Meeting our students where they live through Distance Education: Designing, implementing and teaching online library research classes

James Thull
Montana State University
Bozeman, MT
jjthull@montana.edu

ABSTRACT

Well-developed research skills are essential to our student's educational success. For a generation that will create more information than was created by all those who came before them access to information is not an issue, at least for those on the access side of the digital divide. However as that wealth of information grows so does the need for the skill sets that allows one to pull the drops of needed information from the ocean that they have available to search. Students, who have not known a world without Google, smart phones, and abundant wireless internet access, often feel their research skills are good enough but usually fail, not in the search for information, but in the ability to determine what the best information is and how to find it most efficiently. Online library research classes are one of the best methods we have for providing our students with the skills they need to succeed. Designing, implementing, and teaching library research classes allows librarians to communicate research skills that meet our students at their point of need. This paper will provide an examination of the benefits for our students, libraries and faculty in providing these classes, an overview on how they can be structured to meet the information literacy needs of any student and basic information on how to create library research classes at any institution of higher education.

KEYWORDS

Distance Education, Library Instruction, Information Literacy, Academic Research, Bibliographic Instruction

INTRODUCTION

Information literacy is defined by the Association of College and Research Libraries as "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."[1] We all have different information needs and therefore information literacy is unique to each one of us. You may know your daughter only eats the breakfast cereal with the Tiger on the box, that is information that is relevant to you but not so to me, fortunately in the age we live in accessing most non-immediate family related information is done through the Internet and therefore the skill set is transferable and teachable on a large scale. Librarians have, through necessity, honed information literacy skills and are the best suited to teach students how to thrive in the information rich world of academia.

In many respects we are unlike any others that came before us. We have the vast majority of the sum of all human knowledge available to us, in our homes, coffee shops, classrooms and, with smart phones, anywhere 24 hours a day. Our students live in a world where access to information is not as much of an issue as it was even 5 or 10 years ago let alone the 15 or 20 since many of us were last students. With larger databases, more e-journal titles, an increase in the number of books available electronically, and of course the sheer volume of information available through individual webpages, blogs and websites students have access to more information than any students before them in the entire course of human history. While there is certainly still an information divide our students are generally on the best side of it. Where librarians are of use is in helping our students make the most of the research tools and access they have available. Like having a swimming pool in your backyard but never taking the time to learn to swim, our students often never learn how to effectively use the information resources available to them through their

institution's library. Distance education classes, designed and taught by librarians, can make learning these skills easier and more convenient for our students.

It is estimated that we currently create more information about every two days then we did from the dawn of human history to 2003 and that we continue to double that amount about every two years [2]. The concept that too much information would become a problem, even an acronym based saying i.e. TMI, is likely something researchers just a generation or two before us would have had trouble conceiving. Just reflect on that fact for a moment. Nearly every question a student will have, outside of the "I wonder if she likes me?" or "What's for dinner?" type, can be found, or at least likely exist in an internet accessible version. Research skills are the keys our students need to unlock the information held in this vast sea of data. We all know searching for the needle in the haystack gets more and more difficult the larger that haystack becomes. Having effective research skills is like having the ability to use a metal detector to find that needle.

Libraries today, more or less, are disseminators of information opposed to the warehouses they have been in the past. The role we still play is in providing point of need access and helping students navigate the ocean of information they often find themselves swimming in. Librarians are information professionals. We spend our time staying abreast of research trends, platforms, methods and user needs. Like any other skill set practice makes perfect and we spend a lot of our time practicing through helping our patrons, in a wide range of academic disciplines, find the information they need when they need it.

LITERATURE REVIEW

Fundamentals of Library Instruction by Monty McAdoo was published in 2012 as a part of the American Library Association's Fundamentals Series [3]. While only having a brief section regarding online instruction, the book itself provides a well laid out introduction to library instruction including an interesting historical overview. *The Library Instruction Cookbook,* while again not focusing on distance learning,

provides advice in the form of short papers from dozens of librarians in seven general topic areas [4]. The papers are presented in cook book style with strengths, weaknesses and expected outcomes. The books main value is in collecting advice on a variety of topics from so many seasoned instructors.

While distance education classes are relatively new to the field of education some commonalities have emerged. Generally they are offered through web based asynchronous formats that allow students to work on projects individually without preset class or meeting times. But, as with all disciplines, change and experimentation are what keep us learning new and better of methods of meeting our patron's needs. Springfield College in Springfield, Massachusetts provides us with an example of this in Sheri Sochrin's article on their experimentation with using synchronous videoconferencing methods to deliver distance education library instruction. In her article, "Learning to Teach in a New Medium" published in the *Journal of Library Administration* the author provides a solid overview of the benefits, like face-to-face time with students, and the pitfalls, such as scheduling and technology, that resulted from the project. [5]

Regina Koury and Spencer Jardine's 2013 article "Library Instruction in a cloud: perspectives from the trenches" also offers us a review of a new format for delivering information literacy skills to students.[6] The authors review the use of web based software such as Google Apps and Zoho for creating library instruction modules. The article examines the trials and tribulations and makes a strong case for both developing, with little or no technical costs to institutions, library classes and using the software to effectively disseminate lessons, information and advice to other institutions looking to develop similar instruction programs. Pedagogy in online delivery of library instruction has also been explored, and while standardization has not yet formed, many instructors, like Sarah Reinbold in her recent article on using the ADDIE model to develop library instruction for medical students, have taken the profession a step in the right direction. [7] The ADDIE model uses analysis, design, development, implementation and

evaluation in a five phase strategy. The author shows how through implementing ADDIE instructors can develop and assess instruction for general level users or those with specific information needs. Finally Samantha Hines' article "How it's done: Examining distance education library instruction and assessment" provides an excellent overview of the topic with solid advice for anyone looking to develop or improve a library instruction program. [8]

BENEFITS OF LIBRARY INSTRUCTION

There are several distinct advantages to teaching research methods through on-line distance courses. The convenience factor for students is among the most important. Typically on-line classes do not have the traditional scheduled class meeting time which allows students more flexibility in working the class into their schedules. At Montana State University in Bozeman, MT USA we have experimented for several years with offering library research classes in both traditional classroom and on-line settings simultaneously. We have found that we average 50-70% more students in our on-line offerings than physical classroom classes. Students have repeatedly stated, in evaluations and in direct response to surveys, that they prefer the on-line versions due primarily to ease of scheduling. In addition the format itself enhances the students learning and familiarity with accessing quality resources electronically. Placing e-versions of articles, textbooks and links to other information sources like educational videos and interactive data sets provides students with a comfort level in accessing these materials. Through course guidance and familiarity they learn the informational pathways they need to follow and become accustomed to them through required redundant use.

Non-library faculty, and their institutions benefit by encouraging and supporting librarian taught research classes. Students with improved research skills are more likely to succeed in their academic careers which directly impacts student retention rates. Many studies have found links between grades and retention including the authors of the 2013 article "Learning Communities, Academic Performance, Attrition, and Retention:

A Four-Year Study" which found a clear relationship between academic performance and retention rates. [9] In addition if one agrees that students with solid research skills are more likely to succeed academically then it follows that they are also more likely to create publishable quality papers, receive national scholarships, move on to graduate school success, and all the other positive results that can come from improved academic performance. In our information-rich world research skills represent the base that success in academia, and beyond, is built upon. Institutions and the communities they serve also gain access to each other though library, and other, distance education classes. A university, while still needing to provide the educators and build the course platforms, can offer access to many more students than may be possible on their home campus. Many of the auxiliary services that on-campus students require like lecture halls, lights, heating, food services, are not needed by distance students. Universities can open their electronic doors to students living in communities that are not in the immediate area, or a commutable distance from the physical institution, through distance education. This both increases the potential student body for institutions and provides opportunities to populations that may not have had access to higher education otherwise.

In addition to the standardized information literacy skills taught in traditional library instruction classes many librarians are recognizing the need to teach our students how to find the information they will need after graduation when they are cutoff from the subscription databases, large libraries and information professionals they had access to while in school. Open access resources have been in-demand and growing in popularity. As more institutions of higher education realize the futility of their faculty producing information for academic journals while simultaneously being unable to afford access to the same academic journals, they are seeking to change the way the knowledge they foster and create is disseminated. Open access allows humanity to equally share in our scientific, cultural and artistic progress without the financial barriers that exist in the traditional for-profit publishing circles. Through teaching how to

locate, use and support open access publishers and databases we can help our students both retain sustainable access to the information they need and help them ultimately become part of the solution to the information haves and have not's in our world through use, participation and support of open access resources.

DESIGNING CLASSES AROUND STUDENT NEEDS

The beauty of teaching information literacy classes is that they can be designed to teach general skill sets, around projects or for specific disciplines. Library research classes can meet the needs of our students regardless of where they are in their academic careers. Classes that teach general skills sets are the most common and are often directed primarily at freshman. The idea is that teaching freshman basic information literacy skills and familiarizing them with the resources and services available to them through their libraries will positively impact their chances of academic success. While projects and topics covered vary from institution to institution generally classes will include instruction on database navigation, assessment of periodicals, keyword and advanced search methods, and use of library services like reference assistance, borrowing or inter library loan.

Distance learners expect a high level of service and instructor investment in their classes. A 2012 study of distance undergraduates at University of Gour Banga showed that they have similar attitudes and expectations of distance education classes regardless of sex, age or coming from rural or urban environments. [10] The first question that we need to ask when creating a distance education library research class is "what are the needs of the students?" The best way to find this out is to talk with teaching faculty. By determining what projects they will be assigned and the types of resources required librarians can develop lessons that provide the students with the ability to locate, evaluate and use the quality, quantity and type of resources required. In their 2006 article Buck, Islam and Syrkin summed up the relationship that should be between librarians and teaching faculty well when stating "The expertise of librarians makes them essential partners with faculty who want to infuse information literacy concepts into their teachings."[11] Where the topics, resources and work load will vary depending on the discipline and class level the first step is to always determine what the desired outcomes of the class will be in conjunction with teaching faculty outside of the library. Information literacy, like any other skill, is kept sharp and relevant through regular use. By designing information literacy classes around the needs of our students' librarians can positively impact their chances of academic success by providing them with the skill sets they need to effectively manage their academic workloads.

One of the problems with teaching information literacy skills is convincing the students that they need them. Troy Swanson in his chapter "Information is personal: critical information literacy and personal epistemology" argues that for the most part it is no longer administrators and faculty whom librarians need to convince but rather that we all must work together to convince our students they need to improve their information literacy skills. [12] Most of us in life at one time or another are confident we know how to do something well until we find out we don't. We all learn of a better way of doing something that we have been doing for years, be it planting our tomatoes, cleaning our homes or getting from point A to point B. There is always a better mousetrap being developed somewhere that changes the way we do things forever and once you see it you realize how much better it is however until that moment of discovery, you think what you have or do works just fine. The radio was great but television was more vibrant, colorful and rich with life, postal mail and the telegraph got the job done but email and instant messaging save us countless hours in communicating with others. Knowing how to do a Google search may eventually get you information on a selected topic but it is not as good as knowing how to find a peer reviewed article, primary source document, or authoritative statistic. Like a child taking medicine students may not want to do what is in their best interests to do. We as their guides, teachers and mentors must convince them that even though they think they are excellent researchers they need to brought, or even gently nudged, into the light as

only then they realize they had been standing in the shade their whole lives.

We have the most success in reaching students by working directly with faculty and administrators to require that their students take information literacy classes. Many universities have moved toward requiring that students take an information literacy class their freshman year in order to introduce them to the rigors of academic research and provide them with the base knowledge they will need to succeed in their individual programs of study. In addition many individual departments and degree programs, particularly at the graduate level, have begun to require that students take a research methods class that is either taught through the library or in conjunction with librarians.

IMPLIMENTING

There are many ways to implement distance education library research classes. The first step for librarians would be to talk with administrators regarding support and then speak to teaching faculty and determine the needs of the students. If a librarian initially finds admin reluctant they may be persuaded by citing non-library faculty enthusiasm for the concept. Librarian support and enthusiasm is the key to success. In a survey of academic libraries in the United States author Samantha Hines found that "the individual efforts of librarians were the major determinants for services offered by libraries with distant students." [13]

Once a decision has been made to proceed, proper research to find the tools of delivery is the next step. The choices are vast and varied, including open source course management software like Moodle, On-line library software systems like LibGuides or the use of websites, video conferencing or cloud computing services. Regardless of the delivery format or method chosen the needs of the users and the costs, which need to be within the means of the institution, must be considered.

Finally, researching lesson plans, assigning responsibilities, common goals, sustainability and assessment methods need to be evaluated and standards adopted. In order to be of value the course needs to remain relevant and deliver consistent outcomes for students. One of the many great things about librarians is that we freely disseminate information. In my personal experience librarians will, without hesitation, share lesson plans, best practices and wisdom learned through experience with anyone willing to ask. Those interested in implementing library research classes should draw heavily upon the bounty of knowledge and experience that exists in the library community and which is largely available to them simply by asking.

TEACHING

There are significant differences in teaching on-line and in-person classes and library research classes are no exception to the rule. Student bonding, synchronous experiences, and using inflection of voice or body language are a challenge in the on-line classroom. While there are things we can do as instructors to mitigate these negatives they are a persistent reality of teaching in the on-line environment. Some of the things we can do are very basic. The creation of a video of the instructor introducing themselves to their students and welcoming them to the class can provide those at a distance with a face, a presence, an actual human being that they can connect to the sterile, formatted lessons and email that will likely be the main forms of contact. Being attentive and responsive to student queries can help foster the impression that the instructor is invested in the class and genuinely cares about the student's success and overall experience with distance education. Instructor patience and attention to detail will make a class more relevant and easier to manage for the student. Describing lessons in detail, leaving little to the imagination, is important because we cannot be in the same room with our students to elaborate or explain the details they may have trouble grasping. These simple steps can help foster student bonding and the creation of a learning community. In a 2008 study by Menchaca and Bekele they found that creating a learning community in distance education classes was one of the key factors in their success. [14] As with any distance course, the more information an instructor can provide to students at the forefront the better students will understand what is expected from them, what they

can hope to gain and how they will need to manage their time in order to successfully accomplish the required tasks.

CONCLUSION

Educators know it is likely that they would not be teachers without the benefit of learning, through personal effort, the research skills they needed to succeed as learners and as educators. While we often did not have the benefits of formal library instruction classes, our students do, or can if we accept that librarians and teaching faculty are partners with a common mission of seeing our students succeed. Educators and librarians simply put need each other. Together we can increase our student's chances of success and play meaningful roles in their educational careers. Our students live in an information rich world and they need information literacy skills to thrive. Working together librarians and teaching faculty can ensure they have them. In conclusion working together just makes sense and everyone involved, the librarian, student and educator, win.

REFERENCES

1. ACRL. (2000). Information Literacy Competency Standards for Higher Education. Retrieved January 18, 2014 from http://www.ala.org/acrl/standards/informationliteracycompetency#ildef.
2. Gantz, J. & D. Reinsel. (2011). Extracting value from chaos. Retrieved January 18, 2014 from http://www.emc.com/collateral/analyst-reports/idc-extracting-value-from-chaos-ar.pdf .
3. McAdoo, M. (2012). *Fundamentals of Library Instruction*. Chicago: ALA.
4. Sittler, R & D. Cook, Ed. (2009). *The Library Instruction Cookbook*. Chicago: ACRL.
5. Sochrin, S. (2008). Learning to teach in a new medium. *Journal of Library Administration, 41(3-4),* 429-442.
6. Koury, R. & S. Jardine. (2013). Library instruction in a cloud: perspectives from the trenches. *OCLO Systems & Services, 29(3),* 161-169.
7. Reinbold, S. (2013). Using the ADDIE model in designing library instruction. *Medical Reference Services Quarterly, 32(3),* 244-256.
8. Hines, S. (2008). How it's done: examining distance education library instruction and assessment. *Journal of Library Administration, 48(3-4),* 467-478.
9. Popiolek, G, R. Fine & V. Eilman.(2013). Learning communities, academic performance, attrition, and retention: A four-year study. *Community college journal of research and practice, 37(11),* 828-838.
10. Halder, U. (2012). A study on distance learners' attitude toward distance education. *Indian Streams Research Journal, 2(7),* 1-4.
11. Buck, S., R. Islam, & D. Syrkin. (2006). Collaboration for distance information literacy instruction. *Journal of Library Administration, 45(1-2),* 63-7.
12. Swanson, T. (2010). Information is personal: critical information literacy and personal epistemology. In M. Accardi, E. Drabinski and A. Kumbier (Eds), Critical Library Instruction. Duluth, MN: Library Juice Press.
13. Hines, S. (2008).
14. Menchaca, M. & T. Bekele. (2008). Learner and instructor identified success factors in distance education. *Distance Education, 29(3)*, 231-252.