In Support of Online Learning: A COVID-19 One Shot Case Study

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Abstract

This article presents a case study of a successful undergraduate information literacy one-shot instruction session conducted wholly online and synchronously through a web-conferencing platform built into the university's learning management system. This modality was necessary due to the COVID-19 pandemic and was agreed upon through discussion between the librarian and the instructors of record. The article provides a pedagogical framework grounded in constructivism and active learning for the approach to the information literacy session, including justifications for the deviation from the lesson plan as created when the class was taught face to face. It discusses best practices indicated by the experience, as well as limitations and changes the librarian would have made after a critical analysis of the session. Among the considerations discussed are issues of engagement, access, accessibility, and student support, and suggestions are made as to how academic libraries can learn from this experience to bring more information literacy instruction to online learners.

Keywords: Information literacy; instruction; online learning; synchronous teaching; pedagogy; active learning; contructivism; COVID-19

Introduction

The COVID-19 crisis created an unprecedented demand for academic librarians to change their modes and methods of information literacy instruction. Though the initial shock of this has passed, the academy's ability to adapt to a changing landscape is still being tested. It may be years before we know the true impact of COVID-19 on information literacy and academia in general. However, there are already lessons that can be learned from those early efforts to help shape information literacy instruction going forward.

When the University went online only in the middle of March, the anthropology and sociology liaison for University Libraries had an information literacy session scheduled for March 30th. Given that the librarian had less than two weeks to plan how to adapt the class to the online format, the instructors of record for the class were given the option to cancel the session, with the guarantee that the librarian would make herself available to the students in the class for any question they might have; another instructor in another discipline had already made the same arrangements with the librarian for her four composition classes. However, the instructors of record were enthusiastic about going forward with the instruction in whatever method was feasible. After more discussion with the instructors, the librarian chose to conduct a synchronous session via Blackboard Collaborate, with an asynchronous option available to students who were unable to attend the session. This decision was made in accordance with best practices originating in the K-12 setting that emphasize visibility – visibility of instructors and support staff to students, and visibility of students to each other- for emotional support in addition to academic support in this crisis (Yorio, 2020).

Literature Review

The academic library has had a relationship with online learning from its beginning. The ACRL first released guidelines for providing services to online learners in 1996 and has consistently updated these guidelines since then. The most recent guidelines were released in 2016 and state, "[Financial] support must facilitate access to immediate and equivalent library services and learning resources to all of the institution's library users regardless of their location" (ACRL, 2016). The guidelines also imply that this should mean an increase or reallocation of support any time online learning is expanding. In the middle of a pandemic, with all classes going online, this effectively means that all library services should be modified to support online learners wherever possible. Because the majority of these services were already offered to distance learning students, the modifications mainly involved staff reorganization and changing workloads.

However, information literacy instruction as it exists in the physical classroom is not often replicated equivalently in the online setting. In fact, a 2015 survey found that just 54.05% of institutions offer, "special classes or training program for distance learning students" (Primary Research Group, 2015, p. 38), which means many face-to-face programs and methods have not been adapted for the online learner, not just information literacy sessions. This is true even though teaching synchronously where possible has its benefits beyond information literacy skills. It gives students a sense of connectedness, replicating the experience librarian(s) and other professionals may have felt at this time when logging into a webinar; postdoctoral scholar and researcher Arpit Sharma (2020) writes about, "… realiz[ing] that despite being alone in [his] apartment, [he] was taking part in an event with researchers from around the world, some probably motivated by the same fear of isolation…" (p. 206). Videos and tutorials, which might

be considered an equivalent by content standards, cannot offer the additional emotional dimension.

COVID-19 has changed how the academy works. While formal analysis of the academic response to COVID-19 may still be a topic of future concern, there is some informal literature on the topic already in the form of editorials. The information is promising. Institutions of higher learning – and all the associated disciplines- have modified how they deliver their content. Veterinary medicine, a discipline that is grounded in clinical teaching has managed to adapt (Bowen, 2020). Pharmaceutical Sciences have not only adapted, but they have also dispensed advice on how to cope, emphasizing a return to empathy and patience in the teaching process (Brazeau & Romanelli, 2020). Academic libraries, and especially those who teach information literacy, can also adapt. In reality, they have no choice but to adapt. Writing candidly in an editorial on the reaction of public libraries to the crisis, Rebekkah Smith Aldritch (2020) states, "If your library is closed, you still have a responsibility to address the knowledge seeking and social cohesion needs of those you serve" (p. 10). This is no less true for academic libraries.

Pedagogical Framework

While mindful that not all students would be able to attend the synchronous session, the librarian and the instructors of record felt that offering the opportunity for synchronicity was a vital part of offering information literacy instruction. This stemmed from the pedagogical underpinnings of the librarian's teaching style and philosophy, but was also supported by the instructors, who reached out well in advance of the session to discuss retooling it. In addition to being assigned as the liaison to the anthropology and sociology department, the librarian who taught this online class is also the undergraduate engagement librarian at the university, so the foundation of the class design was engagement and active learning.

Constructivism

As a pedagogical approach that promotes hand-on learning, constructivism posits that learning happens best when students are asked to do something with the information that is provided to them. Building on the initial constructivist theory posited by the Swiss philosopher Piaget, research has found that this can be applied to information literacy instruction by designing activities that align with the research needs and goals of the class in which the instruction was situated (Webster & Kenney, 2011). However, true constructivists activities go one step further. "[C]onstructivist or discovery learning, moves from experience to learning and not the other way around" (Allen, 2008, p. 31).

In order to achieve this during information literacy sessions in the classroom, the librarian typically plans several activities to give students the opportunity to apply their knowledge in a structured setting, and question the information they have been given in order for them to reach their own conclusions about how research skills work for them. Due to the restrictions in the online setting and the short time to plan, the librarian chose one activity that she felt would have the most impact and be feasible to implement.

Active Learning

As a corollary to the concept of constructivism, the librarian also employs active learning techniques in the typical classroom setting. These techniques do not ask the learner to question their knowledge as the constructivist approach does, but they do ask the student to be an engaged and willing participant in their own learning. Effective active learning techniques, "[result] in the generation of something new, such as a cause-effect relationship between two ideas, an inference, or an elaboration, and it always leads to deeper understanding" (King, 1993), which requires choosing the techniques carefully. Though casual questions can elicit a certain level of

engagement with the learner, more specific and finely tuned questions can bridge the gap between engagement and learning. This is the difference in asking, "Have you done research?" and "How did your prior experience in research align with the information I just gave you?" Active learning also lends itself to the "guide-on-the-side" philosophy, though being a hands-off instructor in an online setting is a much more difficult thing to do than in person.

Another consideration for acting as a guide-on-the-side is that the population of this class has historically been lower-level students who have had little to no experience with research at the post-secondary level. Therefore, some portions of the class were taught in a more lecture-style in order to give an equitable playing field to the students and a foundation from which to make their own analysis. Even so, the librarian kept the lecture portions engaging to the students, asking them about their experience with research prior to the session and other questions in the build up to the main activity. These questions also helped the librarian gauge whether students were remaining interested, paying attention, and understanding the content that was delivered to them.

Case Study – ProSeminar in Anthropology and Sociology I

As previously mentioned, the class session was conducted on March 30th, 2020. The session combined two classes, cross listed as a departmental pro seminar, with two separate instructors of record, one for the anthropology students and one for the sociology students. According to the publicly available class records, a total of 18 students were enrolled in the two sections. The synchronous session was conducted during the normal time slot for the class: 2:30-4:00pm. Both the librarian and the instructors felt that keeping the session in its normal timeslot was imperative to having the best possible attendance. However, when setting up this synchronous session, the instructors of record had not attempted and did not plan to attempt synchronous sessions

themselves. These arrangements were made over a series of emails beginning on March 11th, 2020, and culminated in a plan by March 20th, when the librarian sent a link to the online session for testing. This session was then closed until 30 minutes before the class start.

The librarian scheduled herself to be available in the online session 30 minutes before the class in order to give students plenty of time to log in and trouble shoot any problems that they might have. The settings were such that none of the student attendees could share video, but audio could be shared if the students so chose. The librarian also allowed video privileges to both instructors of record, who also attended the session.

The session had nine student attendees. In order to make sure the session would continue in the event of a technology or connectivity failure, the librarian logged into the Blackboard Collaborate session on two devices: her desktop computer, from which she would do screen-sharing and which was connected via WiFi, and her cell phone, which was connected via her cellular data connection and from which she would stream her live video. A lesson plan was provided to the instructors of record prior to the class and was expected to cover the following topics: introduction to the library (including COVID-19 modifications), research guides for anthropology and sociology, searching in the discovery tool, interlibrary loan and other consortium resources, and evaluating resources. These were all topics that the librarian had expected to cover in the face to face version of the class.

The first four topics in the class were taught in a lecture format, with some questions for comprehension and engagement inserted at various points during the content; this is a departure from the face to face class, which would have included hands on searching time in the discovery tool and a small “scavenger hunt” in the research guides. This decision was made for several reasons: to simplify the class in light of the dramatic changes that had already taken place, to

make sure there would be time to do everything, even if there were technical problems, and to eliminate unnecessary gaps in the recording that would occur when students were working on their own.

The last topic, however, did have a hands on-component. In face to face sessions, the librarian has students form groups to review example materials and evaluate whether or not they would use the material in a research paper. These materials are selected with specific characteristics in mind to help elicit responses from students along the lines of the C/TRAAP test, but they are not required to limit their evaluation to those concepts, as long as their argument is grounded in logic. In the online session, all materials had to be available via the internet, so that students could view the material, and in order to further simplify the process, the librarian also chose materials that were open access. This avoided potential issues with navigating authentication systems. Students were also put into groups by the librarian using the breakout feature in Blackboard Collaborate; similar features are available in other web conferencing software. The librarian then assigned materials to groups at random, linking them to the material through the chat feature of the breakout rooms.

While students worked, the librarian cycled through the breakout rooms to observe students talking about the material and be available to answer any questions; students could still chat with the librarian through the main chat lobby, but the librarian also wanted them to have the semi-private aspect that would occur if a student asked the librarian to come talk to their group in a classroom setting. During this cycle, the librarian also talked about helpful hints on evaluation and analysis, and this information was available to everyone, not just individual breakout groups. It also served to keep the video moving smoothly for individuals viewing the recording later.

After about 10 minutes of analysis time, which was slightly longer than the librarian would have given the students in class, the librarian dissolved the breakout rooms, forcing students back into the larger meeting room. The librarian then asked students to report on their decision. While responses were not as thorough as they might have been in a face to face setting, they were reasonable. They might have been lengthier if students had opted to use microphones instead of typing in the chat, but none of the students used that method of communication. The librarian also read the chat answers aloud for the benefit of video-watchers, who might have viewed the video on a mobile device.

The class concluded with a small question and answer period, though few questions were asked. As a form of feedback, the librarian also asked students to e-mail her with their thoughts on the class: one thing they liked about the class, one thing they did not like about the class, and one thing they were still confused about. This is parallel to the debriefing activity the librarian does with face to face classes; in F2F, the students write this information on Post-It Notes and the librarian collects them and answers questions as they wrap up the session. Normally, every student responds to these questions, though most do not have questions. In the online session, only one student responded, and it was well after the class session ended.

Feedback from the instructors was overwhelmingly positive. Before and after the session, the instructors of record expressed gratitude for the librarian's willingness to attempt an online session. They both believed that the results of the session were positive, especially given the larger societal context, and the librarian agreed. They were especially supportive and appreciative of the work that went into providing group work in the online environment.

Best Practices

From the experience, the librarian identified several best practices that she believes will be crucial to conducting similar sessions in the future. The most important aspect of the session, from planning to execution was a good working relationship with the instructors of record. Especially in the online environment, where students may not have significant interaction with anyone at the institution besides the instructor, having the instructor support the librarian and their teaching methods is crucial. Build up these relationships with instructors, even when it seems that the relationship is reasonable; going virtual requires a substantial leap of faith.

Nearly as important, however, is using software that both the librarian and the students are familiar with. In this example, the librarian used Blackboard Collaborate, but which software is used is less important than how it is used. Though every session has its possibility of problems, effective use of the software will instill trust and streamline the session. Familiarity with the platform will also allow the instructor to use all the tools at their disposal.

Plan, but be flexible. Offer alternatives for students**.** This session was conducted early in the pandemic. Many students were still struggling to adapt to the online environment. Some students had lost their income and were unsure if they could even continue their education. Even the instructors and librarian had their own misgivings about the session; they were working from home as well, with less reliable technology and internet connections, with little to no support or alternatives if things started failing.

This is not the first crisis to change teaching. After Hurricane Katrina, major modifications took place in the instruction at Tulane University, and writing about it, Kahn and Sachs (2018) offer the following advice pertinent to our situation. First, understanding the culture, or understanding the institution is vital. In academic libraries, this requires knowing the

instructors well, and being aware of economic and social constraints on the student population that might inhibit synchronous teaching. Next, plan, but "leave room for adaptation based on local conditions" (p. 7). Especially during the pandemic, when infection rates are different from state to state and even county to county, local conditions might make even synchronous online teaching difficult, as students and staff might be unwell or too stressed for the event to be effective. Next, they caution that, "vision alone is insufficient" (p. 7), and emphasize collaboration and communication. Effective synchronous teaching sessions are going to require instructor buy-in and depending on the nature and extent of the programming, may also require support from other librarians at the institution.

Related to adapting to local conditions, librarians should also be prepared for psychological trauma, including post-traumatic stress disorder (PTSD), which could prevent students from participating or participating fully. If students are worried about loved ones, or their own health, or losing their job, they may not be able to focus on education. Despite active learning techniques, class sessions might be one sided. This does not mean the session is ineffective. Finally, lead by example. If no one tries to do online synchronous information literacy sessions, the academic library cannot learn how to do them effectively.

Changes

After conducting the session and submitting the video for students who were unable to attend, a few changes for the future were identified. While the response from both students and instructors was positive, this was, in essence, a pilot session for this teaching method.

The need to officially assign speakers for each group was evident in hindsight. This is not something the librarian normally does, as students are usually eager to speak up in class or can easily express non-verbally that they are uncomfortable with speaking. This is not the case with

the online environment; not only are those non-verbal cues missing, but students may feel equally as uncomfortable with expressing their wishes, even in the small group setting. It also may be a simple problem of it not occurring to students that their argument would be clearer if they designated one person to speak – again, those nonverbal cues in a classroom setting would help guide most of this behavior.

Another major change from the librarian's perspective would be making time to thoroughly edit the session recording after the session ended; the librarian in this case was more concerned with making the session available as soon as possible. Blackboard at the time had a substantial lag time in releasing recorded sessions. However, subsequent views of the recording showed major gaps in engaging content, especially when students were working in their breakout groups, though the librarian had attempted to compensate for the problem in the moment. There are also problems of accessibility, both from an ADA standpoint and a technology standpoint (e.g., viewing on mobile devices, low bandwidth). While extensive video editing software would not be necessary to compensate for these issues, some knowledge of video editing and simple software would be necessary. For ADA compliance especially, the librarian might want to seek advice from their university's disability services department. In this class, no ADA accommodations were requested.

Just as important as the experience in the moment is feedback after the session is over, as it serves to improve the experience for future students. The librarian was disappointed that more students did not email her with comments or questions, though she perhaps should not have been surprised. There is a small but significant amount of pressure to fill out the Post-It note in the classroom settings; there was no pressure or motivation to send an email if the student did not actually have a pressing question. There are a few options for how to change this part of the

class. Many web platforms have a polling feature, including Blackboard Collaborate. The librarian could use that feature to ask students if they have any other questions. The librarian could also work with the instructors of record for a class-related incentive to sending the email. The librarian could also draft a formal feedback, though it is unclear that the modality is the problem.

Limitations

The librarian only had the opportunity to attempt a synchronous one-shot information literacy session with one class, and the class size was atypically small for a large research university. The success of the session relied heavily on cooperation from the instructor of record, though the same could be said for most one-shot sessions.

Lack of access was a serious problem, not only in this class, but at the larger university and across the nation. Some state and local governments made access a priority, but this was a patchwork response to the problem and one that could not effectively be solved by the individual instructor. In addition, accessibility could be an issue in some cases; there were no students in this session who indicated that they required accommodations.

Inequity between the synchronous session and the video supplied to students who could not attend would also need to be addressed in the future, especially if attendance was caused by a lack of access rather than willful absence. It is unclear from this one class whether these differences could be comparable to students missing class on the day of a face to face session. However, inequity is an issue that all of higher education has had to examine, and the COVID-19 pandemic has only served to highlight it.

Conclusions

This case study serves as an example of what synchronous online learning can look like in the context of information literacy. Many challenges have arisen from the COVID-19 pandemic, but reaching our students in an engaging, supportive setting does not have to be a challenge if the librarian has the support of the instructor of record and the motivation to think through the problem.

Information literacy can survive the pivot to online learning. It may even thrive in a post-pandemic world, with librarians better prepared to serve their online learning students. It is clear from the success of this session, even in a panicked and imperfect situation, that the academic library can do much more for online learners.

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