

UW-Madison Libraries Communication-A Assessment Report Academic Year 2016-2017

Introduction

The EI grant that funded the redesign of the Communication-A (Comm-A) Library module had two articulated assessment goals:

- Engage the Undergraduate Education Committee (UGEC) Comm-A Directors Subcommittee and the Libraries' Communication-A Planning Committee in regular cycles of review, assessment, and planning to sustain quality long term.
- Solve large-scale integration and use problems such as how students access the tutorial in the context of their courses; integration of assessment components into course; certification of tutorial completion; and the availability of the tutorial on a variety of devices.

To meet these goals the library collaborated with UGEC's Elaine Klein to develop a holistic approach to assessing student learning and desired outcomes in both the tutorial and face-to-face Comm-A library module. All coding and activities are conducted with intentionality and are (and will be) used for curriculum improvements each semester. The Library Comm-A committee has already begun to use the data in curriculum design, tutorial improvements, and collaborative conversations with instructors, governance, and students. This document will be used as a template to organize assessment outcomes over time.

Learning Outcomes Assessed

General Education UW-Madison Libraries Assigned Outcomes

- Develop and adapt information seeking strategies in order to access information effectively
- Evaluate information retrieved and select information sources appropriate to the particular research need

Blended UW-Madison Libraries Module Outcomes

- Identify information sources appropriate for the research need
- Explain the research process and select scholarly articles relevant to the research question
- Apply information-seeking strategies
- Evaluate search results
- Refine search strategies to access information effectively
- Describe how to seek help from a librarian

Assessment Outcomes

Learning Outcome	Course Map Indicator	Assessment Tool/Method
Identify information sources appropriate for the research need	<ul style="list-style-type: none"> • Distinguish between information sources • Compare/contrast information published in different types of sources • Know where to go to find articles via the Library website 	<ul style="list-style-type: none"> • Online module student quiz questions • Online module student quiz questions • In class practice time, one minute paper reflection (thematic response coding, see appendices)

Learning Outcome	Course Map Indicator	Assessment Tool/Method
Explain the research process and select scholarly articles relevant to the research question	<ul style="list-style-type: none"> • Identify a scholarly article by applying criteria • Describe the scholarly publishing process 	<ul style="list-style-type: none"> • Online module student quiz questions, spring semester instructor survey, part 2 of in-class activity • Online module student quiz questions, spring semester instructor survey, part II of in-class activity
Apply information-seeking strategies	<ul style="list-style-type: none"> • Research question is formulated • Descriptive keywords can be identified from developed question 	<ul style="list-style-type: none"> • Online module student quiz questions (quality coding project, see appendices), part II of in-class activity • Online module student quiz questions (quality coding project, see appendices), part II of in-class activity
Evaluate search results criteria	<ul style="list-style-type: none"> • Identify whether results are relevant to research question • Make a judgment about criteria points after reading results 	<ul style="list-style-type: none"> • Online module student quiz questions, spring semester instructor survey, one minute paper reflection (thematic response coding, see appendices), student in-class worksheet • Online module student quiz questions, spring semester instructor survey, one minute paper reflection (thematic response coding, see appendices), student in-class worksheet
Refine search strategies to access information effectively	<ul style="list-style-type: none"> • Refine search statement • Develop alternate keywords • Examine results for clues to broaden/narrow 	<ul style="list-style-type: none"> • Part II of in-class activity, spring semester instructor survey • Online module student quiz questions, part II of in-class activity, spring semester instructor survey, one minute paper reflection (thematic response coding, see appendices) • Part II of in-class activity, spring semester instructor survey, one minute paper reflection (thematic response coding, see appendices)
Describe how to seek help from a librarian	<ul style="list-style-type: none"> • Describe where help is or point where they can find help 	<ul style="list-style-type: none"> • One minute paper reflection (thematic response coding, see appendices)

Planned Curriculum Changes Due to Assessment Conducted

- 1. *Redesign of Module #3 (Information Seeking Strategies):*** From last year's assessment data, along with discussions with teaching librarians, it was apparent that some students were having difficulty developing a focused research question using the prompts within the *Developing a Research Question* activity. Some students' topics appeared too broad, or students did not address specific issues related to their topic. Course instructors often pointed to this very interactive activity as one of the major highlights of the tutorial, and we wanted it to be as useful as possible for students without necessarily making changes to the activity itself. We decided to develop a new activity/prompt to precede *Developing a Research Question* in order to encourage students to read about their broad topic first (using the free web) and determine any issues or controversies associated with the topic. We will reassess students' research questions this coming year after implementation of the new prompt. We should note that, despite the broad topics we were seeing this year, our assessment data still indicates a slight improvement in developed research questions across all courses compared to last year.
- 2. *Revision to Part I of in-class session:*** From our assessments, particularly responses gathered from the Communication A instructor survey along with discussions with teaching librarians, it was apparent that some alterations needed to be made to the first class activity in order to create a more seamless transition from tutorial to library session. In tutorial Modules #4 and #5, students were already experimenting with article databases, but during the in-class session we were encouraging students to find a useful, relevant source from a library database *or the free web*, and the latter seemed incongruous at this point in students' research. As a result, students are encouraged to search a library database only in class in order to find relevant sources for their topics. The activity should take less time, and ensure that we are meeting our learning outcomes (particularly the higher-level aspects of *Apply Information Seeking Strategies* and *Refine Search Strategies to Access Information Effectively*). Also, the redesign of Module #3 (see above) provides students the option to search the free web before the library session.
- 3. *Adding a reflection question at the conclusion of online Module #6:*** The results of coding of the one-minute paper at the end of the library session indicated that students seemed particularly focused on the immediate curricular interaction (the in-class session). After discussing with UW testing and evaluation experts, staff confirmed that the best practice would be to include a one-minute paper reflection at the end of the online modules. We hope that adding this reflection will allow us to capture learning more clearly from both interactions in our blended model. We are working with our programmers on a timeline for implementation. (Note: this planned change was included in last year's report; we are planning to revisit the change again this year.)

Reflection

Overall, we believe our second year with the Comm-A Library Module was a success. Assessment measures continue to show progress in student learning for both lower and higher order learning outcomes articulated as goals in the two-part module. The in-class student reflection responses, in particular ("After completing the online tutorial and library session, what will you do differently while researching?") strongly coincide with our Library Module learning outcomes. Similar to last year, we implemented adjustments to the curriculum over the summer due to results from instructor survey data, students' apparent preparedness for the in-class library session (gauged through an assessment of student research questions) and feedback from teaching librarians. Although we used a holistic assessment approach again this year to set a foundation of assessment going forward,

we look forward to focusing on specific items over time and continually improving the information literacy instruction that we offer.

Course Specific Reflection

Text customized for each Communication-A course in Communication Arts, English, ESL, and Life Sciences Communication. For this information, email Sheila Stoeckel.

Appendix A: Assessment Methods Conducted & Findings

Introduction – Comm-A Instructor Survey

Each spring, the Libraries survey Comm-A instructors to assess their experience with the library class session for their course. Although the survey focuses on the in-person session, some questions specifically address the tutorial and its effectiveness in conjunction with the class session (blended learning module). Similar to Spring 2016, we included an additional survey question this year that focused specifically on the online tutorial.

Method

In April 2017, the Comm-A Instructor Survey was sent to all 71 instructors who taught the course in Spring 2017. Thirty of the 71 instructors completed the survey, for a response rate of 42%.

Participation by Course:

Course	%	Count
Communication Arts 100	26.67%	8
English 100	33.33%	10
English as a Second Language 118	26.67%	8
Life Sciences Communication 100	13.33%	4
Total	100%	30

Survey Questions that Address the Online Tutorial:

1. What part(s) of the Comm-A library module (Sift & Winnow tutorial and library class session(s)) helped your students most with their research?
(multiple choice response)
2. The library module (Sift & Winnow tutorial and the library class session(s)) helped prepare your students to meet the research criteria of your assignments.
(multiple choice response)
3. After the library module, students are now more able to:
 - Develop and adapt information seeking strategies in order to access information effectively.
 - Evaluate information retrieved and select information sources appropriate to the research need.
 - Identify scholarly sources
(multiple choice response)
4. How did the Sift & Winnow tutorial prepare your students for the library class session? Please explain, or share other feedback you may have about the tutorial. As a reminder, here are the titles

of the six steps within the tutorial. (Image of tutorial module titles placed here: *Ecosystem of Information Sources, Scholarly Communication, Information Seeking Strategies, Evaluating Search Results, Refine Search Strategies, Help from Librarians*)
(text response)

Results

1. What part(s) of the Comm-A library module (Sift & Winnow tutorial and library class session(s)) helped your students most with their research?

(multiple choice response)

Question	Communication Arts 100		English 100		English as a Second Language 118		Life Sciences Communication 100		Total
Sift & Winnow (online tutorial)	50.00%	1	0.00%	0	0.00%	0	50.00%	1	2
Library class session(s)	41.67%	5	16.67%	2	16.67%	2	25.00%	3	12
Sift & Winnow and the library class session(s) were equally beneficial	6.67%	1	53.33%	8	40.00%	6	0.00%	0	15
Neither Sift & Winnow nor the library class session(s) was beneficial	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

2. The library module (Sift & Winnow tutorial and the library class session(s)) helped prepare your students to meet the research criteria of your assignments.

(multiple choice response)

Question	Communication Arts 100		English 100		English as a Second Language 118		Life Sciences Communication 100		Total
Agree	28.00%	7	36.00%	9	32.00%	8	4.00%	1	25
Unsure	20.00%	1	20.00%	1	0.00%	0	60.00%	3	5
Disagree	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

3. After the library module, students are now more able to:

- Develop and adapt information seeking strategies in order to access information effectively.
- Evaluate information retrieved and select information sources appropriate to the research need.

- Identify scholarly sources
(multiple choice response)

Question: Communication Arts 100	Agree		Too Soon to Tell Right Now		Disagree		Total
Develop and adapt information seeking strategies in order to access information effectively	75.00%	6	25.00%	2	0.00%	0	8
Evaluate information retrieved and select information sources appropriate to their particular research need	87.50%	7	12.50%	1	0.00%	0	8
Identify scholarly sources	87.50%	7	12.50%	1	0.00%	0	8
□							
Question: English 100	Agree		Too Soon to Tell Right Now		Disagree		Total
Develop and adapt information seeking strategies in order to access information effectively	88.89%	8	0.00%	0	11.11%	1	9
Evaluate information retrieved and select information sources appropriate to their particular research need	55.56%	5	33.33%	3	11.11%	1	9
Identify scholarly sources	100.00%	9	0.00%	0	0.00%	0	9
Question: English as a Second Language 118	Agree		Too Soon to Tell Right Now		Disagree		Total
Develop and adapt information seeking strategies in order to access information effectively	100.00%	6	0.00%	0	0.00%	0	6
Evaluate information retrieved and select information sources appropriate to their particular research need	100.00%	6	0.00%	0	0.00%	0	6
Identify scholarly sources	83.33%	5	16.67%	1	0.00%	0	6
Question: Life Sciences Communication 100	Agree		Too Soon to Tell Right Now		Disagree		Total
Develop and adapt information seeking strategies in order to access information effectively	100.00%	4	0.00%	0	0.00%	0	4
Evaluate information retrieved and select information sources appropriate to their particular research need	50.00%	2	25.00%	1	25.00%	1	4
Identify scholarly sources	75.00%	3	0.00%	0	25.00%	1	4

4. How did the Sift & Winnow tutorial prepare your students for the library class session? Please explain, or share other feedback you may have about the tutorial. As a reminder, here are the titles of the six steps within the tutorial. (Image of tutorial module titles placed here: *Ecosystem of Information Sources, Scholarly Communication, Information Seeking Strategies, Evaluating Search Results, Refine Search Strategies, Help from Librarians*)

(text response)

Respondent stated/implied at least one way the tutorial prepared students for the library session	12
Respondent was unsure whether the tutorial prepared students for the library session	4
Respondent stated/implied the tutorial did prepare students for the library session	1
Respondent did not address the question	3
Total	20

Results Summary of Spring 2017 Comm-A Instructor Survey and Implications for Sift & Winnow Tutorial:

Similar to last year, several instructors praised Sift & Winnow, particularly the combination (blended module) of Sift & Winnow and the in-person library session. Seventeen of 29 (59%) of instructors indicated that either Sift & Winnow or the combination of Sift & Winnow and the library class session was most helpful for students and their research needs. Twelve of 29 (41%) indicated the class session was most helpful. Twenty-five of 30 respondents (83%) indicated that the blended module of Sift & Winnow and the class session helped prepare students to meet the research criteria of their assignments (17% indicated they were unsure). Because it was difficult to gauge whether instructors completed the tutorial themselves, we decided to include a question that was specific to the tutorial content. Responses were somewhat vague, so it was still difficult to determine instructors' familiarity with the tutorial and its connection to the in-person session. Instructors specifically mentioned that Sift & Winnow enabled students to "find some keywords for their search and move from a topic to a project" and noted that the tutorial was "clear and well organized [and] was easy to incorporate into my teaching." One instructor remarked that Sift & Winnow "gave [students] the basics to take advantage of the 'live' session. We must all keep in mind, as I say to [students], 'Even if you went to the best high school in the United States, you have never had a resource even close to this.'" Due to some vague responses regarding tutorial content, we plan to work with Communication A directors to ensure instructors complete the tutorial and/or are familiar with the modules and/or learning outcomes.

Introduction - Module Quizzing

Five out of the six modules in Sift & Winnow have a direct assessment quiz. The quizzing is facilitated through Qualtrics and can be mapped to individual courses via Course ID numbers passed between the LMS and Qualtrics. The coding of Module 3, which focuses on the development of a research question/statement, helps us gauge the quality of the students' progress during the module.

Method

Each semester the Libraries pull the quiz data for all Comm-A courses, discuss findings, and adjust the curriculum as needed. 4000+ responses were gathered over this second year. Several non-Comm-A courses also utilize Sift & Winnow, which results in the surplus student response rate (e.g., Comm-B).

For Module 3, we used the same rubric as last year to score research questions/statements on the three quality indicators: *Information Landscape*, *Specificity*, and *Language*. Scores between 1 and 3 were assigned for each area and totaled. In order to ensure 95% confidence and a 7% margin of error, 165 questions were coded from Communication Arts 100, 169 from English 100, 146 from English as a Second Language 118, and 128 from Life Sciences Communication 100, for a total of 608 coded questions.

Results

Quizzes within Modules 1, 2, 4, 5 (Assessing student understanding of the following: Ecosystem of Information Sources, Scholarly Communication, Evaluating Search Results and Refining Search Strategies):

As part of the quiz design, questions were not too easy and not too difficult, and scores (of about 3600+ responses) reflected an average of about an 80% success rate, with a few exceptions.

Students clearly exhibited an understanding of the usefulness of scholarly articles, books, news/magazine articles, original research and the peer review process, but understanding of the usefulness of trade sources and government sources was quite low. Students also are struggling with assessing source citations (e.g., relevancy and keyword mining). The latter is a higher order skill that develops over an academic career and enhanced in Communication B courses. We will share results by course with Comm-A course directors.

Quiz within Module 3 (Assessing students' development of a research question):

Although many students struggled with using correct, specific language in their research questions/statements, we noted that overall, scores were significantly higher than last year. Life Sciences Communication 100 continues to exhibit higher scores in all areas, although the difference was not as pronounced as last year. As mentioned in last year's report, we suspect that LSC 100's unique introductory library session before the Comm-A module and the library session timing (later in the semester) may have some influence on these rankings. It's possible that the overall improvement in scores can be attributed to instructors assigning Sift & Winnow in conjunction with a research assignment—this would be the ideal scenario for completion of the tutorial and a point we have been emphasizing during instructor orientations.

	Info Landscape	Specificity	Language	Total
Total Avg. Score	2.33	2.22	2.23	6.78
CA 100 Avg.	2.30	2.22	2.17	6.69
ENG 100 Avg.	2.27	2.24	2.23	6.74
ESL 118 Avg.	2.30	2.11	2.15	6.56
LSC 100 Avg.	2.49	2.32	2.39	7.20

Scoring Rubric Sift & Winnow Module 3 Research Questions (adapted from UNLV)

	Exemplary-3 Points	Developing-2 Point	Beginning-1 Points
Information Landscape	The topic is able to be challenged, examined, or analyzed by a novice researcher with a variety of readily available resources (both scholarly and popular).	The topic is able to be challenged, examined, or analyzed by a novice researcher, but there are potential issues around feasibility and/or access of information resources. There may be too much or too little information available on this topic, only one kind of source that addresses this topic (i.e. only scholarly or only popular), or other issues with access.	The topic is not researchable because the topic cannot be challenged, examined, or analyzed by resources readily available to a novice researcher.
Specificity	The student defines who is affected, what aspect of the issue they will deal with, what time frame they will be researching, and where their issue is present.	The student has defined some areas of their subject. The topic is somewhat manageable for this assignment but requires further specificity/development in 2 areas (who, what, when, where).	The student does not specifically define various aspects of their subject (who, what, when, where). Extensive revision is required.
Language	Topic-related vocabulary is used to provide language context for the topic. Useful search terms can be derived from topic statement.	Topic-related vocabulary is used to provide some language context. However, it is either not well-defined or not helpful for developing search terms from topic statement	Topic-related vocabulary is not used and, therefore, language context is not established. No search terms can be derived from topic statement.

Introduction - In-Class Worksheet

After completing the Sift & Winnow online modules, students meet with a librarian for an in-class library session that builds upon information literacy concepts. The in-class session provides students the opportunity to address challenges with their initial searches, evaluate sources, and apply advanced search strategies. At the end of the in-person session students do a “one minute paper” activity where they reflect on the question: *After completing the online tutorial and today’s class, what will you do differently while researching?*

Method

Responses to the “one minute paper” activity were coded by topic themes. While not all students completed the “one minute paper” this sample of 2,900+ students across all Comm-A courses is still a very strong response rate.

Results

Similar to last year, we are pleased to see the top ranking response fits within our higher order learning outcomes for the Library Comm-A module and maps to tenets of information literacy (an Essential Learning Outcome at UW).

Full list of results:

1. Critically evaluate sources in order to identify those appropriate to meet specific research needs for a given project: 977
 - source type identification: 372
 - analyze/evaluate sources (credible/reliable/relevant): 482
 - argument/counterargument: 8
 - Publication date/currency: 69
 - look for what is missing: 26
 - bias: 20
2. Utilize databases to supplement other search methods (e.g. Google, Article tab): 1068
 - use databases as supplement: 406
 - familiar/comfort/efficient with databases: 662
3. Refine searches and apply database tools to access the most appropriate sources: 364
 - refining strategies/limits: 202
 - narrow topic: 162
4. Make use of Subject Terms and pay specific attention to word choice when constructing database searches: 753
 - Keywords/subject terms: 753
5. Actively seek additional assistance from a librarian throughout the research process: 398
 - Ask a librarian: 152
 - library website/other library resources: 246
6. Other: 308
 - not limit to full-text options/use ILL: 29
 - truncation: 8
 - save articles (permalink/email): 42
 - abstracts: 25
 - citation mining: 29
 - use non-scholarly sources for background information: 50
 - cite sources: 27
 - budget more time/energy: 30
 - everything/unspecified: 68
7. Did not respond/not useful/knew this already: 37
 - not useful: 10
 - did not respond: 14
 - knew this already: 13

Appendix B: Curriculum Materials

Sift & Winnow: Libraries@UW Access

<https://go.wisc.edu/siftwinnow>

In-Person Library Session Lesson Plan

<http://go.wisc.edu/854m85> (in Box folder, Fall 2016 update)

Course Map: Using Backward Design

Available upon request