First year students enrolled in ENGL1105 are targeted for information literacy instruction because the majority of students at UNH take the course. Students at this level are learning to access library databases to find information. They are also learning to identify various types of information (news, magazines, journals, books) and develop the knowledge to determine when it is appropriate to use various sources. A recent report from Project Information Literacy speaks about this topic in depth. It says that first year students report that “conducting research was overwhelming because they were unfamiliar with what college research entailed. Clearly, the high school experiences and the college library instruction they had, so far, did not prepare most of them for the rigors of college research”. Other interesting and applicable findings were that “A majority of freshmen in our sample said they were overwhelmed by the variety, quantity, and newness of potential sources available through their campus library”. To address these issues, the information literacy librarians at UNH have developed the following learning outcomes for the instruction given to ENGL 1105 students:

**Learning Outcomes for ENGL1105 Library Instruction**

Learning outcomes align with the ACRL Information Literacy Competency Standards for Higher Education.

As a result of the ENGL1105 information literacy instruction:

1. Students will identify the typical uses of and intended audiences for different sources of information, such as reference books, non-reference books, magazines, newspapers, and journals
   - **ACRL Standard 1.2** The information literate student determines the nature and extent of the information needed: The information literate student defines and articulates the need for information. **Outcome:** The information literate student identifies a variety of types and formats of potential sources for information.
   - **Standard 1.2** The information literate student defines and articulates the need for information: **Outcome:** Identifies the value and differences of potential resources in a variety of formats (e.g., multimedia, database, website, data set, audio/visual, book)

2. Students should be able to identify different types of information available in databases.
   - (ACRL Standard 1.2 The information literate student determines the nature and extent of the information needed: The information literate student defines and articulates the need for information. **Outcome:** The information literate student identifies a variety of types and formats of potential sources for information.)

3. Student will identify an article citation from database results.
• (ACRL Standard 2.5 The information literate student accesses needed information effectively and efficiently: The information literate student extracts, records, and manages the information and its sources. **Outcome:** The information literate student differentiates between the types of sources cited and understands the elements and correct syntax of a citation for a wide range of resources.)

4. Students should be able to locate and access several databases to find information from magazines, newspapers, and journals on a particular topic.

• (ACRL Standard 1.2 The information literate student determines the nature and extent of the information needed: The information literate student defines and articulates the need for information. **Outcome:** The information literate student identifies a variety of types and formats of potential sources for information.)

**Assessment Tool**
The assessment tool utilized was a pre and post class survey. This method is a recommended best practice according to the ARCL “Characteristics of Programs of Information Literacy that Illustrate Best Practices: A Guideline”. The document recommends that instructors “Employ a variety of pre- and post-instruction outcome measures; for example: needs assessment, pre-tests, post-tests”.

The multiple choice items on the pre and post test were modified from a previously used version of the test to have 3 choices only. Rodriguez (2005) reports that “Researchers have endorsed 3-option items for over 80 years with empirical evidence”. Students were also asked if they had previous library instruction prior to the class.

Open ended questions were also added at the end of the post test to gather some anecdotal information regarding what the students learned and what they might have liked to learn that was not presented.

370 completed sets of pre and post tests were analyzed for this report.

**Description of the Tests**
This pre and post was slightly modified from a previous version. Librarians read several articles on how to best develop multiple choice questions and used those guidelines for the development of the test. In addition, several weeks in to the Fall 2014 semester, the online tool Socrative was used to administer the pre and post class test.

The pre class survey and post class survey consisted of 5 multiple choice questions as well as a question asking if each student had ever had library research training prior to this class. In addition, 2 option questions at the end of the post test were open ended and intended to gather student opinions regarding the material that was covered.

**Pre-Class Survey Responses**
Below are the responses to the pre-test questions by total number of students who chose each possible answer (first line) and percentage of the total that chose each answer (second line). The correct response is highlighted. (Total may not add up to exactly 100% due to rounding).
1. What is the name of the link from the UNH Library website used to search for books that are physically in the library?

<table>
<thead>
<tr>
<th>Catalog-UNH Link</th>
<th>Databases Link</th>
<th>Book Finder Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>94</td>
<td>76</td>
</tr>
<tr>
<td>54%</td>
<td>24%</td>
<td>21%</td>
</tr>
</tbody>
</table>

2. What is one major difference between an academic journal and a magazine?

<table>
<thead>
<tr>
<th>An academic journal is available only in databases and a magazine is never available in databases</th>
<th>A magazine is written for the general public and an academic journal is written for scholars</th>
<th>An academic journal is a periodical and a magazine is not considered a periodical</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>265</td>
<td>64</td>
</tr>
<tr>
<td>11%</td>
<td>72%</td>
<td>17%</td>
</tr>
</tbody>
</table>

3. In the citation below, what does “Society and Animals” refer to?


<table>
<thead>
<tr>
<th>The title of the book</th>
<th>The title of the article</th>
<th>The title of the journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>26%</td>
<td>37%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Note: Many students did not even answer this question.

4. Which statement below is true?

<table>
<thead>
<tr>
<th>Google is the database that students at UNH should always use to find news, magazines, journals and other sources of information</th>
<th>There is one database at UNH that students should always use to find news, magazines, journals and other sources of information</th>
<th>There are over 100 databases at UNH used to find news, magazines, journals and other sources of information</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>41</td>
<td>320</td>
</tr>
<tr>
<td>3%</td>
<td>13%</td>
<td>86%</td>
</tr>
</tbody>
</table>

5. What link from the library website should be chosen to find the guides developed by librarians to help students learn about resources on various subjects that they need to research?

<table>
<thead>
<tr>
<th>Research Help</th>
<th>Web Site Guides</th>
<th>Guides</th>
</tr>
</thead>
<tbody>
<tr>
<td>224</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>61%</td>
<td>19%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Discussion of Pre-Test
Post-Test Responses
Below are the responses by total number and percentage to the post-test questions. If there is a correct response it is highlighted. (See Appendix B for complete test.)

1. What is the name of the link from the UNH Library website used to search for books that are physically in the library?

<table>
<thead>
<tr>
<th>Catalog-UNH Link</th>
<th>Databases Link</th>
<th>Book Finder Link</th>
</tr>
</thead>
<tbody>
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<td>320</td>
<td>39</td>
<td>11</td>
</tr>
<tr>
<td>86%</td>
<td>11%</td>
<td>3%</td>
</tr>
</tbody>
</table>

2. What is one major difference between an academic journal and a magazine?

<table>
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<tr>
<th>An academic journal is available only in databases and a magazine is never available in databases</th>
<th>A magazine is written for the general public and an academic journal is written for scholars</th>
<th>An academic journal is a periodical and a magazine is not considered a periodical</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>309</td>
<td>40</td>
</tr>
<tr>
<td>6%</td>
<td>84%</td>
<td>11%</td>
</tr>
</tbody>
</table>

3. In the citation below, what does “Society and Animals” refer to?

<table>
<thead>
<tr>
<th>The title of the book</th>
<th>The title of the article</th>
<th>The title of the journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>44</td>
<td>82</td>
</tr>
<tr>
<td>19%</td>
<td>28%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Note: Many students did not even answer this question.

4. Which statement below is true?

<table>
<thead>
<tr>
<th>Google is the database that students at UNH should always use to find news, magazines, journals and other sources of information</th>
<th>There is one database at UNH that students should always use to find news, magazines, journals and other sources of information</th>
<th>There are over 100 databases at UNH used to find news, magazines, journals and other sources of information</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>345</td>
</tr>
<tr>
<td>0%</td>
<td>7%</td>
<td>93%</td>
</tr>
</tbody>
</table>

5. What link from the library website should be chosen to find the guides developed by librarians to help students learn about resources on various subjects that they need to research?

<table>
<thead>
<tr>
<th>Research Help</th>
<th>Web Site Guides</th>
<th>Guides</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>74</td>
<td>216</td>
</tr>
<tr>
<td>22%</td>
<td>20%</td>
<td>58%</td>
</tr>
</tbody>
</table>
Discussion of Results

One of the questions that we asked students, starting in Fall 2014, was if they had previous library instruction prior to this class. 67% of students polled indicated that they did have some library instruction prior to this class. However, some information that might be considered quite basic for students who have already received some type of instruction still eluded many students. For example, 54% of students did not know that books in a library were found using a “catalog”. This is one reason that we cannot assume that students only need information literacy instruction once. Very few concepts can be learned by sitting one time in a one hour class.

Coming in to instruction, 72% of students were aware of a simple difference between a magazine and journal and this did increase to 84% by the end of instruction. Students were also very aware of the number of databases offered.

2 concepts were especially challenging for students. When asked to identify the part of a bibliographic citation, even after instruction, only 53% of students could do so. Many students actually did not answer this question at all on the pre test or post test. In addition, after instruction, only 58% of students could identify where to locate the LibGuides on the library homepage. Librarians should devote more time, when possible, to these important concepts and have exercises to reinforce the concepts.

<table>
<thead>
<tr>
<th>Question</th>
<th>Link to find books</th>
<th>Journal vs magazine</th>
<th>Part of a citation</th>
<th>Number of databases</th>
<th>Guides link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Improvement</td>
<td>60%</td>
<td>17%</td>
<td>43%</td>
<td>8%</td>
<td>190%</td>
</tr>
</tbody>
</table>

What are student expectations coming in to the class? An open ended question at the end of the post test asked students if anything they learned surprised them. Student responses were compiled and categorized below:

- How many sources/databases are available at this school 107
- Nothing/not much/not surprised/knew it all already 26
- Google doesn't have everything or may not be the most reliable 11
- Methods of searching/search strategies 11
- Citation link in databases 8
- Subject specific databases are available 5
- Database for historical newspapers 5
Databases are easy to use
How to search in catalog & then find books on the shelves
What a scholarly/peer reviewed article/journal is
LibGuides
CQ Researcher
CRedO mind map
How to identify individual resources in database results
Ways to get help
Some databases same as I used in high school
Iconn
These sources are accepted by all professors
How to find reliable information
There are E-Books from the library
NFPA code
Information on my specific topic
Learned more than I knew already
How to navigate the library website
our library is very techno savy
All this is free

What do the students want to know? One open ended optional question at the end of the post test asked students what they wanted to know that was no covered in the session. This can give librarians an idea of what might be covered in sessions going forward, or more likely, in a LibGuide specifically geared to ENGL 1105. Student responses were compiled and categorized below:

78 – “Nothing” or “Everything was covered” or N/a
16-- More information on how to physically locate books
7 - More on citation
6 - Developing a topic or thesis
6 - More on database search techniques (keywords, narrowing a search)
3 - Information on their specific topic
2 - more on Citation
2 - Searching websites and Google
1 - How to write a research paper
1- Hours for librarians
1 - Database for a specific major
1 - How e-books are helpful to research
1 - How to get to the library page
1 - CLR
References


Pre and Post Test

The link from the UNH library website used to search for books that are physically in the library is the:
- Catalog - UNH Link
- Databases Link
- General Information Link

A reference book:
- Is meant to be used by instructors not students
- Should be read cover to cover for maximum understanding
- Is usually for looking up a quick fact or definition

One major difference between an academic journal and a magazine is:
- An academic journal is a periodical and a magazine is not considered a periodical
- A magazine is written for the general public and an academic journal is written for scholars
- An academic journal is available only in databases and a magazine is never available in databases

Circle the statement below which is true:
- An article citation gives information that identifies the article
- An article citation tells where in the library to find the article

Circle the statement below which is true:
- There is one database at UNH used to find news, magazines, journals and other sources of information
- There are over 100 databases at UNH used to find news, magazines, journals and other sources of information