Jefferson College Library Assessment Summary
Library Use Instruction Fall 2017 – Spring 2018

Background

Jefferson College Library goes to great lengths to thoroughly assess, critique, and close the loop on trends and data derived from our Library Use Instruction assessment tools. The library has conducted multisession assessment since 2007, and provided bibliographic instruction on a wide variety of topics as far back as the 1970s. We endeavor to improve our pedagogy at every opportunity, and this year, chose to make some adjustments to our assessment tools. After looking at the data from our ongoing assessment efforts at the end of Fall 2017, we decided to make improvements based on some of the blind spots we noticed in previous data sets. One of these efforts included reconfiguring and combining our college studies assessment with our advanced assessment to have a single uniform tool to evaluate courses. This new tool entered use in Spring of 2018 and served a number of beneficial purposes:

- Included ordinal data collection and open-ended formative assessment. The new post-test has a Likert scale, and a final question that clarifies data collection, and still provides sufficient latitude for students to provide diverse insights.
- Clarifies categories on pre-test to facilitate more robust and rigorous collection of data.
- Improved back-end data collection spreadsheet that provides better insight into student retention of information, research experience, and potential opportunities to improve pedagogy.

As a result of the mid-year changes to our assessment tools, the data for the 2017-18 school year is split between two disparate but related models. These two models are coherent and congruent enough to still draw tentative conclusions. Efforts will be made to qualify any potential inconsistencies throughout this document. Furthermore, this change coincided with a shift in the physical location of our teaching efforts as a result of our library renovation. In Fall of 2017, our library was under construction, and our librarians were spread around campus mapped to an impromptu embedded strategy. For lack of specific library space, we began providing library use instruction in classrooms, rather than having students come to a designated library bibliographic instruction room. This may contribute to some idiosyncrasies with regard to data collection, which shall be explained as necessary.

Method

Most of the library’s formal pedagogical efforts are made through one-shot library use instruction sessions. In these sessions, one or two librarians collaborate with an instructor in a given subject to develop outlines, lessons, and demonstrations relevant to course assignments based on the needs of students. Our assessment efforts have demonstrated over time that tying instruction to a given assignment makes the instruction immediately relevant for students, rather than simply providing overarching lessons without a specific and immediately relevant cause to use the information that might be gleaned by students.
Our assessment changed from the following format:

We devised single a classroom assessment tool that combines multiple assessment techniques: the pre- and post-test, the one-minute paper, and muddiest point. Our assessment tool is a half-sheet of paper with 3-4 questions on the front and 2 questions on the back. This simple questionnaire is quick and easy for students to fill out during a one-hour class and provides useful information to the library. The first side of the sheet is the “pre-test” and asks students whether they have had previous bibliographic instruction at Jefferson College, the number of research assignments they have completed at Jefferson College, and the types of resources they used. The back of the questionnaire is the “post-test” and asks students, after the session is completed, to list two things they have learned (the one-minute paper) and one thing that is still confusing (the muddiest point). The same questionnaire is used for every one-shot instruction session, thus standardizing the method of assessment for each session taught by the Library. This standardization allows the Library to draw comparisons between classes (Introduction to College vs. General Psychology), for example, and also between students based on the number of prior bibliographic instruction sessions they have attended. Librarians tally the student answers to these questionnaires into a spreadsheet that automatically organizes the responses. The resulting data illuminate several important outcomes of our instruction as well as opportunities for improvement. (Library Assessment Summary Fall 2015_Spring 2016, 1-2)

Our new process, implemented in Spring 2018, follows the general methodology of the previous process with a few significant improvements. We have narrowed down the pre-test questions to three. The questions ask about previous coursework, research experience, and familiarity with library resources. The post-test, given in the final minutes of the class, includes a Likert scale asking about the student’s self-reported comprehension of the information provided, perception of the librarian’s utility with regard to imparting said information, and perception of students own level of appreciation for researching using library resources. The post-test ends with an open-ended question about what seems most relevant to students after the LUI. The last question invites students to synthesize and categorize the information they glean from the LUI, and coincides with ACRL recommendations with regard to advanced frameworks for information literacy (i.e. Information has value, Scholarship as conversation). See ACRL Framework. As we assess and compile the results from the new tool, we began to redevelop our spreadsheet to account for the new questions, and to provide us more ready insight into the results.

Results and Discussion: Fall 2017

In fall of 2017, we taught 61 sessions at our Hillsboro campus, 19 at our Arnold Campus and one at a local high school for dual-enrollment history/comp I. In these classes combined, we reached 1,704 students (some may be counted twice or more if they were enrolled in multiple courses that each had instruction sessions). The graph below reflects the classes for which we taught LUI sessions in Fall 2017:
Up until Fall 2017, we gave a separate assessment survey to college experience classes, and to all other (advanced) courses. The data derived from the advanced session assessments (defined as anything other than a college experience LUI) tended to be so unwieldy as to defy ready application or interpretation. Therefore, the data below reflects only the assessment used in the college experience classes. Our assessment results for Fall 2017 confirmed historic trends regarding student use of scholarly sources, experience with research, and comfort-level with sources and research. In Fall 2017, we asked in our college experience classes the following questions:

**LUI SUBJECT BREAKDOWN FALL 2017**

- College Exp: 42%
- Science: 7%
- Soc. Science: 23%
- English: 24%
- Career Tech: 3%
- Dual Enroll: 1%

**Have You ever done research for an assignment before?**

- Yes: 79%
- No: 11%
- Not Sure: 10%

**What resources have you used in your research?**

- No response
- Other Library Resources
- Scholarly Articles
- Websites
- Magazines
- Books

In Fall 2017, we asked in our college experience classes the following questions:
One takeaway from these results is that students tend to overestimate their skill in doing research. Students make incorrect or incomplete assessments of their level of skill performing academic research in their college experience classes, and tend to overestimate or fail to assess their ability to perform research, while pointing to vague sources or less-than-ideal sources (websites), or failing to point to any sources at all for scholarly research rather than specific sources like scholarly articles that form the basis for academic inquiry. College experience classes should be among the first classes students take at Jefferson College, and students are therefore not expected to be able to perform skilled research at a college level upon entering the class. That said, we would expect that they should recognize gaps in their ability to perform academic research. Some emergent self-awareness is observable in the responses students gave in the post test. After the LUI session, students were much more likely to point to scholarly articles, librarians, and specific relevant websites as reliable sources. Students were also much less likely to fail to answer at all in the post test than they were in the pre-test. Our interpretation of this phenomenon is that students are more likely to understand what sources are available after library instruction than they were before library instruction.

**Results and Discussion: Spring 2018**

Spring semesters are not generally as full as Fall semesters when it comes to LUIs. This is partially because most students take college experience classes in the fall. Those who take college experience classes in the Spring tend to be transfer students, or students who have failed the previous fall session and been compelled to take the class again, although there are some students who start classes in the spring who don’t fall into either category. Additionally, in Spring 2018 the library renovation was completed, and librarians allocated considerable time to installing collections, developing new policies, and integrating new systems like LibCal into the reimagined library space. This necessitated a decision to temporary cut back on the number of classes taught at the Arnold campus. In spring of 2017, we taught 27 sessions at our Hillsboro campus, 9 at our Arnold Campus and one at a local high school for dual-enrollment history/comp I. In these classes combined, we reached 683 students (again, some may be
counted twice or more if they were enrolled in multiple courses that each had instruction sessions. The graph below reflects the classes for which we taught LUI sessions in Spring 2018:

Comparisons between the pre and post-test questions in previous semesters point to a clear ambivalence (if not confusion) about what constitutes “research”. Librarians reconfigured questions for Spring 2018 to specifically ask how many times (if any) students met with librarians over the course of their academic experience at Jefferson College, rather than broadly asking about research. Librarians also created a Likert scale for the post-test section of the assessment to facilitate a more accurate determination with regard to student attitudes about research, and to provide an open-ended assessment about which resources students found to be most relevant. This data helps librarians to specifically focus future efforts. The tool used prior to Spring 2018 simply pointed to a trend in which students were more aware of various resources. The previous tool yielded general data that was not as helpful as expected in determining which resources are used by students than it is in simply determining that LUI sessions make students aware of resources in general. This was one major reason for the redesigned assessment for Spring 2018. As a result of this change, comparisons between college experience LUIs and advanced LUIs prior to Spring 2018 are between two sets of data that are not neatly comparable, because the two assessments asked different questions. This means that comparisons between the respective datasets were not as rigorous as they might be if the same questions were asked of each group and in every assessment.

For the near future, the same assessment tool will be used to ensure that our data may be compared evenly, semester to semester. In an effort to improve data quality, the new tool developed for Spring 2018 combines student responses from the college experience LUIs and the advanced LUIs in a single
set of results. The below bar chart compares 14 science and social science courses (245 students total), 10 English courses (124 students total), and 11 college experience courses (179 students total).

The below pie graphs depict the answers students gave to the question “How many research assignments have you completed at Jefferson College?” The results indicate what librarians might expect: That students in the college experience courses have completed relatively few research assignments, but as students progress in the more advanced courses (English Comp I & 2, Psychology, Sociology, etc), they are required to perform more research. One might extrapolate from this data that more research projects result in more interaction with librarians, although more specific assessments would need to be done to confirm this.
In the third question on the Spring 2018 pre-test, students were asked, “What research resources were required for your assignments?” The options were: books, magazines/newspapers, databases, websites, scholarly articles, and other (with a blank to enter a specific response). Students were allowed to check multiple responses. Librarians changed the language for the Spring 2018 assessment to ask specifically what resources students are supposed to have been using in their research rather than what resources they actually used. In terms of parsing the different options for responses: Databases and scholarly articles do overlap as professional librarians understand, but previous experience and collective librarian anecdotal evidence suggests that students don’t necessarily understand what ‘database’ means. The term is still included to capture students with a sophisticated understanding of research processes. Part of library use instruction includes explaining how databases work, how to recognize a scholarly article, and how to differentiate different types of sources, so it is reasonable to expect that the more classes a student has taken with us, the more likely they are to understand the nature of these scholarly resources (i.e. know how to identify a database, and recognize it as a type of “research resource”). Unfortunately, results indicate that students use the term ‘database’, ‘website’ and ‘scholarly article’ somewhat interchangeably. The number of students who answered both ‘databases’, ‘websites’ and ‘scholarly articles’ suggests that librarians ought to spend more time delineating the three terms, but also that students grasp intuitively that the three are related. More research needs to be done into the nature of this relationship, but steps will be taken in future semesters to address this potential confusion.

The post-test begun in Spring 2018 yielded results about student perceptions of the usefulness and effectiveness of the specific LUI session they had just attended. Students were asked to check strongly agree, agree, disagree, or strongly disagree when asked three questions about their comprehension of the information presented to them during the LUI, the responsiveness of the librarian, and the resulting
improvement of their body of knowledge with respect to research as a result of the instruction. The results were largely positive for each category of class, across all three questions.
The final question on the Spring 2018 post-test asked, “What did you learn during this presentation (LUI) that you could pass on to another students?” This question’s phrasing was chosen in an effort to take the assessment out of the context of what librarians wanted to explain, and put it into the context of what students were able to make use of, or perceived they could potentially make use of in a future context. In other words, what seems important enough to pass on to a friend? Since this question was open-ended, results were coded broadly into 11 categories, and sample artifacts were recorded from each class in our assessment spreadsheet (See Appendix A). The results were as follows:
Conclusion

The results of the last post-test question for Spring 2018 indicate that students do grasp the importance of databases in the immediate aftermath of the LUI session, but the preliminary results from pre-tests of advanced sessions in subsequent semesters suggest that students may fail to retain a sense of the relevance of databases by the time they get to the next semester or class. This is suggested also by the lack of focus on databases in the pretests for Spring 2018, since librarians emphasized databases extensively in previous semesters as well. There are a number of possible explanations for this, including student overconfidence and lack of opportunities to put the research skills to use in classes. Completed results from future assessments will need to be compiled to determine if this is a trend, or an anomaly. Despite the challenges faced by the librarians during the transition to a new building, and a new assessment tool, the first set of results from Spring 2018 are encouraging, specifically the Likert results. Students also value libraries and librarians in general as sources of access to information as indicated in the bar chart above. As can be plainly seen, the new tool yields more granular data. New sets include both quantitative and qualitative data, as well as closed and open-ended questions to assess as thoroughly as possible what can be improved in Library Use Instruction sessions in the future, and where librarians should focus their pedagogical efforts.

Submitted by Joe Kohlburn, Emerging Technologies Librarian 2/1/19 11:34 am

Appendix A

In addition to coding the responses to the final question on the Spring 2018 post-test, two random artifacts were selected from each class to reflect a range of responses to library use instruction. Below, these are listed by overall category of course.

In response to: What did you learn during this presentation (LUI) that you could pass on to another student?

**College Experience**

You can search in google just for .edu sites!
How to check sources, liability [sic], and credibility. Use Jeff Co website
I don't talk to people about libraries.
You can't trust every website.
I learned how to access the databases for information.
The steps to tell what your [sic] reading is true.
Subject terms and filter usage on EBSCO.
Be careful what you read on the internet. Check your sources.
I learned how to fact check a website to make sure it is a reputable one.
You can always ask for help.
Ways to find books, articles, & how to spot fake news.
I learned how to access a website and determine if it is reliable and accurate.
I could teach them how to search for a book that we have access to, as well as how to know what a good source is.
I learned the library has more resources than I thought.
Determining whether something is fake news or not.
How to find an article and limit the source to pinpoint what I'm looking for.
I learned the steps to checking if news is fake or not, and I would share that with other students.
How to use library resources
I learned about another resource I can use for research other than google.
Some 'experts' can put out information, have a PhD, be legit, but still be a quack. Inquire more than you think you should.
The information about fake news & using the databases on the library site.
How to look up on [sic] information and use online resources in the library.

English

A librarian comes to every class I already heard this 3 times so get used to it [sic].
How to checkout ebooks and use the article search.
This helped my understanding of what/how to write a paper.
The wheel on Artemis made it a lot easier to pick different articles about my topic.
How to find critic reviews. How to use Artemis.
I loved the picture graph option [on Artemis].
I have to learn by trial and error.
More campus computer use... How to have easier acess to information.
You can't just search in a regular sentence in a database. You have to think outside the box.
The use of Archway/MOBIUS and that you can get just about any book you might need.
A librarian comes to every class I already heard this 3 times so get used to it [sic].
How to checkout ebooks and use the article search.
This helped my understanding of what/how to write a paper.
The wheel on Artemis made it a lot easier to pick different articles about my topic.
How to find critic reviews. How to use Artemis.
I loved the picture graph option [on Artemis].
I have to learn by trial and error.
More campus computer use... How to have easier acess to information.
You can’t just search in a regular sentence in a database. You have to think outside the box.
The use of Archway/MOBIUS and that you can get just about any book you might need.

Social Sciences

the soci* trick
The Imagequest tab has photos that have been proofed so that we can use them.
Double the information about the library because I took this twice before.
EBSCOhost is a wonderful tool to help with research articles.
Where the library is.
There are many different resources available, also a librarian to answer questions.
How to spot fake news.
Talk to librarians!
IT IS stands for Integrated Taxonomic Information System.
The libguides are pretty neat. I wish they came up during college LUI.
That most databases can be used for most sources and research.
Vanilla Ice is a plagiarist.
How to find real news.
Subject thesaurus to find things specific to your subject.
That searching this way is better than just google.
I have used the library sources & databases many times before, but this is the first time ImageQuest was specifically pointed out to me, and I thought it was very interesting.
Yes, I understand what was taught, but am not technologically literate that I could pass on anything.
I learned that you can group multiple articles together to send to yourself.
Libguides is a helpful resource.
Just how to navigate the library on the website. Knowing that there is a way to access all kinds of information is extremely helpful.
Watch out for fake news and read beyond the headlines.
That there is an embargo on some articles.
I learned the best resources and steps to find information needed for papers and presentations in my college career.
How to easily find scholarly articles to help fully understand how to properly find the information I am looking for.
How to search a topic by coming up with a question to find your answer.
*How to look up resources online -> specifically, how to look up Grove Music Online. * What to do to avoid plagiarism.
How to navigate databases and how to spot reliable articles.
"The library now had [sic] books. Snopes has been fact checked by other fact checkers and is fake news. Being investigated for drugs and prostitution. [sic]"