

Integrating Onsite and Online Learning in a Teacher of the Deaf and Hard of Hearing Education Program

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Abstract

Teacher education programs with a specialized focus, such as preparing candidates to become teachers of the deaf and hard of hearing (D/HH), continually face the challenges of providing quality programs with small numbers of students and faculty. Online learning may offer opportunities for programs to maximize student access to such programs, enhance instructor effectiveness and provide new ways for students to learn and interact through technology. However, the challenges in teacher of the deaf/hard of hearing education program are in many ways unique, and require faculty to significantly adapt the few models of online teacher education that exist. This paper describes the experiences of a Canadian teacher of the deaf/hard of hearing education program in incorporating an online learning program into its existing onsite program, creating cohorts of traditional and online learning students together in the same class.

Keywords: online learning, teacher education, deaf and hard of hearing

Introduction

Although online course offerings at the university level are expanding exponentially, this has not been as true in the case of teacher education programs. Abrami, Bernard, Wade, Schmid, Borokhovski, Tamim, Surkes, Lowerison, Zhang, Nicolaidou, Newman, Wozney & Peretiatkowicz (2006), in a review of documentation of e-learning programs in Canada, noted that online learning programs are overwhelmingly focused on general education, with little or no representation in areas such as special education, or issues of gender, ethnic, race, religious, or aboriginal status. They found that most publications had little discussion of pedagogical issues, questions of blended or hybrid models, the applicability of online learning for professional training, the use of technology for virtual simulations and the role of online learning. The authors note that developers need to consider whether there are pedagogical advantages to the implementation of technology rather than simply throwing technology at a problem by asking "To borrow an idea from the film "Field of Dreams": if you build it, will they come?"

Teacher education programs must ensure that students will come, and we would argue that maximizing the possibilities of online learning is becoming increasingly crucial to universities' abilities to continue to offer small, specialized, professional education programs. There is a pressing need for well-prepared educators in these areas given the increasing numbers of ESL students and student with disabilities included in mainstream classrooms (Planty, Hussar, Snyder, Kena, Kewal Ramani, Kemp, Bianco, & Dinkes, (2009). Preparation programs for teachers of deaf and hard of hearing (D/HH) learners are a prime example of this type of program.

With the implementation of universal newborn hearing screening programs, intensive early intervention, improvements in amplification technologies, and greater possibilities for mainstreaming, the need for teachers of the D/HH is anticipated to grow. However, given that hearing loss is one of the lowest incidence disabilities (Ontario Ministry of Education, 2006), it remains a small field relative to both general teacher preparation programs, and other specialized programs such as learning disabilities or English as a Second Language. The challenges of offering such a specialized program are daunting, given the breadth and depth of material to be addressed (requiring instructors from many diverse areas), the need for intensive teaching practicum (which must be coordinated despite shrinking numbers of self-contained classes and greater numbers of students placed in their home schools across a large geographical school district), and the fact that the field often attracts teachers with hearing loss themselves, who require accommodations within the teacher education program.

These programs are not offered at most universities in Canada, and currently there are only 4 programs for the entire country, located in 3 provinces (Ontario, British Columbia and Nova Scotia), with two of these accepting students only every second year (Mayer, Akamatsu, Jamieson, Leblanc, & Billy, 2009). In the United States, a review of the Council on the Education of the Deaf website indicates that only 15 states offer a teacher of the D/HH preparation program at more than one college or university (www.deafed.net). Teachers in the majority of Canadian provinces must either relocate to one of the existing university locations in Canada or the United States, or attempt to find online learning opportunities, which must be programs recognized by the relevant certifying licensing boards or professional organizations in the teacher's jurisdiction.

The program at York University in Toronto is the largest of the Canadian programs and has been in existence since 1989 as a full-time, onsite, one year program. Applicants to the program are required to be teachers licensed by the province's regulatory body, and classes are typically made up of a mixture of new graduates from pre-service programs, and experienced teachers interested in pursuing a new career direction. In 2002 the program was restructured to allow students to enroll part-time; however, classes were still held on-campus, limiting part-time enrollment to teachers living within commuting distance for evening classes. The part-time onsite program required 3 years to complete since courses were rotated as evening classes.

In terms of the target audience, York's online learning program has much in common with teacher education programs targeting those teaching in rural settings, particularly in areas with sparse populations. Dell, Hobbs & Miller (2008) note that students most interested in teaching in rural areas are adults who have families and community ties which do not allow for much mobility. In the case of the part applicants at York, the vast majority are experienced teachers who have developed an interest in educating learners with hearing loss, but whose employment, community and family commitments make full time study impossible. These teachers are generally unable or unwilling to take a year's leave of absence to complete the full time certification program, and even if they live within driving distance, find completing an onsite program difficult even if courses are offered in the evening. However, they often represent ideal candidates for a change in career path to D/HH education because of their wealth of teaching experience and knowledge of their local schools, school board and communities. An online learning, part-time option becomes a very attractive option for them.

While York University remains committed to an on-campus program for full-time and local part-time students, an onsite program is not sufficient to meet the demands of the field given the growing need for teachers of the D/HH (especially in more rural areas where there are no schools for the deaf), the small number of training programs, and the challenges of serving a large geographical area such as Canada. The decision was made to launch an online learning component to the program, and as of September 2008, part-time students accepted into the program have the option of attending onsite classes and/or doing courses online. Part-time students are accepted as a cohort; that is, these students complete courses in the same order, so that foundations courses are completed first, and electives completed last.

Challenges to Implementation

Increasingly, universities in the United States offering teacher of the D/HH education programs are restructuring their programs as solely synchronous online learning (Slike & Berman, 2009; Slike, Berman, Klein, Rebilas & Bosch, 2008). In the case of the York program, however, the online learning students need to access the same program as the onsite students, creating an additional set of challenges. Funding for the program at this point is tied to the continued offering of the onsite program, and financial and faculty size constraints make it impossible to offer separate onsite and online programs.

Professional Certification Programs via Online Learning

Professional certification programs provide more challenges for online learning applications than do programs or courses which are more easily delivered by a text-based model with discussion forums. As such, programs for teachers of the D/HH share these challenges with other professional certification programs. Because such programs require students to not only learn course content, but master it to the level of professional practice that meets the standards of licencing bodies, it is crucial, yet difficult, to assess online learning students, whom instructors may never meet. It is essential to incorporate learning activities such as case studies, student presentations, and “hands-on” activities, which do not lend themselves well to a text-based online learning format. It may be possible to provide effective online learning for some skills which can be demonstrated by instructors through video, after which students can complete hands-on assignments via video (learning how to check a hearing aid, for example). But there are also aspects of professional programs that cannot be delivered online (such as practicum), although universities can and do develop partnerships with local professional communities to organize, implement and supervise practicum locally.

Despite these inherent difficulties, the benefits of online learning options for professional certification programs are clear, with the foremost being geographical accessibility and convenience. However questions about the ability of online programs to maintain academic integrity, provide equivalent learning and keep student engaged without face to face contact continue to exist (Knapczyk & Hew, 2007; Lin, 2009; Evans & Powell, 2007). Academic honesty issues also arise and need to be addressed, from the standpoints of both the universities and the licencing bodies.

Synchronous versus asynchronous learning

One of the first questions to be answered is whether it should be synchronous or asynchronous. While learning effectiveness for students must be at the forefront, universities must also consider issues of costs to the university (startup costs for hardware and software, and ongoing costs for upgrades, bandwidth, etc.), costs to the students (computer hardware, software and internet requirements), student/instructor training needs, ongoing IT support for students and instructors, and student/instructor comfort levels with the format being used (Care & Scanlan, 2001).

These issues were particularly relevant at York University where the Faculty of Education does not offer any pre-service or graduate courses online. Therefore, there were no precedents, existing infrastructure or faculty experienced in the delivery of online teacher education programs.

There are many reasons why synchronous learning may be the preferred delivery model for D/HH teacher education programs. Levin, He & Robbins (2006) noted that synchronous models offer more immediate feedback, provide a better simulation of a real classroom, and are more convenient than an asynchronous course. It was also the opinion of instructors that teaching “live” was the best pedagogical choice. However, it was not possible to implement a synchronous approach as the sole strategy in the York program for several logistical reasons.

Part-time students choose this option overwhelmingly because they are continuing to teach full time, and are not available during the day to participate in a synchronous online program. Therefore, a synchronous model which included both full and part time students would need to be taught entirely in the evenings or on weekends, an option which was not attractive to either full-time students or faculty, and which would likely compound commuting problems for both students and faculty, particularly in winter months.

In addition, while the York program is the largest of its kind in Canada, it is a very small program in the context of the university, and so cost effectiveness was a primary consideration. Other deaf/hard of hearing teacher education programs in the U.S. do use synchronous learning models, but at significant cost. Costs can be particularly high given the generally greater percentage of students in the class who have hearing loss themselves, and who therefore require accommodations such as sign language interpreters or captioning. Ensuring that these are captured synchronously as well as the course instruction is complicated technologically and is extremely expensive.

On the other hand, an entirely text-based asynchronous model was rejected immediately by the instructors at York. Course content was felt to be too difficult to be learned via reading text alone, even with the extensive use of discussion forums. In addition, development of a text-based online learning program would then essentially create two parallel education programs (an onsite program for full time

students and a text-based online learning program for part time programs), an option which is simply not sustainable in terms of faculty membership or workload.

Description of the York Program

Using a model already in existence at York University as a starting point (Kehoe, 2004), the decision was made to base the online learning program on audio and video capture of the classes already being attended by full time students. While any part-time students who could attend class in person would be able to do so, those part-time students at a distance or whose schedules do not accommodate daytime classes would be able to view the class after it was finished.

One of the primary purposes in choosing this online learning model was to attempt to maintain access to classroom discussions, and to capitalize on the dynamic nature of the full time program already being offered. While O'Neal (2009), in her comparison of discussions in traditional vs online classes, noted that the quality and quantity of discussion was similar "when specific content-related questions were provided to structure the discussion", the richest learning in a classroom often originates from unstructured questions and discussions. The discussions which arise from questions and comments during a live class are crucial to learning in this field, and cannot be anticipated in a traditional text-based format.

This is particularly true in the York program, where a number of part-time students are working in the field as they complete the program. These teachers work with D/HH students every day, and always have interesting, pertinent and at times, difficult, questions and comments. These questions could be addressed either in class (when part-time students are present in person) or could be taken up at the next class when online learning students asked them via email or in the discussion forums. Discussing these issues during class time not only allows better integration of the information for part-time students (who will return to their classrooms the next day to implement suggestions and ideas), but also allows full time students (who are often new teachers, or new to the field), exposure to the real-life issues, problems, challenges and rewards that they themselves will face after graduation.

After reviewing webcasting options, a technology called ePresence was selected for the York program (<http://epresence.kmdi.toronto.edu/>). This open source webcasting option was developed at the University of Toronto, in Ontario, Canada, and enables both live and on-demand lectures. This option provides capture of the videotaped lecture and PowerPoint slides, or alternatively, videotaped capture of the instructors and screen projection, as well as the ability to add the real time captioned script to the video presentation for students with hearing loss. A simple video recording setup was used, with a Sony HDRXR2000V video camera mounted on a tripod, which fed output directly to the ePresence hardware. To ensure confidentiality, videotaping was done from the back of the classroom and captured only the instructors' faces.

Because the classroom had previously been redesigned to meet the needs of the program (particularly to address accommodations for students with hearing loss), the room was already equipped with acoustical modifications, a sound amplification system, two wireless instructor microphones and 12 desktop microphones for students. This ensured that everyone's voices were picked up and amplified, and therefore recorded clearly. During the first year of implementation, recorded lectures were hosted on the ePresence server, and could be password protected if desired.

All online learning programs require course websites and Moodle is the website platform chosen by York University (www.moodle.org). Moodle is an open source, course management system which contains many of the standard features of course website packages, such as options for using Wikis, online quizzes, discussion forums, grades management, etc. Moodle is used throughout York University, across Canada and the US, and across the world, with approximately 40,000 registered sites. Initially, course websites were developed only for the first 2 courses offered online; currently, Moodle sites for all courses are in development. Links to the recorded ePresence lectures were located in the Moodle website for each course, allowing easy access to both course materials and ePresence lectures.

In this field (because there are links to both health-care and education) there are many supplementary online materials and resources available. Online resources such as those offered by Audiology Online (www.audiologyonline.org) offer learning opportunities on a wealth of topics, often presented by leading researchers and practitioners in the field. Course directors have also taken advantage of online learning modules available through cochlear implant manufacturers or nonprofit organizations such as The Ear Foundation (<http://www.earfoundation.org.uk>). These resources, which offer comprehensive training modules on a wide variety of topics related to early intervention for children with hearing loss, have

proven to be an invaluable way to enhance learning for our students. For development of sign language skills, the introduction of Signing Online has been found to be both effective and popular with students (www.signingonline.com)

Online resources provide valuable information for a variety of skills taught in class. YouTube, for example, has proven to be an amazingly effective resource for providing access to video clips of children with hearing loss and their parents discussing topics such as communication methodology and mainstreaming challenges, or for demonstrating activities such as speech, language or auditory verbal, therapy. Students are required to learn a significant number of new skills (such as analyzing a speech or language sample) which are best learned through practice; using the resources available on the Internet allowed instructors to post a number of practice activities on the website to be completed as needed by each student. This allowed more in-class teaching and discussion by reducing the number of activities done during class which could be done as effectively or more effectively by students at home.

Insights after One Year of Implementation

Student comments on the new online learning were generally positive. One student commented "I have completed many online courses and I think this format has been the better one in terms of presentation. Most of the ones I have done were online with only readings and assignments - no class to watch. It is nice to be "part" of those learning moments in class that you don't otherwise get in online courses. It is definitely a heavy load to watch all of the classes online but I definitely get more out of it than just reading articles." Another commented "Having the powerpoints posted has been great as well. I can easily follow along with the lecture and it really feels like I am there."

In 2008-2009, there were 7 online learning students and 12 onsite students; both groups performed similarly in terms of range of marks, although the highest marks in the course were obtained by 3 of the online learning students. Online learning students did note that they found it to be important to keep up with the weekly lectures, but that "the course flowed quite smoothly as a fully on-line course - there was a real rhythm to it (once I got into it)."

An intensive, on-campus orientation week prior to the start of the university academic year was required for all new full and part-time students. This week included orientation to the program, and introductory classes in Language and Literacy Development. This provided the part-time students with the opportunity to meet most of the faculty and students in person, to ensure that they had the necessary hardware, software and access code requirements for online learning and to participate in the first part of the first course onsite with the other students.

The addition of an orientation week prior to the implementation of online learning has proven to be an effective strategy to kickstart the program, and provide the opportunity for almost a full week's immersion focusing on foundational issues in language and literacy development. Orientation week was particularly effective in the summer of 2008, since it provided the part-time students an opportunity to meet each other face to face which later facilitated the development of an online community, and to resolve administrative issues. It also allowed the two full time faculty members who team teach the course to get a feel for the dynamics of the class and a sense of how a team-taught class would work best when viewed online.

Advantages for Onsite Students

The original purpose of the online learning initiative was to make the program more accessible to part-time students who could not attend onsite classes. However, it quickly became apparent that online learning activities would be beneficial for students attending onsite classes as well. The most obvious was the addition of course websites, which were not previously a feature. This year, full and part time students had access to all of the course website materials - course outlines, readings, resources and links to useful websites online. Interestingly, the full-time students also participated extensively in the discussion forums with the part-time students.

Development of course websites had unanticipated benefits for instructors. Each course now has a website which houses all of the resources required for that course for future years. While this material will need to be updated, the core readings and outline for the course are in place. This allows planning for greater coherence among courses and in the program over time. It has become easier to co-ordinate the use of materials, the scheduling of guest presentations and site visits. This is especially helpful in ensuring continuity in courses taught by contract faculty who may change from year to year.

Advantages for Full-time Students with Disabilities

In the first year of implementation, access to ePresence recordings was not restricted to online learning students. This proved to be very beneficial for onsite students with hearing loss themselves, who were able to review material which was unclear, as many times as needed. As well, fast-paced classroom discussions are always a challenge for students with hearing loss, even with the use of technology such as pass-around microphones, captioning and interpreting and therefore, being able to review discussions was helpful. This year, the full-time students with hearing loss were able to watch and listen to the recordings and they also had access to the transcript from the original class of the real-time captionist.

A question that still remains as we move forward is the need to provide captioning of the ePresence video in postproduction for part time students with hearing loss who cannot access the recordings via audition alone. This was not an issue in the pilot year as none of the part time students required this accommodation, but as part-time online learning students with hearing loss enroll in the program, the question of captioning the ePresence recordings will need to be addressed. The format of the existing real-time captioned transcripts is not compatible with ePresence and at this point, cannot be used for postproduction captioning; therefore, various other options are being explored.

The inclusion of discussion forums also proved beneficial, allowing students with hearing loss to participate seamlessly. Online activities which consisted of recorded conference presentations or other materials with an extensive audio component needed special consideration. This was addressed by having the real time captionist transcribe each course ahead of time, so that transcripts of the audio presentation could be provided to students with hearing loss while they viewed the online course. While this required significant advance planning and preparation, transcripts only needed to be completed once and are now available permanently to the program for a variety of teaching and learning purposes.

Challenges Encountered

As is the case with many webcasting programs, the primary use of ePresence in other environments is as presentation software, to be used with PowerPoint. However, while PowerPoint is occasionally used in the York program, instructors also make extensive use of video, internet access, other software programs, and the document camera - input for which ePresence was not configured.

In the first year standard video capture of the instructor and projection screen was used and while this worked relatively well, students frequently complained that print and images were not clear enough in the video capture. This necessitated having any print material used during the class (handouts, graphics from textbooks presented on the document camera, etc.) uploaded to the website following class so that part-time students could have their own hard copy while watching the day's lecture. While students were satisfied with this solution, it was cumbersome and time consuming for instructors.

A second challenge was the amount of time required to upload ePresence recordings to the server and the time commitment required of instructors. Because ePresence was developed as presentation software, the developer's recommendation was that it be used to capture a 1-2 hour presentation. However classes in the York program can be as long as 4 hours, and occasionally a class will run for a full day. Uploading a recording of this length takes a significant amount of time. Therefore recordings were stopped during breaks and therefore the class was recorded as several separate files. While this decreased the amount of time required to upload each part, it required more work on the part of the instructors, and particular care needed to be taken that all parts had been uploaded successfully in the correct order. Slow upload times were subsequently traced to the configuration of the York University network, and several options, including purchase of a separate ePresence server, or Internet service independent of that provided by the university, are being investigated.

In some ways, the small size of the program was an advantage. The teacher of the D/HH program is a self-contained unit within the faculty, and the Faculty of Education has its own dedicated IT department as well as access to the university wide IT department. The on site faculty IT department was familiar with teacher education programs in general, and staff was readily accessible when problems arose. With the implementation of the program essentially accomplished by the 3 teaching members of the program, the IT director and an IT staff person, it was relatively easy for everyone to remain current and make timely decisions.

However, in a small program, the workload for each member is proportionally large and one of the lessons learned early in the process was the considerable amount of work involved in implementing online learning. Given the small number of online learning students in the first year, this did not prove

unmanageable; however, if more students chose the online learning option (which seems likely), and as more online learning technology (such as Elluminate) is added, maintaining and expanding the online learning component along with the regular full-time program is expected to become a concern with respect to issues of workload. Thus far, support by the faculty has included release time for development of the online program for the first and second years, although the provision of release time past that point is not guaranteed.

As with any online learning program, maximizing student engagement continues to be an ongoing concern. Because most of the students in the program during the first year of implementation were the onsite, full-time students, facilitating development of an online community for the online learning students was unfortunately not a high priority. It was anticipated that since online learning students had access to exactly the same information as full-time students through viewing the actual class, they would have not have more difficulty understanding the material. In fact, while online learning students generally followed the material very well, they were not always clear on details of assignments, due dates, etc. Interestingly, the students developed their own online community through email to provide support and information for each other. Formalizing this for next year's cohort will be a priority.

Other developers of online teacher education programs have noted the same issues around isolation (Miller & Knuth, 2004; Dell & Hobbs, 2006). One student commented on the problem of not having direct contact with instructors "When we don't get to see you guys all the time - silence is worrying!" As the course progressed, instructors became more aware of needing to post announcements, information and just general updates on the website to ensure that part-time students did not miss an important reminder that had been communicated online, but that part-time students missed when viewing the lecture, and to promote a feeling of being "in the loop" even if the posting was not very important.

Similarly, student discipline in keeping up was mentioned by several as being an ongoing challenge. Since the topics and classes are not modular, but build upon each other, recordings must be watched in sequence and soon after the actual class in order to follow the thread of the material and keep up with the assignments, which are the same for onsite and online learning students.

Planning for the Future

Expanding the Course Offerings

In the 2008-2009, 4 courses (two full year and two half courses) were available for online learning students, taught mostly by the same instructors. Each year, however, more courses will need to be added so that online learning students can continue to progress through the program. While this entails significant work, it is less problematic for courses taught by the permanent members of the program - the two full-time faculty and a coordinator, who developed and implemented the online learning program.

However when courses taught by contract instructors need to be made available, questions arise as to who will be responsible for developing the online learning components of the course, building the course website, and managing the issues specific to online learning students (particularly when the salary rate for the course is based on teaching a face to face course). An additional issue is that the courses taught by the contract faculty are typically the electives which appear to lend themselves least well to an online learning model, since all involve extensive hands-on work and practice (such as working directly with troubleshooting amplification technology), field trips, and guest lecturers.

In the interim, three elective courses were proposed for the summer of 2009, as a two week intensive course, and there was sufficient enrollment to mount one. Part-time students were very pleased with this model, as all students were located within driving distance of York University and were able to access a face to face course during summer break, lightening the academic load for next year and allowing them to complete the program in a slightly shorter period of time. This model will be continued for the near future, although it is anticipated that at some point, the enrollment of out of province students in the program may require reconsideration.

ePresence and Issues of Confidentiality

In the first year, ePresence recordings were hosted on the ePresence server and accessible by a link to the server. While this was adequate, instructor "buy-in" to the model is a consideration, since recordings are potentially available to anyone. Anything that is said by instructors or students during class is recorded and the potential for misuse of the recordings exists. Therefore in future, ePresence will be

hosted within Moodle, students will be required to log in first to the Moodle website, and then be able to access password protected ePresence lectures only for the classes in which they are enrolled.

Addition of Elluminate

One of the requests made by online learning students was to have a way of interacting with the instructors as a group, in a more synchronous way than via email or a discussion board. Various options for audio or video conferencing were explored, and a license for Elluminate was subsequently purchased (www.illuminate.com). Elluminate provides access to a virtual classroom for synchronous learning, with the option to archive previously recorded classes. McGreal & Elliott (2005) describe this model as “web whiteboarding”, using a virtual classroom such as those provided by Elluminate in conjunction with an electronic whiteboard to allow instructors and students to work together.

Plans for using Elluminate include hosting a regular (for example, biweekly or monthly) “virtual Q and A” session for students. Students would be able to log into Elluminate and communicate via live voice or text synchronously, allowing them to review course content, ask questions and have them answered in real time. In their description of the online teacher education program at Montana State University, Dell, Hobbes & Miller (2008) describe the use of Linking Seminars, a one credit course that serves as an online connection point for students to ask questions, and obtain support and feedback, and address issues of classroom management and cooperative learning. While adding an additional course to the students’ workload may not be feasible in the York program, incorporating elements of this model into the students’ practicum seminar course may be very useful.

Elluminate would also provide a way for the practicum coordinator to meet virtually, not just with students, but with host teachers for practicum, allowing her to provide training, answer questions and debrief on practicum issues.

As time passes, other uses for Elluminate will likely arise. One potential use might be for virtual staff meetings, a particular advantage in a program of this type which employs a number of contract instructors located in diverse geographical regions.

Integrating the SmartBoard

With the purchase of a SmartBoard during the 2008-2009 year, it is anticipated that learning effectiveness will continue to increase for both full and part-time students. SmartBoard is an interactive whiteboard; technology of this type is being used more commonly throughout the US and Canada in classrooms at all levels. With the increased availability of SmartBoards in classrooms, and the many interactive and engaging activities offered by its software which are adaptable for deaf/hard of hearing students, it is extremely important for students to be familiar with its use and be able to teach classroom teachers how to maximize use of this technology for their own students with hearing loss.

Evaluating Courses

Because this program was unique in the university, and in its earliest stages, the standard university course evaluation formats did not address the particular issues of interest to this online learning initiative. While students graciously provided ongoing comments and suggestions, an online survey separate from the standard course evaluation form will be developed to address online learning issues for both onsite and online learning students.

Conclusions

The first year of implementing an integrated onsite-online learning program was generally effective from the perspective of both students and faculty, although not without its difficulties. The primary audience for the online learning option was part-time teachers interested in taking the program but who were unable to attend classes on campus; however, the integration of online learning proved to have unanticipated benefits for the instructors, for the full-time, onsite students and for onsite students with disabilities as well. These included opportunities to access course material more conveniently, participate in different forms of learning activities other than traditional lectures, review course content at will, and maximize instructor time and effectiveness. Several members of the online learning cohort had had previous experience with online education courses, and commented that they preferred this model, although it involved significantly more work on their part than a more traditional text-based format.

Incorporating the online learning program into the existing onsite program allowed for significant cost savings in launching an online program – since the courses were being offered already, the primary outlay of funds was for the purchase of ePresence hardware and ongoing costs for server provision.

Other requirements (a suitable classroom for recording, the Moodle platform, video-recording equipment and IT support) were already in place at the university.

In retrospect, the most unanticipated aspect of this model was the amount of time required to “manage” the online learning students, who required support of a different nature than the onsite students. The online learning cohort did face some problems with feeling isolated and maintaining their focus and discipline, but seemed to feel much more a part of the class by watching recorded lectures; in the words of one student, “it really feels like I am there”. One of the most important considerations in moving forward with this model, then, will be determining how many students can be accommodated in the online learning program. The model relies on a sufficient number of students enrolling in the on-campus program for this to remain viable. In fact, for the 2009-2010 academic year, a larger than average number of students applied to the on-campus program. The benefits of completing the program in one year, rather than 2 ½ to 3 years, appear to continue to attract students to the on-campus program and therefore the program appears viable for the near future, keeping open the possibilities for expanding our current online program.

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