4	5	6
3. Offered solutions to clinical questions	1	2	3	4	5	6
4. Presented minimal problem-solving opportunities	1	2	3	4	5	6
5. Reinforced my abilities to think critically	1	2	3	4	5	6
6. Provided opportunities to network with like-minded others	1	2	3	4	5	6
7. Created a sense of belonging with my program community	1	2	3	4	5	6
8. Established a sense of support with fellow students	1	2	3	4	5	6
9. Did not allow me an opportunity to contribute my ideas	1	2	3	4	5	6
10. Was not a worthwhile use of my time	1	2	3	4	5	6
11. Fostered possibilities for emotional closeness	1	2	3	4	5	6
12. Facilitated cooperation for mutual benefits	1	2	3	4	5	6
13. Left me feeling that my participation was not valued	1	2	3	4	5	6
14. Did not stimulate a sense of camaraderie	1	2	3	4	5	6
15. Overall, could be described as a positive experience	1	2	3	4	5	6

Please answer the following questions:

1. What prompted you to join the Online Clinical Interest Group(s)?
2. What stands out most for you about your experiences participating in the Online Clinical Interest Group(s)?
3. What did you particularly like about the Online Clinical Interest Groups' initiative?
4. Do you have any suggestions for how the Online Clinical Interest Groups' initiative could be improved?
5. Would you recommend others join the Online Clinical Interest Groups?