Taking library instruction into the online environment: one health sciences library's experience ▣C

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In 2012, an academic health sciences library serving a large research university and medical center introduced synchronous online training for a diverse group of users, including clinicians, researchers, faculty, and distance students. Participants in these ''Express Training'' classes completed two surveys to assess their experiences. Survey results indicated classes were well received but revealed some areas for improvement. Included are issues that should be considered when implementing online library instruction to meet the diverse needs of academic health sciences library users. Given the popularity of online training among on-campus and distance users, it will be continued and expanded.

INTRODUCTION

Like many universities in the past several years, the University of Alabama at Birmingham (UAB) has increased the number of online classes and programs it offers. A large percentage (68% in 2012, 83% in 2010) of the students enrolled only in online courses came from UAB's health programs. Lister Hill Library of the Health Sciences (LHL), UAB's health sciences library, faced the dilemma of how to meet the library training needs of this growing online patron population. While asynchronous online methods of library instruction have been employed for many years and are well documented in the literature [1–3], synchronous services have not become more common until recently [4–8]. Numerous libraries use course management systems such as Blackboard to reach students [8–11]; however, few articles discuss synchronous library instruction for nonstudent library users such as clinicians, researchers, or faculty. One exception is the University of North Carolina at Chapel Hill's (UNC's) Health Sciences Library, which has taken live, in-person classes and simultaneously streams them online to better serve distance students as well as on-campus students, faculty, and clinicians [12]. Like UNC's Health Sciences Library, LHL serves a broad spectrum of patrons: students (on-campus and distance), faculty, staff, researchers, clinicians, and university hospital and clinics. Given the current trends in online education and the time restraints of

▣C Supplemental Appendix A, Appendix B, and Appendix C are available with the online version of this journal.

Table 1
Comparison of web conferencing products*

Desired features	Fuze Meeting Plus	Microsoft Live Meeting	GoToMeeting	Adobe Connect
Allows at least 25 attendees	√	√	N	√
Easy set-up for both hosts and attendees	√	N	√	N
Mac-friendly	√	N	N	√
Intuitive interface	√	N	√	N
Ability to switch presenters	√	√	√	√
Application sharing	√	√	√	√
Recording capability	√	√	√	√
Unlimited sessions	√	√	√	√
Mobile-friendly	√	N	√	√

*Available features at time of review.

busy clinicians, researchers, and faculty, LHL decided to explore options for adding web-based library classes to its training services.

IMPLEMENTATION OF THE ONLINE INSTRUCTION SERVICE

LHL identified its weekly in-person instruction series, ''Express Training,'' as a logical service to expand with online classes. In-person Express Training has been offered at LHL since 2010 and grew out of a need to provide instruction to user populations not reached by traditional course-associated instruction or liaison programs. These classes vary from general introduction to library research to classes focused on specific resources or skills. Express Training classes offered in 2012 included databases such as PubMed, Scopus, and Google Scholar; research skills such as using American Psychology Association (APA) style and writing a literature review; tools such as EndNote and mobile medical applications; and research-related issues such as demonstration of scholarly activity and the National Institutes of Health public access policy. Although the librarians initially considered teaching in-person and online students simultaneously, they decided it would be too difficult to deliver quality instruction to both groups at once. For example, librarians were concerned that monitoring online students' chat box questions would be too distracting and disruptive to an in-person class. Therefore, in-person classes continued to be offered on Thursdays at noon, with online versions of the class added the following Mondays at 3:00 p.m.

Many of the in-person Express Training classes included participatory in-class exercises. Several instructors planned to include interactive components in the online classes as well but had to consider the logistics of doing so in the online environment. For example, because the web conferencing product that LHL selected had the ability to make attendees presenters, some librarians planned to ask for volunteers to demonstrate a search for the rest of the participants. Other instructors simply incorporated hands-on practice time for attendees to try out the new resources or skills presented in the class. Besides these adjustments for the ''hands-on'' portions, the content was the same for the in-person and online classes.

LHL investigated various options to make online classes accessible to all patron groups. After conducting trials of several web conferencing programs including Adobe Connect, GoToMeeting, and Microsoft Live Meeting, LHL chose FuzeBox's Fuze Meeting <https://www.fuzebox.com> mid-range plan, because its features most closely met LHL's needs. Table 1 shows the different features LHL sought and how the different products compared at the time of review. LHL did not purchase a videoconferencing plan, in part to reduce costs. The instructors decided it was more important for users to view the instructor's desktop and running applications than to see the instructor and other attendees. Attendees were encouraged to connect to audio using voice over Internet protocol, which was included in the Fuze Meeting subscription. One hundred twenty toll-free minutes per month were also included in the subscription, so a toll-free number was provided for those who preferred to dial in.

Once the software program was selected and licensed, six librarians were trained to use Fuze Meeting. Preparation for teaching in the online environment is crucial to success, and much of the literature stresses the importance of training and help documents for instructors [5, 6, 9]. To that end, one librarian created a number of support resources for the instructors, including a checklist for setting up and hosting a class (Appendix A, online only), an email template for class invitations, and a class evaluation survey. After each librarian received individual training, several practice classes were arranged to increase librarians' comfort level with the software.

A class registration workflow was also established. While registration was not required for in-person Express Training classes, attendees were required to register for online classes so that instructors could send them session links prior to the class. LHL used LibCal <http://www.springshare.com/libcal/> to manage registrations and an ''Express Training @ LHL'' LibGuide <http://libguides.lhl.uab.edu/express/> to showcase classes offered. The guide also included links to the LibCal registration system, resources related to each class, and links to any previously recorded online classes. Online Express Training was intended for UAB affiliates; however, individuals not affiliated with UAB were invited to email the instructor to register.

Lastly, while LHL instructors found little need for co-instructors in their in-person Express Training classes, they considered whether additional help might be needed for the web-based classes. Other libraries offering online classes have found the participation of a second librarian or staff member helpful for troubleshooting technical issues during the class [4, 6]. Following this advice, lead instructors were paired with ''chat monitors,'' who responded to chat questions. The six instructors rotated as chat monitors, which further increased their comfort level using Fuze Meeting.

In January 2012, LHL began its pilot phase of online Express Training. The classes were open to anyone (both UAB and non-UAB individuals) and were promoted using the LHL website and newsletter, the university-wide email newsletter, other key campus communication channels, and liaison librarians.

METHODS

Two surveys were conducted to measure user experience. The first survey was the class evaluation (Appendix B, online only), which gathered information such as reasons that respondents attended the online classes and whether they found it helpful, encountered any technical issues, or would recommend changes. This SurveyMonkey questionnaire was sent via email to class attendees following each class from January 2012 to February 2013. Approximately 40 online classes were offered during this timeframe, ranging from 0 to 16 attendees per class and with an average of 4 attendees per class. By February 2013, this resulted in a total of 173 possible class evaluation respondents.

To help provide a more complete picture of users' experiences with the online classes, a second survey was developed (Appendix C, online only). This survey attempted to capture information from not just those who had attended a class, but also from anyone who had registered for an online class. Questions included in this follow-up survey covered topics such as reasons some might not have attended classes for which they registered, how attendees used the information gained, and whether class support materials were helpful. Approval was obtained from UAB's Institutional Review Board to invite all online Express Training class registrants from the same time period, January 2012 to February 2013 (n=229), to participate in this follow-up survey. Registrants were emailed the SurveyMonkey link in April 2012 and offered the chance to win 1 of 5 $15 Amazon gift cards for completing the survey.

OUTCOMES

Class evaluation survey

Feedback from the class evaluation survey was positive. Sixty-six of 173 attendees (38%) responded to the evaluation. The highest number of responses came from PubMed and Introduction to EndNote class attendees (both n=10), followed by EndNote Web (now called EndNote Online, n=8) and APA (n=7). Ninety-eight percent of respondents found the information provided in their session ''Useful'' or ''Very useful''; 92% rated the technical aspects of their online sessions as ''Good'' or ''Excellent''; and 100% found the pace of the presentations ''About right.'' The top 2 factors respondents gave for attending an online (versus in-person) class were the comfort of the online environment (56%) and work schedule (44%).

Despite the high level of satisfaction among respondents, class evaluations revealed that some users encountered technical issues. Anecdotal feedback not fully reflected in class evaluations pointed to issues such as difficulties logging in and setting up audio, background noise, and inability to hear the instructor—all issues that, according to the literature, often plague online and co-streaming classes [4–6, 9, 12].

Follow-up survey

Fifty-six out of 229 registrants (24%) completed the follow-up survey, including 18 students (32%), 16 clinicians (29%), 11 faculty (20%), 11 administrative staff (20%), 3 research assistants or staff (5%), 2 fellows (4%), a resident physician (2%), and a postdoc (2%). Forty-five (80%) respondents indicated they attended at least 1 online Express Training class. Of these attendees, 44% (n=20) reported participating in more than 1 online class.

Among the 11 registrants who did not attend an online class, the majority (n=9, 82%) missed the class because they were too busy or forgot they had signed up (n=3, 27%). Other reasons cited among non-attendees included having technical issues, deciding the class was not relevant to their needs, not receiving a link or missing the email invitation among other emails, and being ill. The timing of the classes (Mondays at 3:00 p.m.) seemed to be the greatest barrier to participation among non-attendees. Fifty-five percent (n=6) of the non-attendees suggested offering the classes at a different time. Other non-attendees suggested offering different topics, more technical assistance, and an extra reminder prior to the class.

The majority of the respondents to the question (91%, n=39 of 43) applied the skills learned through online Express Training classes. Participants were also asked how they used the new information and skills. Of the 39 who responded to the question, most respondents used their new skills for researching and writing an article (46%, n=18), assignment (41%, n=16), or grant (28%, n=11). Other respondents indicated that they used what they learned for teaching (23%, n=9) and clinical care (15%, n=6). Among the 5 respondents who did not use the information, 2 indicated that they were unable to focus on the class and the others already knew everything that was presented, no longer needed the information or skills, or had not yet had the opportunity to use the information.

While support materials should have been provided after each class, many attendees (40%, n=17) reported not receiving a link to a class recording after the live session. Among those who did receive a link and reviewed the recording, 86% (n=12) found it ''Helpful'' or ''Very helpful.'' One person found the class slides more helpful than the class recording. The 10 respondents (83%) who received the recording link but did not view it indicated that they remembered the information from the class and, therefore, did not need it for review. Seventy-two percent (n=31) said they received handouts from the instructor, which they used after the class.

Consistent with feedback from class evaluations, the follow-up survey indicated a positive overall impression of online Express Training: 72% (n=31) of respondents recommended an online class to someone else, and 97% (n=42) recommended LHL continue the service.

DISCUSSION

Lessons learned from implementation process

LHL librarians' experience setting up the online Express Training service combined with the results of the two surveys provides useful lessons for libraries considering an online instruction service. First, libraries should consider the need for online library instruction at their institutions. While it is natural to think about need in terms of numbers of distance students, consider other user groups who may also appreciate the availability of web-based classes. Clinicians, administrative staff, faculty, and researchers were well-represented groups in LHL's online classes.

Second, libraries should consider available software and features, including those that may already be licensed by their institutions to ensure best use of resources. One's institution may already license a product that would work well for this purpose. If, as was the case for LHL, existing campus tools prevent user-friendly access for all relevant patron groups, web conferencing products like those trialed by LHL are affordable alternatives. Because the products allow sessions to be recorded, they may be an ideal solution for libraries with a small staff and few instructors since recorded sessions could be used to extend instruction beyond real-time, in-person class limitations. Furthermore, LHL found the class recordings to be an invaluable tool for virtual reference patrons in need of on-demand training. Librarians can direct patrons to the ''Recorded Classes'' page on the Express Training LibGuide, which lists all available recorded classes.

Third, in terms of which classes to offer, LHL found it helpful to start simple and offer online versions of in-person classes already being offered. Because librarians already had the in-person Express Training classes prepared, there was little added effort to adapt these classes to an online environment. One exception was the hands-on portions of the classes. In the transition of these classes to the online format,

instructors found it difficult to engage students. While instructors could give control of their desktops to attendees to, for example, share their search strategies, this required that someone volunteer to lead an exercise for the class. Generally, online participants did not volunteer and seemed uninterested in practicing during the online class itself. As a result, many of the online Express Training instructors opted to replace some of the participatory segments in favor of allowing more time for demonstration, questions, and technical assistance. Attendees seemed to appreciate these kinds of interactions with the instructor more than practice exercises. As instructors and attendees become more comfortable with web-based classes, it might be worthwhile to try other attendee engagement approaches, such as polling or white board activities.

Lastly, to help address technical and audio issues and catch questions or comments submitted via the chat box, LHL librarians found it very helpful to have a second librarian logged into the class, especially during the first several months of offering the online sessions. With time, instructors became more adept at managing these issues themselves while effectively starting and leading the class. They learned, for example, the importance of signing in to an online class early to address any technical issues. Therefore, the assignment of ''chat monitors'' to each class was eventually phased out; however, occasionally instructors with a large number of registrants still requested the help of another librarian. This ''as needed'' assistance worked well and did not unnecessarily tie up staff for sparsely attended sessions.

Areas for improvement revealed from surveys

While the class evaluation survey results suggested users had a positive experience attending the online library classes, the follow-up survey responses revealed several areas needing further attention. First, while it is clear the class recordings were a valuable by-product of the web-based classes, the follow-up survey revealed that LHL may need to investigate further why such a high percentage (40%) of attendees indicated they did not receive a link to a recording of their class. This could be due to a number of factors: instructors forgetting to record their classes or to send the recording link to attendees, a factor probably related to being new to the software and workflow; attendees overlooking the email with the link; or technical issues that instructors occasionally faced that prevented them from recording the sessions. While instruction support resources (e.g., reminder checklist, cheat sheet, template, etc.) were made available to instructors, more effective means of ensuring attendees receive their class recordings may be needed, such as additional email or calendar reminders.

Second, the fact that nearly half of respondents were repeat attendees suggests these individuals had positive experiences with their first online session and saw value in attending another class. However, repeat attendance could also signal the need for improvements. For example, did these individuals attend the

same class for a second time? If so, why? Did they forget the information or struggle with distractions, interruptions, or technical issues; or was the teaching method ineffective? Future inquiries should explore why some patrons attend more than one session.

Third, non-attendees' feedback included suggestions such as sending email reminders the day before the class and offering sessions at a different time. Incorporating additional email reminders into the workflow is an easy way that LHL librarians can potentially increase participation. In an effort to respond to the class-timing suggestions, LHL offered online Express Training classes on Tuesdays and Thursdays at 4:00 p.m. during the summer of 2013 and will continue experimenting with different days and times.

Despite these areas of further investigation, it was rewarding to LHL librarians to discover specifically how attendees were applying what they learned. Through the new online classes, LHL has expanded its support of vital university functions such as research and publication, class assignments, and grants as well as teaching and clinical care.

Limitations

The authors recognize that the results of these surveys have limitations. The small sample sizes, the somewhat low response rates, and the fact that the data are self-reported should be noted. Another shortcoming of the follow-up survey data is that some of the respondents were asked about online classes that they had taken months prior. Clearly, it can be difficult to remember specific details of events when this amount of time has lapsed. As LHL moved beyond the initial launch of its online Express Training, instructors became more used to the workflow and more consistent about emailing the class evaluation surveys to attendees. Future surveys of online registrants and attendees should attempt to address some of these methodological issues by perhaps sending additional reminders to potential respondents and sending the follow-up survey on a rolling basis so that so much time does not pass.

CONCLUSION

As universities increase their distance education and online course offerings, more users will need online library training sessions. Not only do online library classes provide a necessary service for distance users who are sometimes difficult to reach, but they also offer added convenience to users who would normally have to visit the physical library for training. LHL's experience establishing its online instruction service and feedback from both surveys offer a glimpse into the myriad details to consider when exploring web-based classes. As with any new service, especially one heavily dependent on technology, there will be aspects of the service that do not go as anticipated. LHL librarians plan to continue offering, evaluating, and enhancing web-based classes to expand training opportunities and improve the user learning experience.

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