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Instructors' Adaptation to Online Graduate Education in Health Promotion: A Qualitative Study

Douglas Wilson, Stanley Varnhagen, Eugene Krupa, Susan Kasprzak, Vali Hunting, and Anna Taylor

Abstract

Our purpose for this study was to understand the experience of instructors as they adapted to teaching online in a new interdisciplinary graduate program in health promotion studies. We conducted semistructured interviews with eight instructors and subjected the transcripts to qualitative analysis. Themes that emerged included quality of online discussions, changes in teaching styles, time issues, attitudes to online teaching, and influences on classroom teaching. We discuss the findings in relation to changes in the cognitive, affective, and managerial roles of instructors and provide the implications for enhancing instructors' contributions to online education, including using a more learner-centered approach.

Résumé

Notre objectif dans cette étude était de comprendre l'expérience des instructeurs qui ont eu à s'adapter à l'enseignement en ligne dans un nouveau programme gradué interdisciplinaire dans le champ de la promotion de la santé. Nous avons utilisé des entrevues semi-structurées avec huit instructeurs, et nous avons soumis les transcriptions à l'analyse qualitative. Les thèmes qui ont émergé traitaient de la qualité des discussions en ligne, des changements de modèles d'enseignement, des problématiques liées au temps, des attitudes envers l'enseignement en ligne, et enfin des influences sur l'enseignement en salle de classe. Notre discussion des résultats porte sur les changements de rôles cognitifs, affectifs et administratifs des instructeurs, et nous soumettons des suggestions pour améliorer les contributions des instructeurs en ligne, y compris en utilisant une approche centrée sur l'étudiant.

Introduction

Online education using the Internet is rapidly expanding in Canadian universities and offers exciting opportunities to increase access to graduate learners. Evaluation of online learning has emphasized the students'

perspective and technology-related issues, but has provided less information on the experience of instructors who undertake this new method of teaching (Dillon & Walsh, 1992; Coppola, Hiltz, & Rotter, 2001). In view of the instructors' pivotal role, gaining a better understanding of their experience is important. With the contextual change from a face-to-face classroom to that of an online environment, and the change in communication styles from oral to written, it is important to examine the effect such changes have on the instructors and the extent to which the instructors' behavior is shaped by the changes in their teaching environment.

Katz and Kahn (1978) suggest that role behavior does not occur in isolation, but is shaped by contextual factors (individual, interpersonal, organizational). Based on this theory, Coppola et al. (2001) identified three roles that instructors assume in the traditional classroom: cognitive, affective, and managerial. When classroom-based instrutors move to online teaching, they face cognitive role change. Cognitive role change refers to how instructors' mental processes adapt when communication shifts from oral to written. Affective role change relates to how instructors adjust their influence on student relationships with the instructor and other students in the absence of nonverbal cues. Managerial role change relates to how instructors must change the way they carry out class and course management (Coppola et al., 2001). The underlying assumption for all these role changes is that the shift from the traditional classroom to the online classroom significantly alters the instructors' roles in each of these areas.

The interdisciplinary Centre for Health Promotion Studies at the University of Alberta was launched in 1996 and began to offer online graduate courses the following year (Wilson et al., 2000). Health promotion focuses on enabling individuals and communities to increase control of and improve their health and well-being (World Health Organization, 1986). The Health Promotion Studies graduate program was designed to support the development of leaders in health promotion practice, policy development, evaluation, and research across Canada and to provide access to learners in their home communities. Since its inception, the Centre for Health Promotion Studies has studied the students' and instructors' experience with, and adaptation to, online graduate education.

The purpose of this article is to provide a qualitative analysis of interviews with instructors of online graduate courses in Health Promotion Studies (HPS) at the University of Alberta related to their perceptions of teaching in an asynchronous learning environment through computer conferencing. We discuss the experiences of these instructors in terms of how this mode of delivery changed their cognitive, affective, and managerial roles. We found that coincident with these role changes, these instructors adopted a learner-centered approach to teaching that places

greater emphasis on student discussion and interaction. Communication between instructors and learners is not limited by geographical or time boundaries in a distance learning course. The absence of traditional time boundaries can in turn create pressure on the instructor to spend large amounts of time interacting with the students (Gresh & Mrozowski, 2000), but can also lead to the adoption of a learner-centered approach.

Health Promotion Studies Graduate Program

Most online students in this interdisciplinary master's degree program take a course-based route in which they complete nine courses including a practicum and major project. A few have taken the thesis-based program, in which they complete six courses and a thesis. The campus and online programs have the same requirements. Most courses extend over 13 weeks, coinciding with the University of Alberta fall, winter, or spring/summer terms. As of spring 2003, 14 courses have been developed for online instruction, including several in collaboration with other universities. For details on courses see the Centre for Health Promotion Studies Web site: www.chps.ualberta.ca.

As of June 2003, 71 students have undertaken online courses toward their master's degree with 29 completing their degree requirements. About 90% of the online students undertake the graduate program on a part-time basis and complete the program over four years. With few exceptions, students are employed full time or part time while taking the program.

Communication is primarily via computer-mediated conferencing using Web Course Tools (WebCT), with one asynchronous seminar week designed to address about the same content as a three-hour seminar on campus. Students can log on to the course at their own convenience throughout the week (from home, office, library, etc.). Many courses also include one to six hours of audio-teleconferencing. Students may also contact their instructor by e-mail and or telephone if a particular need arises. In each course, students receive a detailed course guide and a package of printed learning resources for each week's online discussion. As each annual cohort is admitted, instructors and students meet on campus for a four-day orientation to the program, technology, and support systems. Instructors receive start-up and in-progress support from the online learning coordinator as needed. They may also take courses offered by the university's technical support centre.

Methodology

We used a qualitative inquiry approach involving audiotaped interviews and grounded theory analytical techniques.

Participants

Eight instructors (5 women and 3 men who met the criterion of having taught at least two online HPS courses) were interviewed for this study. At the time of the interviews in fall 2001, the instructors had taught HPS graduate courses for one to four years on two to eight occasions. Prior to teaching in the HPS program, however, none of the instructors had experience with online teaching or learning. Their disciplinary backgrounds were diverse (nursing, education, psychology, physical education, evaluation). Four were tenured faculty members in their home departments and had taught on campus, whereas the other four held adjunct appointments in the Centre for Health Promotion Studies and did not teach elsewhere.

Instructors varied in their initial attitudes toward teaching online, individual learning styles, and capacities for self-directed learning. The online program coordinator provided a common orientation to technology and online teaching. This consisted of three to four hours of demonstration, discussion, and guided practice with a focus on online conferencing, basics of WebCT software, planning for instruction, and creating a detailed course guide. Instructors were invited to participate in group discussions of online learning where instructional and technological issues were reviewed and problem-solving occurred (about 6 hours per year). Results from student evaluations were often reported and discussed at these meetings. Additional support for instructors varied according to the innovations chosen, curriculum development issues, technical needs and interests of the instructor, and his or her requests for assistance. Over the course of their online teaching, instructors varied widely in their self-directed learning and in accessing coordinator assistance, formal courses, and collegial experience.

Interview Guide

Prior to the study, the interview questions were tested for face validity with two HPS instructors who were not part of the study. Once the questions were deemed appropriate for the study, each participant was involved in a face-to-face interview that was conducted by one of the authors and a graduate research assistant. With the written permission of the instructors, each interview was audiotaped and the same set of questions was asked during each interview. Instructors were asked a total of 30 semistructured questions about their perceptions of online teaching in the HPS graduate program, with the audiotaped interviews lasting 45-90 minutes. The following is a sample of the questions that provided the richest discussion.

What are your general impressions about offering your courses at a distance?

Has the distance delivery of your courses influenced the effectiveness of your teaching?

How have you as a faculty member adapted to the distance delivery of your courses?

What differences have you made in your teaching approach during the initial delivery of distance courses and now?

Are there any distinct differences between your accessibility to on-campus students vs. distance students?

How does computer-mediated conferencing compare with face-to-face verbal communication for accomplishing your educational goals?

How has your work with distance courses been valued by your department and by the university?

Analysis Procedures

Initially, a research assistant read the transcripts and identified the major themes that were based on the topics discussed in the interviews. Then researchers read the data in hard copy separately, manually highlighting the quotes that fitted into major themes and considering alternatives. These individuals subsequently met and compared their work. Once the group had agreed on the common major themes, the data in these themes underwent additional systematic coding using NVivo qualitative analysis from which several subthemes emerged. The use of three independent coders helped ensure the trustworthiness of the data analysis process.

Results

From the qualitative analysis of the interviews, five major themes emerged with regard to the instructors' experiences with online education: (a) quality of online discussions, (b) changes in teaching styles, (c) time issues, (d) attitudes to online teaching, and (e) influence on classroom teaching. The themes and subthemes are shown in Table 1. Illustrative quotes from various instructors are provided in the description of the results.

Quality of Online Discussions

The major theme to surface from the data was related to the quality of online discussions. When compared with teaching in a face-to-face environment, instructors noted an *increase in participation* among students in online discussions as noted by one instructor's comment, "Just the degree of participation and engagement has been so much greater." A majority of instructors' comments reflected the fact that online discussions went into *more depth and richness* as shown in the following quote.

> I just found the discussion was richer on the Web. I think it was because people had more time to reflect on the question because you're not all in it

Table 1

Major Theme	Subthemes
Quality of Online Discussions	Increased Participation
	More Depth and Richness
	Decreased Spontaneity
	Increased Student Bonding
Changes in Instructor Teaching Styles	More Positive Feedback
	Less Curriculum Covered
	More Lesson Planning
	Increased Clarity
Time Issues	Increased Time Commitment
	On-Call 24/7
Instructor Attitudes to Online Teaching	Teaching Unrecognized
	Feel Invisible/Isolated
	Greater Appreciation
	Changing Attitudes
Influence on Classroom Teaching	More Depth and Interaction

> for an hour and a half thinking about it all at the same time. People went in at different points and then they reflected on each other's contributions and it provided more depth.

Although the use of an online medium for discussions increases depth, the fact that responding requires more time resulted in a *decrease in the spontaneity* in the online discussions. For example, "You lose the spontaneity, that's something that is not the same as if you were in class and doing one-to-one that way." Interestingly, *student bonding* seemed to occur more readily in the online environment as indicated in the following comment.

> A couple of them had some very difficult personal experiences, and rather than hiding and keeping those things off-line … they put them out front to the other students. The dynamics between them created this wonderful, virtual, warm, caring group.

As online discussions brought more depth, increased participation, and added bonding among students, several issues also emerged that pertained specifically to the teaching requirements of the instructors.

Changes in Instructor Teaching Styles

Instructors noted that teaching in an online environment should emphasize certain teaching procedures. For example, instructors need to give *frequent positive feedback* when communicating with online students. "The students do need to see the positive feedback after we've talked for two

hours and what are the key things." Interestingly, when compared with teaching on-campus, the respondents noted that they *covered less curriculum* teaching online, although the evaluation requirements for students were similar to those for campus courses, as reflected in the following comment: "I covered less material in the distance. I went from about 13 individual classes or modules to about six modules." As well, instructors suggested that teaching online required *more upfront preparation* and *lesson planning,* "The amount of time to prepare is greater than with face-to-face delivery. It takes more time to set up a course like this to be delivered via distance than it does to set it up in a regular format." Another issue that instructors dealt with was that teaching online required them to make an extra effort to *be as clear as possible* when communicating to their students. One instructor noted,

> It's not like the give and take in the classroom where someone doesn't understand, but the instructor says they can ask right away. So, I need to make sure it's clear when I put it up there the first time.

As online instructors were busy creating lesson plans, giving frequent positive feedback, and trying to communicate as clearly a possible with students, they began to realize that these tasks required a large time commitment.

Time Issues

Coming from an on-campus teaching setting, instructors were initially surprised at the *increase in time commitment* that was required online as evident in the following comment, "It is a big factor and one that is not very well understood on campus yet—the amount of time that is needed for these types of classes." The greatest time commitment issue for instructors was the continual "*24/7 syndrome*" to respond to students' postings and e-mails. As one instructor noted,

> Well, on campus, that's very clear. You have x number of hours per week devoted to class time, everything else is outside of that. Distance, what is class time? It's 24 hours a day for the entire term. There is no outside-of-class time.

As the data emerged, the increase in time commitment was not the only adaptation that instructors encountered.

Instructors' Attitudes to Online Teaching

In the beginning, some instructors were apprehensive and doubtful about the capabilities of an online environment as an effective delivery method for teaching. Many stated they felt their online teaching achievements were *not recognized* and valued adequately at the institutional level, "From

the university, we still feel like a poor cousin. The university hasn't shifted over all its systems and perceptions. I think the university doesn't value the [online] teaching as much." Instructors also mentioned that they often felt *invisible and isolated* when teaching online, as stated in the following comment, "Unless I come here to meet with students, nobody would even know I existed, other than I have these conversations on the Web with my students." At the same time, instructors gained a *greater appreciation* for the flexibility and options that distance education can provide.

> I think it's increased my appreciation of what it could be like for students to be in that same situation—a little isolated out there, wherever they are, depending on that medium for all of your communications, and for other instructors who are teaching also at a distance.

In the end, several instructors' attitudes toward distance education had changed from one of *apprehension to satisfaction.* As one instructor noted,

> I thought that for the particular courses that I am involved in teaching it would not be the best medium. But my view about that has shifted considerably and I actually found it really good for the two courses I'm involved in.

As instructors adapted to teaching online, they began to recognize certain online teaching techniques that they could also use to benefit their campus-based teaching.

Influences on Classroom Teaching

Many of the instructors noted that they were going to use the strengths from teaching in an online environment and incorporate them into their face-to-face on-campus courses. In particular, one instructor wanted to *bring more depth and interaction* to her face-to-face classroom discussions.

> The fact that you can conduct a discussion with everyone, having the opportunity to go in depth and interact over time as the thoughts come and develop the critical view and bounce that around over time. These are the elements I would like to bring to classroom instruction. So often in the classroom, it seems like we go quickly through things and individuals don't have a chance, necessarily, to contribute what they'd like to contribute on that spot at that time. Next class, you're onto the next topic.

The themes found in the instructors' comments mentioned above are also discussed from a role theory perspective.

Discussion

Role theory (Katz & Kahn, 1978) suggests that when the organizational context of instruction shifts dramatically, as it does when instruction adjusts from face-to-face to a distance-learning situation, a similar shift occurs in instructors' roles. Coppola et al. (2001) further claim that many of these role changes occur in three main areas: cognitive, affective, and managerial. Although comments from instructors do not directly indicate that role changes have occurred, they do suggest significant shifts in their perception of teaching and learning in cognitive, affective, and managerial domains.

Cognitive role changes relate to changes in areas of "perception, learning, information storage, memory, thinking and problem solving" (Coppola et al., 2001, p. 5) that occur as a result of a shift from oral to written language. Instructors interviewed noted that the online medium encouraged greater participation among learners as opposed to only a few discussants in face-to-face classroom situations. Moreover, they noted that online discussions tended to be more reflective and richer in content. Coppola et al. suggest that this deeper, more reflective mode of discussion translates into cognitive role changes as instructors engage in a more reflective process of responding to an increased level of participation among learners. To some extent, the medium of communication (asynchronous) is believed to contribute to this role change in that written language requires more careful and planned thought (Kennedy, 2002; Ryan, Carleton, & Ali 1999). Comments from instructors were suggestive of cognitive role change as evident in the following.

> The fact that it allows and requires that all students actively participate. People who would otherwise sit very silently are forced to voice their opinion; it doesn't even have to be an opinion, but [it] forces [you] to talk about the issue. I think talking is a big part of learning. You talk and things start to become clear in your mind. I think that's a very valuable part of distance.

As instructors shifted their cognitive patterns for communicating with their students, they were also experiencing a change in the amount of transactional distance in their instructor-student relationships (Moore, 1993).

Affective role changes relate to instructors "influencing students' relationships with the instructor and with other students in the virtual classroom atmosphere" (Coppola et al., 2001, p. 6). Moore (1993) refers to this interactive relationship in his theory of transactional distance involving variables in dialogue, structure, and learner autonomy that must be addressed by both instructors and learners in order to ensure effective learning. Instructors are considered pivotal in terms of helping students to

overcome the transactional distance in online learning environments and may, therefore, need to consider shifting how they communicate and relate to learners (McKenzie, Mims, Bennett, & Waugh, 2000). In a face-to-face environment, instructors have the advantage of the learners' facial expressions and body language to help guide their instruction. However, in the absence of nonverbal cues, instructors in this study noted the importance of providing increased levels of reinforcement, feedback, and clarity that in turn translated into increased time involvement on the part of the instructor (Kennedy, 2002). As part of this affective role change, an adjustment may, therefore, be necessary on the part of the instructor from expert to that of guide to learning resources and their effective use.

The instructors' adaptation toward a more supportive role to some extent may be regarded as a natural outcome of enhanced quality and frequency of communication among online learners (Cravener, 1999; Kennedy, 2002). In relinquishing more control to learners while maintaining structure, the online instructor may be in the position of providing closer support to learners while encouraging greater student interaction (Mahesh & McIsaac, 1999). Increasing the extent of learner control has been found also to increase the rate of dialogue, which in turn reduces the transactional distance (Saba & Shearer, 1994; Cragg, 1994). One instructor suggested an affective role change when stating, "One of the things I do differently from class is I tend to give much more positive reinforcement in the WebCT format. I make a point of letting them know it's going well; they're doing a good job." Another stated,

> At first it's frightening because you don't know how they're reacting at the other end; you can't see their faces. But when you've done it for a few years and things have gone well, you say, it's not the end of the world that I don't see them.

As instructors adapted toward a more supportive role, they also experienced an initial increase in time commitment.

Managerial role changes for the instructor in the area of course management occur at the level of the learner and the administration and relate primarily to how instructors organize and deliver online instruction (Coppola et al., 2001). Instructors described how online courses required a greater investment of time and energy than traditional face-to-face courses in both setup and monitoring ongoing student involvement. Paradoxically, according to instructors, this greater investment of time goes largely unnoticed by university administration to the point where instructors claimed they felt invisible. To overcome this invisibility, colleges and universities must take an active role in recognizing instructors who effectively promote and implement online programs. Ensminger and Surry

(2002), for example, found that instructors regarded a university's provision of rewards and incentives, along with adequate resources, as two important considerations in facilitating the implementation of online instruction. Recognizing and responding to these needs may assist universities in promoting and recognizing the contribution of online instructors. One instructor expressed the following, which suggests managerial changes.

> The amount of time to prepare is greater than with face-to-face delivery. It takes more time to set up a course like this to be delivered via distance than it does to set it up in a regular format. Once it's set up, the time commitment shifts from preparation to managing the students and ensuring they are on track and understand where they should be every week.

As instructors noted a managerial change in the increased amount of time required for lesson planning, they also noticed the large time commitment necessary for answering student inquires.

In discussing the various cognitive, affective, and managerial adjustments in adapting to an online learning environment, it is evident that the most salient change that occurs is in the area of communication. The shift from oral to written language is more time-intensive for instructors. De-Sanctis and Sheppard (1999) concur that in an online, asynchronous course, the extent of interaction between instructors and learners is not limited by time and place. This in turn has the potential to intensify the time commitment to the point where instructors may feel they are on call 24 hours a day, seven days a week, with little outside recognition of this commitment.

In an online course there are three types of interaction: learner-learner, learner-content, and learner-instructor (Moore & Kearsley, 1996). A constructivist approach maximizes the extent of learner-learner interaction, and this is considered key to maximizing students' learning potential. Kennedy (2002) goes further in suggesting that not only is learner-learner interaction a valuable part of the online learning experience, but the distance education format is particularly well suited to engaging in this type of interaction. Comments from health promotion instructors reflect high levels of learner-learner interaction through active student involvement in online discussions. Moreover, these discussions were found to be deeper and more reflective, covering a broader range of issues. Encouraging greater interaction among learners not only enhances student learning, but also places the instructor in a more supportive, facilitative role, which results in more efficient use of instructor time (Udod & Care, 2002). Although this may eventually be the case, instructors have not yet indicated that this approach takes less time.

Instructors' adaptations in cognitive, affective, and managerial areas may not necessarily occur intentionally. In fact research suggests that role changes may not only be unintentional, but also gradual in response to change in the types of interaction. For example, it is important to recognize that most of the instructors interviewed had little prior experience with online course delivery. This may help to explain that although cognitive, affective, and managerial role changes were indicated by their comments, these were not necessarily defined. Further years of experience may help to increase confidence and communicative competence in online instruction (Berge, 1995). Instructors may also benefit and change from having educational support in moving from being the deliverers of learning material to being guides in the process of learning (Morris, Buck-Rolland, & Gagne, 2002).

Implications

The findings of this study, together with those from ongoing formative evaluation of online delivery and instructional approaches, have had important implications for the HPS graduate program. Several aspects of instructor recruitment and support strategies have been changed as a result. In addition to searching for individuals who know content, instructors with interest in learner-centered and constructivist approaches are sought. Interest in adapting teaching approaches that work for the learner is more important than knowledge and skill with technology. Potential instructors are sought who will take the time, particularly during the first course offering, for the experimentation, reflection, and support that will make their work satisfying and sustainable. The online program coordinator communicates more accurately about the challenges, substantial learning time and heavier than normal workloads for online courses, and the need to think differently about teaching and learning. More scheduled support is provided at an early stage with the aim of more rapidly increasing the efficiency, effectiveness, and sustainability of our instructors.

Sustainability issues are being addressed in several ways. Instructors are asked to anticipate a three- to five-year commitment, so the time invested in learning and adapting will pay greater dividends and teaching will grow to be more satisfying. In our instructional designs and course guides, communication expectations have been reduced and clarified. Agreement has been reached to limit the number of instructor and student postings per week. To combat the 24/7 syndrome and the associated stress actively, students are advised that e-mail responses may take a few days and that instructors are not expected to post over the weekends or during break periods.

Support for instructors during first course delivery has also changed in response to our findings. Where possible, issues are discussed and assistance is offered in advance. Instructors are observed more closely so that support may be provided earlier in the developmental process. Instructors are also supported through peer group process. They meet as a group with the online program coordinator to share challenges and solutions to make teaching online more effective and enjoyable. Positive feedback and support for instructors are increased by sharing praise from students in group meetings, other Centre meetings, and through letters of reference for awards. At meetings of the instructors and program coordinator, group processes are used to find ways to make the workload more manageable, achieve balance, and create strategies for long-term solutions.

Advocacy for support at the institutional level continues. More opportunities are being taken to be visible on campus in general and among our colleagues in health fields in particular. The Centre for Health Promotion Studies has joined with other groups to advocate for the foundational support that is needed to make online learning initiatives successful. Contributions on an institutional level include evaluation and pilot testing of new asynchronous and synchronous courseware, development and evaluation of bookstore and library policies and practices, and collaborating on the creation of resources to support online learners.

In summary, because online teaching and learning is significantly different from classroom teaching and learning, it is important to take the time to recruit appropriate instructors, orient them effectively and realistically, and support them as they adapt to the new environment. Noted benefits to instructing on line include the ability to level the communication playing field with students, go deeply into discussion, and use more learner-centered approaches. Participating instructors indicated that the main problems in teaching online were isolation, overwork, and under-recognition. Teaching online can have a positive effect on classroom teaching, helping instructors learn to organize in advance, see the learning environment through the learners' eyes, anticipate challenges, and design supports for learners. At the university level, advocacy is needed for the support of online teaching and recognition of instructors. Adequate funding and policy changes are required to ensure that online teaching is sustainable from both financial and human resource perspectives.

Future Research

Further research is needed to examine more closely the effects of learner-centered or constructivist approaches on the role of instructors in online education. There is also a need for better understanding of students' adaptation to online learning over time, and this is the subject of current research in the HPS program. Because there is an interaction between

instructors and students as the instructor adapts to the new environment, students may need to adjust, which in turn can affect the instructors' perceptions. As a result, more research is needed to understand this transition better. Finally, there is a need to examine the effects and comprehensive long-term costs and benefits of providing sufficient institutional support for online teaching and learning.

Acknowledgments

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Douglas Wilson is Professor Emeritus in the Department of Public Health Sciences and the Centre for Health Promotion Studies. He has experience in health promotion, evaluation, and academic administration.

Stanley Varnhagen is manager of evaluation research in the University of Alberta's Academic Technologies for Learning and has evaluated a number of instructional technology projects.

Eugene Krupa is the online program coordinator in the Centre for Health Promotion Studies and prevention specialist for the Interior Health Authority of British Columbia.

Susan Kasprzak is an evaluation researcher with Academic Technologies for Learning at the University of Alberta.

Vali Hunting is a fourth-year undergraduate student who is fulfilling an internship as a research assistant with Academic Technologies for Learning at the University of Alberta.

Anna Taylor is an adjunct assistant professor in the Centre for Health Promotion Studies at the University of Alberta.