What Students Learn (or don't) During the First-Year Composition Library Research Session

Introduction

In 2015-2016, we significantly revised our first-year programmatic curriculum in the WRD 104 / HON 100 [1] classroom. After two years of the new program, we decided to assess our changes. We wanted to determine if the Library's WRD 104 / HON 100 learning outcomes were being met, and also to identify areas for improvement in the curriculum.

The revised curriculum employs a flipped classroom model. It consists of two pre-library research session activities and an emphasis on discussion and hands-on searching for the in-class instruction. Before the library research session, students complete an online tutorial about developing a research question, and explore their own research question based on the techniques described in the tutorial (mindmapping, free writing, 5 Ws.) Then, students watch a video demonstrating how to search Academic Search Complete, perform their own search for an article, and bring that article to class. During the library research session, librarians lead discussions and provide activities for the students on topic development, searching for articles, and evaluation of sources. In addition, librarians leave time for hands-on searching so that students can get personalized help.

To assess our curriculum, we implemented a four-question student feedback survey. It was administered at the end of each library research session by the librarian using a Qualtrics form. We piloted the survey in Autumn 2017, made adjustments to the questions, and administered the survey for analysis during the Winter and Spring Quarters of 2018. We received 700 responses, collected from approximately 40 different library research sessions.

The learning outcomes for WRD 104 / HON 100 class were established in 2013. These are distinct from our undergraduate library learning outcomes, which cover expectations for a broader range of classes. For first-year WRD 104 / HON 100 instruction, the learning outcomes state that after the class students should be able to:

1. Explore a **topic** through mind mapping or similar techniques in order to develop a properly scoped research question.
2. Identify and apply criteria to **evaluate** information in order to select appropriate, authoritative resources for their research and differentiate between scholarly and non-scholarly sources.

[1] Writing, Rhetoric, and Discourse (WRD) 104: Composition and Rhetoric II is a required course in the University's Liberal Studies Core, and Honors 100: Rhetoric and Critical Inquiry is the Honors program equivalent

3. Choose appropriate search terms in order to conduct effective **searches** in article databases and retrieve relevant results.
4. Understand the support roles played by **librarians** and be able to contact a librarian for research help.

Methodology

Librarians piloted the feedback survey in the fall of 2017, made adjustments and ran the survey for results in the Winter and Spring quarters of 2018. Each librarian was asked to leave some time at the end of class for students to fill out the survey, and to provide the URL for the qualtrics survey to the students. There were 52 library research sessions in Winter 2018, and 43 library research sessions in Spring 2018, for a total of 95. Each class has a cap of 25 students. The total possible number of responses amounts to 2,375 students across 95 different classes. The total number of responses received for this survey was 700 (29%) across approximately 40 different library research sessions (42%).

The survey asked the following four open-ended questions:

1. What are three things you learned today?
2. What is one question you still have?
3. What is one way you will apply what you learned today to your research assignment (be specific, please)?
4. Any other thoughts you'd like to share with us about how we can improve this workshop?

We used inductive methods to code student responses, determining the overarching themes based on the provided feedback. Some of the challenges that we encountered were very short responses that weren't particularly descriptive, as well as vague vocabulary used by the students in their responses. The words students used were open to interpretation, and often did not align with the ways that librarians describe research behavior. For example, students interchanged the terms 'databases,' 'search engines,' and 'websites.' Similarly, they made no distinction among the words 'sources,' 'resources,' and 'tools.' For example, one student wrote that they learned "how to navigate the DePaul university resources." This could be interpreted as navigating the website, or a certain database, or even about asking a librarian for help. Another common example was a response that the student learned "How to narrow or expand research." The student may have been referring to topic development, or how to appropriately use boolean search logic in a database. The correct interpretation would determine which learning outcome was being met, but the responses were often not specific or descriptive enough to confidently code them.

Two investigators divided the anonymized data in half for analysis. In order to create consistency in the coding of responses, the investigators met repeatedly over the course of several weeks to discuss how to interpret the data and to establish guidelines for consistency in our approach. While the investigators may not have been able to always determine the student's intention, ultimately they were able to

achieve reasonable inter-rater reliability.

Results

This section will describe the results from each of the posed questions.

Question 1: "What three things did you learn?"

Investigators collected 2100 responses, and sorted them into the following 11 categories:

Categories	Count (N=2100)	%
Using Databases	692	33%
Evaluation	355	17%
Topic Development	185	9%
Information Landscape	166	8%
Navigation	150	7%
Help	141	7%
Research Process	141	7%
Misc.	101	5%
Ignore	81	4%
Books	64	3%
Citing	24	1%

Fig. 1. What three things did you learn. N= (2100)

81 (3.9%) of the responses were ultimately discarded, as they were either blank or too ambiguous to code.

80% (n=1689) of responses fell into 6 categories: using databases (33%), evaluation (17%), topic development (9%), the information landscape (8%), navigation (7%), and help (7%). These responses

closely correspond to our learning outcomes. Through careful analysis of the data, investigators established the following definitions for each of the most common responses:

Category	Definition	Example
Using Databases	● Anything indicating searching within a database, using limiting techniques, saving articles, names of databases (not reference databases) including google scholar ● Includes the words search or find in the context of an article or a source, but not in the context of finding a database.	*"How to use Academic Search Complete"*
Evaluation	● articulates some of the criteria used for evaluating an article or a journal ● Includes the words credible, scholarly, quality, "scholarly journals"	*"Difference between scholarly and popular article"* *"How to check an article's credibility"*
Topic Development	● All things related to developing a topic or research question including using reference databases ● Includes the words topic, mindmapping, 5Ws ● Might mention a specific database like "Credo"	*"How to develop a research question"* *"How to make a mindmap"*
Information Landscape	● Indicates knowledge of a variety of research databases or tools ● Refers to the socio-political implications of information production	*"Depaul library has multiple databases"*
Navigation	● How to use the library website ● How to find/access a tool (database or research guide) ● Where to find/access a tool (database or research guide)	*"How to find research guides"* *"Where to find databases"*
Help	● Includes the words chat, appointment, librarian, or help	*"How to use the chat on the library website"* *"How to contact the librarians"*

Fig. 2: Defining the top responses to What three things did you learn?

Question 2: "What is one question you still have?"

Out of 700 students taking the survey, we received 299 responses to this question. Investigators coded these with overlapping, but different categories than the first question. The graph below shows the top 10 categories.

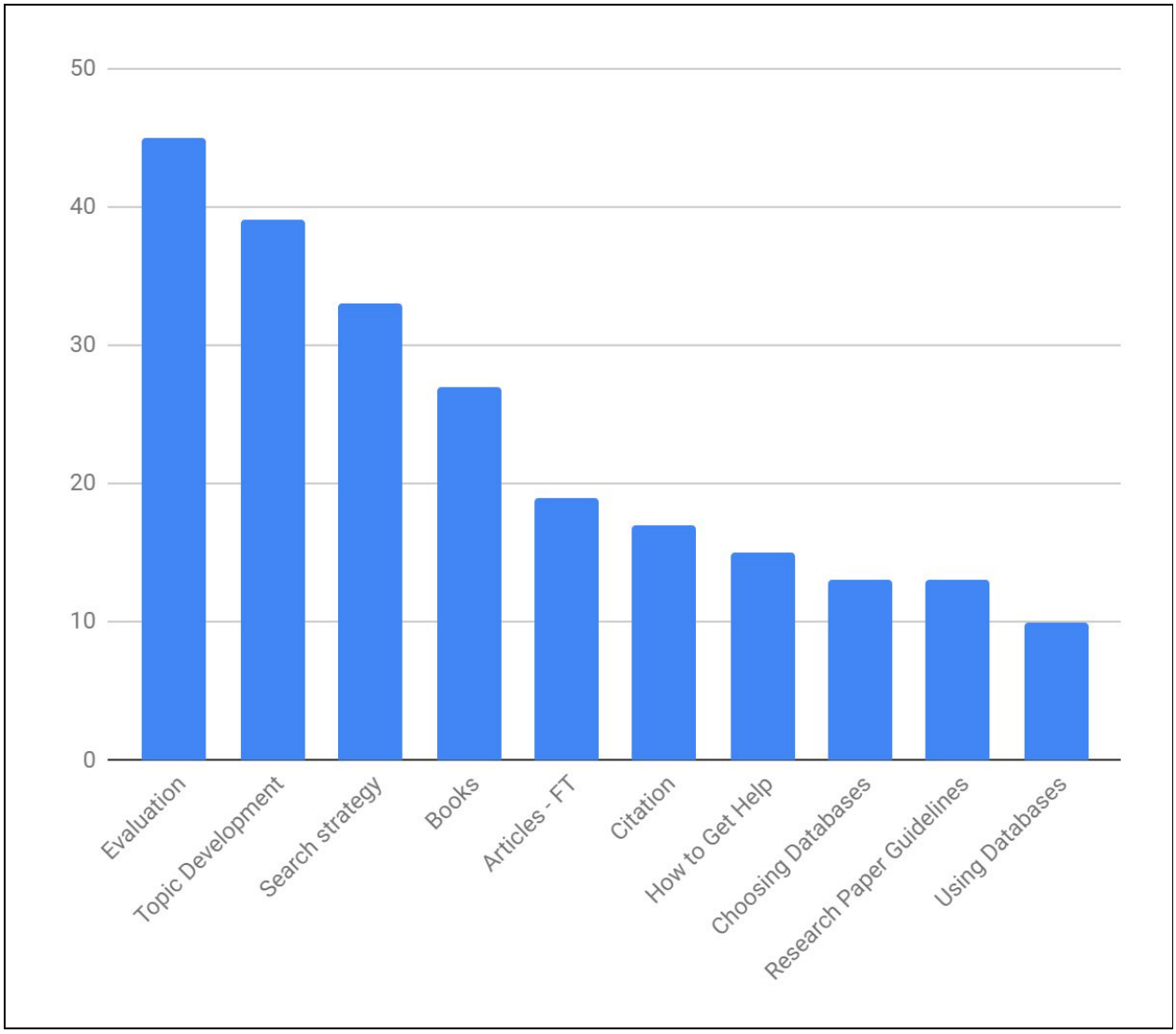

Fig. 3. Responses to What is one question you still have. N=299

The top 5 responses, with examples, are highlighted in Fig. 4:

Top Responses	Number of Responses	Example
Evaluation	45	*"How much can you trust articles from news sources like NYT?"*
Topic Development	39	*"Is my topic too broad?"*
Search Strategy	33	*"What if I can't find good sources?"*
Books	27	*"What about books?"*
Articles (Full Text)	19	*"If there is no full text, is there a way to find the full text?"*

Fig. 4. Top 5 responses: What one question do you still have?

Many of these top responses overlap with answers to the first question: "Name three things you learned." So, while students learned something about "evaluating sources" and "topic development," they still had more questions. This suggests that students were exposed to challenging concepts and were starting to think critically about them.

Question 3: What is one way you will apply what you learned today to your research assignment (be specific, please)?

Investigators ultimately decided not to include the answers to question #3 "What is one way you will apply what you learned today to your research assignment (be specific, please)" in this analysis as the question elicited little useful information, beyond expressions of increased confidence. The feedback included answers such as: "I will use the database to research my topic," and "When searching for research for my paper I will be able to use the databases more efficiently." If the library decides to pursue a similar feedback survey in the future, this question would need to be significantly revised in order to elicit actionable answers.

Question 4: "Any other thoughts you'd like to share with us about how we can improve this workshop?"

When asked for additional thoughts to share, 414 total responses were recorded. 266 were substantive. Non-substantive comments (n=148) included responses like: "nope", "n/a", etc. Of those 266 substantive comments, 74.1% (n=197) wrote something positive (ex. enjoyable, helpful, informative, or praise for an individual librarian), 8.6% (n=23) wrote something negative (ex. already knew the information, boring, confusing, or the room was too hot, bright, etc.). 17.3% (n=46) included a constructive suggestion (ex. more interactive group work, or more time for own research/topic.)

Discussion

The results from this feedback survey are very encouraging. Investigators mapped the answers from the first question to the course outcomes, and determined that what students reported learning aligned with the course learning outcomes. Fig. 5 (below) shows the top categories that most closely correspond to our learning outcomes, with sample responses.

Category /Learning Outcome	Number (%)	Example
Using Databases / Search	714 (51.4%)	"How to search for articles" "How to email an article to yourself with citations" "how to narrow down my searches on databases"
Evaluation / Evaluate	352 (25.3%)	"how to discern a scholarly article from a popular one"
Topic Development / Topic	182 (8.8%)	"How to narrow down a research topic"
Help / Librarian	142 (10.2%)	"How to contact a librarian for help."

Fig. 5. What students reported learning, mapped to learning outcomes

1390 of 2100 responses (66%) demonstrated that what students reported learning aligned with one of the WRD 104 / HON 100 learning outcomes, as visualized in Figure 6.

Learning Outcomes

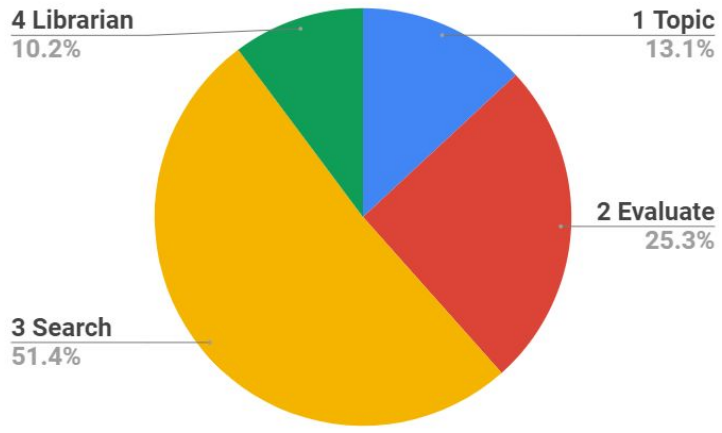

Fig. 6. Students' responses, aligned with Learning Outcomes

Sharing Results and Next Steps

After analyzing the feedback results, the investigators convened two separate meetings, first with faculty from the First-Year Writing Program, where these classes originate, and second with library staff in order to share the findings widely. First-Year Writing faculty were engaged in the discussion and appreciative of library efforts and successes. They provided suggestions for making the curriculum even more useful and engaging. They suggested librarians remain flexible in their approach to teaching to be better able to respond to class dynamics. They also asked for librarians to emphasize the liaison roles that library staff have with different departments, so that in-depth student questions would be routed to the most appropriate librarian. And finally, they asked librarians to work on mirroring the vocabulary faculty use during the classes, e.g. stakeholders, claims, evidence, etc.

After discussion of results with the library staff, recommendations were made to revise the curriculum going forward. These recommendations were made based on the results of the survey as well as feedback from the First-Year Writing faculty. Beginning with the spring quarter 2019 classes, it was recommended that librarians should bring the topic of searching for and finding books into the information literacy curriculum for these classes. There had been a conscious decision to remove this topic from these classes, for several reasons. First, there is a separate course that included an assignment about finding books, and that was intended to be the appropriate place for this instruction. Second, most of the research assignments in the WRD classes lend themselves toward research into periodical literature rather than books. Ultimately, though, most of the students had enough questions about how to find books that the library decided to include this in the curriculum.

In addition to discussing books, recommendations were made to emphasize the evaluation of materials, and to go beyond the dichotomy of scholarly vs. popular. And finally, instruction librarians were reminded of the importance of leaving enough time for student hands-on work.

Conclusion

This assessment project, which analyzed WRD 104 / HON 100 student feedback survey data, investigated whether the Library's course-level learning outcomes were being met, and identified areas for improvement in the curriculum. The data confirms that what students reported learning aligned with these learning outcomes, and we have already acted on improving our curriculum, based on student and instructor feedback. Future assessment of the WRD 104 / HON 100 curriculum may be most beneficial if targeted to a specific learning outcome. While we learned a lot, the broad nature of the questions asked in this assessment can be difficult to interpret. Still, this project can provide a model for future assessment of the Library's undergraduate learning outcomes.