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The Challenges of Blending a Face-to-Face Laboratory Experience with a Televised Distance Education Course

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ABSTRACT

This article describes the practical challenges faced by instructors who must blend a face-to-face laboratory experience into a distance education course. This issue is discussed in the context of an ongoing kinesiology and health course that includes a mandatory physical activity laboratory experience. The challenges that have arisen around this mandatory laboratory experience over the six-year period that this course has been televised are identified and discussed.

RÉSUMÉ

Cet article décrit les défis pratiques auxquels les instructeurs doivent faire face lors de l'intégration d'une expérience de laboratoire en face-à-face à l'intérieur d'un cours d'éducation à distance. Cet enjeu est discuté dans le contexte d'un cours actuel en kinésiologie et en santé qui compte une expérience de laboratoire obligatoire en activité physique. Les défis entourant cette expérience de laboratoire obligatoire sur la période de six ans au cours de laquelle ce cours a été télévisé sont identifiés et discutés.

INTRODUCTION

Distance education classes are becoming more popular, and many classes could potentially be offered in the distance education format. Consequently, it is important for educators, designers, decision makers, and other invested parties to be aware of the challenges involved when a face-to-face course must be turned into a distance education course. Even more specific and unique challenges exist when a face-to-face, mandatory laboratory component accompanies a televised course and when location and student demographics limit the use of Internet activity. Arguably, by documenting the challenges encountered in such a case and the alternate practice applied, others can evaluate the time and financial feasibility of this blended-delivery format.

Some courses have components that are difficult, if not completely impractical, to deliver at a distance. The course discussed in this article, Kinesiology and Health Studies 139, included a physical activity laboratory component that presented challenges when the course was converted to a distance (in this case, televised) delivery format. Initially, the component was delivered in a number of off-campus locations in a face-to-face format; however, the blended format raised several challenges, which are discussed in this article. Practitioners elsewhere facing similar challenges may find this discussion of interest.

Kinesiology and Health Studies 139 (KHS 139) is a required course for students in the Elementary Education Program at the University of Regina.

Course Description: This course will examine theory relating to the content and methodology of movement education as it relates specifically to the elementary school child. The emphasis will be on understanding issues related to children's health and the elements involved in movement: body awareness, space awareness, effort qualities and relationships. The student will gain knowledge of the above through both theoretical *and practical work*. (LeDrew, 2009a. Italics added.)

As of the 2004 fall semester, KHS 139 was also offered in a televised distance education format through the university's Distance Learning Division. The purpose of this article is to describe the challenges of blending a face-to-face physical activity laboratory (lab) experience with a televised distance education course. As with the on-campus lab experience, mandatory attendance in this face-to-face lab is a course requirement, and 20% of a student's final grade is based on completing assignments from the lab experience.

When I (June LeDrew) was first approached about adapting the KHS 139 course delivery method to a televised format, as the primary instructor of KHS 139 I knew that the physical activity lab experience would need to be transformed. Although the on-campus lab experience has evolved during the 20 years I have taught the course (e.g., from 4 hours per week for lab experiences to the current 2 hours of classroom instruction and 1 hour of lab experience per week), several unique factors had to be considered to ensure that congruencies and academic integrity between the two methods of delivery were maintained.

Distance education has been defined as "the formal delivery of instruction in which time and geographic location separate students and instructors" (Miltiadou & Savenye, 2003, p. 2). Television-based distance education courses remain a popular alternative to Web-based courses, particularly in rural areas where access to the Internet is still problematic. The mode of delivery for televised courses consists of a home (broadcasting) site and multiple receiving sites; the designated receiving sites usually range in number from 1 to 20, and enrolment ranges from 10 to 100 students. In areas that have limited computer and World Wide Web services, reliable courier service is critical for information exchange (i.e., handouts and assignments) (Rovai & Lucking, 2003). Although research has indicated that design and pedagogy are more important

than the type of media that is used to deliver distance education courses, some types of media are more easily adapted than others to the behaviour and preferences of experienced face-to-face instructors (Rovai & Lucking, 2003).

Instructors in a wide array of disciplines are interested in offering authentic activities that mirror the experiences of real-world practitioners/problems as a way to engage students (Bennett, Harper, & Hedberg, 2001). To help them learn the course material, experience real-life, developmentally appropriate activities for children, and collaborate with their colleagues, students enrolled in KHS 139 must also enrol in an accompanying face-to-face physical activity lab. This lab offers students interested in children's health the opportunity to personally experience practical concepts and ideas, supported by the theoretical knowledge shared during lectures. Student engagement in and feedback on the lab experience during on-campus delivery has always been positive, so it was important to attempt to provide a similar learning environment for the televised delivery of the course.

WHY A FACE-TO-FACE LAB?

To ensure that off-campus students experience the same level of engagement as their on-campus cohort, all three types of classroom interactions—student-content, student-instructor, and student-student—have to be included. However, this process can pose a challenge for an online lab experience. Since some of the students who select televised courses may do so because they do not have computers readily available, online media may not lend itself well to lab delivery. And, due to the (albeit minimal) risk of physical injury that could occur, with or without an instructor on site, videotaping the labs and mailing the tapes to students and then expecting them to complete the physical activities on their own may neither be feasible nor lend itself to the optimal types of interaction between student, instructor, and/or course materials that a physical activity lab offers. Can you imagine students creating, experiencing, and viewing a physical dance sequence online as part of a project? Can you imagine yourself, as the instructor, exploring the developmental throwing patterns of early learners online? How would “play” be experienced physically online? Although not impossible, evoking physical experiences with the body via the online medium may create more challenges than the alternative of organizing face-to-face experiences for students.

Another equally important consideration for the face-to-face delivery of the KHS 139 lab in the televised format was student demographics. Over 90% of the students who have registered in KHS 139 during the 20 years I have instructed the course have been women, and I would suggest that few of them had positive experiences with physical activity (LeDrew, 2008). It was important, then, that the women in this course, as potential teachers of children, be able to experience physical activity as it is presented within the context of the KHS 139 lab (e.g., developmentally appropriate physical activities, active healthy living, dance, play, fun) and not as it is presented by popular culture (e.g., professional, competitive, predominantly male sport) (Burton Nelson, 1994). In this way, the women, and the few men, who enrol in the course benefit from participating “together” in this female friendly (e.g., co-operative, provides connection to others, intrinsically motivated, verbally centred) physical environment (Lenskyj, 1994).

THE CHALLENGES OF DELIVERING A FACE-TO-FACE LAB

Geographical Distance in Saskatchewan

The purpose of televised courses is to make university credit courses accessible to people who wish to continue their education but don't live close enough to a university to attend in person. Televised courses at the University of Regina are provided with satellite technical assistance by the Saskatchewan Communications Network (SCN). According to the University of Regina's *Student Guide to Televised Courses, 2008-2009*,

these courses use a combination of televised lecture, live discussion periods and specially developed course outlines to deliver ... courses to over 120 potential receiving or learning sites throughout the province. This method of delivery is convenient and flexible for adult learners who experience difficulty in participating in courses in Regina because of distance, employment commitments, home responsibilities or other circumstances. The satellite technology used helps "bridge the distance" between the university instructor and the student.

Frenette (2002) has described Saskatchewan's geographical distance as a potential barrier to students' university participation:

[In] Canada, as a whole, 19% of the population live beyond 80 km of straight-line distance from a university (beyond commuting distance for most) and 13% live between 40 and 80 km from a university (perhaps beyond commuting distance for many). These aggregate numbers mask the tremendous variations across provinces. More than 50% of Saskatchewan residents and more than 40% of Newfoundland residents live more than 80 km from a university. Conversely, a much smaller proportion of the population in Ontario (9%), Nova Scotia (13%) and Prince Edward Island (14%) live beyond 80 km from a university. (p. 2)

Minimal Lead Time for Lab Site Selection

Although each year the *Student Guide to Televised Courses* clearly states that a lab component exists for KHS 139, inevitably, each year some students are unaware of this requirement. Furthermore, from 2004 through 2008, the designation of course lab sites across the province was not determined until the first or second week after the course began in September and the locations of the course registrants were known. Since KHS 139 is the only televised course with a mandatory face-to-face lab requirement offered by the Distance Learning Division, many students did not learn until after they registered if they would take part in the lab experience in their hometown or have to travel to another town or city. This issue of location was complicated by the fact that each lab had to have at least four students registered in it. A lab with less than four students was unacceptable to the Distance Learning Division, as it was not considered cost efficient and did not provide the experience considered necessary to maximize student learning—playing a game or dancing alone does not encourage different student interactions.¹ Once televised receiving sites were determined through student registration, labs were organized for sites where four or more students were registered.

Students whose hometowns were not designated as a lab site were then informed of the location of their lab. In my experience, the realization that the televised class has a face-to-face

physical activity lab resulted in, on average, two students withdrawing from the course each semester; whether this circumstance was related to the apprehension of having to engage in public physical activity or having to travel a distance to a lab site is unknown.

Teaching Assistants at Remote Sites

Since the primary instructor cannot attend and teach all face-to-face labs, from 2004 to 2008 teaching assistants were hired locally to deliver the three monthly lab experiences. For consistency, a lab manual was developed for teaching assistants (LeDrew, 2009b), and conference calls between the primary instructor and teaching assistants were held the day before each lab's delivery. For the first five years that this course was delivered, the same person was frequently hired at a particular site if a lab was to be delivered at that site. In other cases, due to the earlier-mentioned time constraints on lab-site selection, hiring assistants occasionally proved problematic when there were no applicants for positions near the televised receiving site. Local contacts had to be asked to assist in the search for personnel and, admittedly, there were a few instances in which a time-sensitive hiring process resulted in teaching assistants without expertise, or without the time or inclination to gain the expertise, being hired. These situations became obvious during the semester and were confirmed by comments made in student course evaluations.

Physical Health and Mobility of Students

Because the physical health and mobility of students registered in KHS 139 vary as widely as in the general population, the instructor and teaching assistants must know about any physical limitations or challenges that individual students may have before they participate in the lab. Therefore, at the first lab, students are required to complete the Physical Activity Readiness Questionnaire – PAR-Q (Canadian Society for Exercise Physiology, 2002). Although the completed questionnaire does not on its own suggest a student's "readiness" to physically participate, the responses indicate whether someone has a physical limitation (e.g., heart condition, dizziness, bone or joint problem). Students are also informed that at any time, and without penalty, they may physically withdraw and instead observe and take notes on the lab activities. The students' physical health status does influence the types of activities performed in the lab, and for this reason (and others), the primary instructor keeps her standard first aid, cardiopulmonary resuscitation (CPR), and Automated External Defibrillation (AED) training updated. Although having to travel to a lab may prevent some students from registering in KHS 139, especially given the current trends for adults leading sedentary lifestyles (Starky, 2005), unfortunately, lower registration in the course may also occur because of the lab's "physical activity" requirement.

Depletion of Local Market

The depletion of students in a local market has been a natural challenge for face-to-face lab site consistency. For example, the first time KHS 139 was offered in 2004, 15 students were registered in Meadow Lake (600 kilometres northwest of Regina, with a population of just over 5,000), which justified the administrative time and costs involved in organizing a lab locally. In subsequent years, however, much lower registration numbers (2, in 2005 and 2006; 0, in 2007; 3, in 2008; and 1, in 2009) required students from Meadow Lake to drive once a month, for three months, to North Battleford (a 190-kilometre trip, one way) for a four-hour early evening lab or, more recently, to Prince Albert (a 255-kilometre trip, one-way) once in November for an all-day lab on a Saturday. Clearly, these distances could limit inclusion and/or registration in the course due to lack of desire, financial restraints, time, and/or weather driving conditions. Depletion of the local market has been observed at other sites that have traditionally held a face-to-face lab.

FINAL REFLECTIONS

With 120 potential SCN receiving sites, it is virtually impossible to anticipate where face-to-face labs can be arranged to accommodate the most students with the least inconvenience. On average, over the six years that KHS 139 has been delivered through the televised format, the number of off-campus receiving sites where labs have been located has been steady, but varied, at about 12.

Between 2004 and 2008, an average of 96 students registered in each of the fall-semester televised classes offered at the University of Regina. The five-year trend in enrolment showed a drop from an average high of 108 students in 2004 to 85 students in 2008. KHS 139 had the lowest five-year average enrolment (72), which may have been a direct result of the mandatory face-to-face physical activity lab.

Currently, students pay no additional cost for the lab experience since it is considered part of the 39-hour course. However, although some financial savings result from not running a televised class on the lab dates (i.e., SCN hourly charge and technical support in Regina), there are administrative costs involved in hiring additional teaching assistants, providing them with the course package and lab manual, and renting or booking appropriate off-campus facilities.

In 2009, a change was made in the delivery of KHS 139. That year, site-specific face-to-face labs were designated prior to student registration. Three labs were offered, and upon registering for the course, students were required to register in the lab of their choice. One 4-hour lab² was held once a month (three labs in total) at the Regina home site and taught by the primary instructor; no televised class was offered on those evenings. An 8-hour face-to-face lab was offered on a Saturday in Prince Albert (taught by the primary instructor), and another 8-hour lab was offered on the following day, a Sunday, in Regina. The Sunday lab was taught by an experienced sessional instructor from the University of Regina, and the primary instructor (having driven 400 kilometres from Prince Albert that Sunday morning) attended a portion of this lab. This three-lab format gave the primary instructor the opportunity to personally meet with all of the students in the televised course and gave the students an opportunity to ask questions of the instructor, face-to-face, before the assignment and final examination due dates. Although the Saturday day-long lab in Prince Albert was referred to as the lab for students in the northern part of the province and the Sunday day-long lab in Regina as the lab for students in the south, not all students based their lab selection on this premise. Offering the day-long labs in designated sites in 2009 did not significantly alter the average off-campus student registration numbers for KHS 139, however.

Clearly, there are challenges to blending a face-to-face lab with a televised course in a province like Saskatchewan, with its dispersed population. Nonetheless, a consistent theme has been gleaned from student evaluations of KHS 139 during the past six years: overall, the students enjoy the lab immensely and are able to translate the knowledge they gain from the televised lectures to their practical face-to-face lab experience.

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ENDNOTES

1. Once, under special circumstances, a lab site was created with only two students. The hired teaching assistant (a local elementary teacher) offered to bring children from her class to augment the lab numbers. This format was eventually deemed unworkable due to liability issues (i.e., timely return of parental consent forms required by both the university and the local school board).
2. The designated contact hours are different for the lab offered once per month (4 hours x 3 months = 12 hours total) compared to one 8-hour, all-day lab; however, our experience has been that the once-a-month lab in Regina has more students, hence more time is needed for content delivery and assessing of assignments done within the lab.

BIOGRAPHIES

June LeDrew, a professor in the Faculty of Kinesiology and Health Studies at the University of Regina, works with community-based groups to improve the health of children. She has taught KHS 139 Movement Education on campus, off campus, and in televised formats during her 22 years at the university.

June LeDrew, professeur de la Faculté des études en kinésiologie et en santé de l'Université de Regina, travaille avec des groupes communautaires pour améliorer la santé des enfants. Elle a enseigné le cours d'éducation du mouvement, KHS 139 Movement Education au campus, à l'extérieur du campus, et sous formats télévisés au cours de ses 22 années à l'université.

Bonnie Cummings-Vickaryous is currently working on her master's degree in Kinesiology and Health Studies in the area of Sport and Recreation Management, with an interest in special populations. She has worked as a research and teaching assistant in the televised delivery of KHS 139.

Bonnie Cummings-Vickaryous fait aujourd'hui sa maîtrise en kinésiologie et en santé dans le domaine de la gestion des sports et loisirs, avec spécialisation en clientèles particulières. Elle a travaillé à titre d'adjointe à la recherche et à l'enseignement dans la livraison télévisée du cours KHS 139.