WML Information Literacy Instruction Assessment 2017-18
Classroom Activity Report

Faculty Librarian: Donna Witek

Semester: Fall 2017

Course Number and Name: BIOL 375: Evolution

Course Instructor (Last Name): Royer

Date(s) of Guest Information Literacy Instruction: 9/5/2017

Time(s) of Guest Information Literacy Instruction: 2:30-3:45pm

Location: WML 306

Number of Students Registered in Course: 18

Summary of research assignment or task

Students in this course are assigned to research and write a term paper on some aspect of evolutionary biology. Timeline for the assignment includes: first, they identify a topic along with 3 articles from the primary scientific literature on the topic; second, they do in-depth research in the scientific literature on the topic in order to identify at least 15 references and format them according to the disciplinary citation style included on the assignment instructions; third, they produce an outline of the paper that utilizes the sources found; and, fourth, they write and submit the paper, making sure that it includes at least 15 references from the scientific literature that are properly formatted according to disciplinary standards.

When this information literacy instruction took place, students did not yet have their topics selected; one week later the topic + 3 citations were due, and three weeks later the reference list of 15 citations was due.

The course instructor shared with me in advance her priorities for the information literacy class session, which were that students be comfortable:

1) Searching a recent issue of a specific journal in the field of evolutionary biology (e.g., *Evolution*);

2) Searching for a topic using a research database containing journal articles in the field of evolutionary biology;

3) Citation chasing in both directions from a starting paper (i.e., articles cited in this paper, and articles that cite this paper);

4) Accessing articles full-text / using interlibrary loan to request articles we do not have full-text.

Student learning outcomes for the guest information literacy instruction (at least one, no more than three)

As a result of this guest information literacy instruction and the assignment that follows, students will:

1) Explore topics related to evolution using tools that include Browse Periodicals by Subject, Google Scholar, BioOne.org, Wiley-Blackwell Journals (FrontFile content), and ProQuest Biology.

2) Practice chasing a citation in both directions—Literature Cited and Cited By/Citing Literature.

3) Register for ILLiad and know when and how to use it.

How will you know how students are doing as they work toward meeting these outcomes?

Classroom SLO 1): Evidence found in successful completion of first checkpoint in term paper, due one week after guest information literacy instruction (topic + 3 citations)

Classroom SLO 2): Successful execution of Chasing Citations classroom exercise

Classroom SLO 3): Successful ILLiad registration and observation of attentiveness during demonstration of its use; follow-up help at the Research Services desk

Based on your experience teaching this session and any assessment of student work you were able to do, what can you change next time to improve how you teach it? Or, what was successful that you want to be sure to do again the next time you teach it?

Assessment data including student scores and feedback were sent to me by the course instructor.

Assessment data for classroom SLO 1) consisted of the following:

Student Scores

Students could earn up to 20 points toward the **first assignment checkpoint** in which they were assigned to submit their topic + 3 citations.

Number of students to complete this checkpoint assignment = 18

Mean score (points)………18.75 / 20 points   Median score (points)……..19.25 / 20 points
Mean score (percentage)….93.75%   Median score (percentage)...96.25%

The highest score earned was 20 points / 100% (n=7 students) and the lowest score earned was 16 points / 80% (n=1 student).

From this data it is clear that all students demonstrated success at accomplishing my first classroom SLO, i.e., to explore topics related to evolution using tools that include Browse Periodicals by Subject, Google Scholar, BioOne.org, Wiley-Blackwell Journals (FrontFile content), and ProQuest Biology; students would not have succeeded at articulating a topic + 3 citations to submit to their course instructor if they had not accomplished this outcome.

Assessment data for classroom SLO 2) consisted of the following:

Student Feedback

The course instructor asked students five questions after the information literacy class session took place, and asked them to answer the questions on index cards which the instructor collected and shared with me after the semester ended. The questions she asked students were:

- Was [the information literacy class session with a librarian] helpful?
- What did you find most useful?
- Have you ever written papers at the U using primary lit before?
- Was it a good use of an entire class period?
- Anything you would have changed?

In response to the second question, **5 students out of 13 who submitted feedback responded** that the technique of chasing citations was **the most useful thing they learned** during the information literacy class session, which indicates the instruction in this technique was effective for a significant portion of the class.

Student Scores

Students could earn up to 25 points on the **second assignment checkpoint** in which they were assigned to identify at least 15 references and format them according to disciplinary standards.

Number of students to completed this checkpoint assignment = 18

Mean score (points)………22.89 / 25 points   Median score (points)……..23.25 / 25 points
Mean score (percentage)….91.56%   Median score (percentage)...91%

The highest score earned was 25 points / 100% (n=3 students) and the lowest score earned was 19 points / 76% (n=1 student).

From this data it is clear that the majority of students demonstrated success at accomplishing my second classroom SLO, i.e., chasing citations in both directions—Literature Cited and Cited

By/Citing Literature, because without chasing citations in both directions students would be unable to find the appropriate breadth and depth of literature to score well on this assignment checkpoint.

Assessment data for classroom SLO 3) consisted of the following:

Based on my observation during instruction, all students present for the information literacy class session successfully signed up for the interlibrary loan requesting service, ILLiad.

Student Feedback

In response to the second question—i.e., What did you find most useful [about the information literacy class session with a librarian]?—**2 students out of 13 who submitted feedback responded** that using interlibrary loan was **the most useful thing they learned** during the information literacy class session, which indicates the instruction in this technique was effective for some of the students.

Other relevant assessment data:

Course Instructor Feedback

Dr. Royer and I met at the end of the semester, after students had submitted their research papers and she had graded/assessed them. At this meeting she shared the index cards with student feedback about the information literacy class session, as well as her own positive feedback about the impact my instruction had on her students' demonstrated technique and use of research in the various assignment checkpoints leading up to the final paper submission.

Incidentally, two of her students in this course submitted applications consisting of their final research papers for the Bonnie W. Oldham Library Research Prize, and one received an honorable mention in the category they entered in.

Student Scores

Dr. Royer also shared student scores for the **final assignment checkpoint** of the research paper sequence; students could earn up to 80 points for this assignment checkpoint consisting of the completed research paper.

Number of students to completed this checkpoint assignment = 18

Mean score (points)………70.83 / 80 points   Median score (points)……..71.75 / 80 points
Mean score (percentage)….88.54%   Median score (percentage)...89.69%

The highest score earned was 79 points / 98.75% (n=1 student) and the lowest score earned was 59 points / 73.75% (n=1 student).

This spread of scores mirrors closely the scores reported at the other assignment checkpoints leading up to this final paper submission, which indicates that the preparation students received through information literacy instruction earlier in the research process had the logical outcome of students performing well / expected on the research paper as a whole.

Student Feedback

In response to the first question—i.e., Was [the information literacy class session with a librarian] helpful?—**11 students out of 13 who submitted feedback responded** that the information literacy class session **was helpful**.

In response to the fourth question—i.e., Was [the information literacy class session with a librarian] a good use of a class period?—**12 students out of 13 who submitted feedback responded** that the information literacy class session **was a good use of a class period**.

In response to the last question—i.e., Anything you would have changed?—student responses included:
- **2 students** indicated that they did not find the in-class citation chasing exercise a good use of time
- **3 students** indicated they wished there was more time to work with the techniques and resources taught
- **1 student** indicated that they did not find the instruction session useful as a senior

CLOSING THE LOOP — Planned changes for next time this class is taught:

Although two students shared that they did not find the citation chasing exercise useful, and one student did not find the instruction session useful at all, the majority of student feedback as well as student assessment scores provide evidence that retaining this information literacy instruction lesson largely "as is" would be a good approach to teaching this class again.

I am no longer the subject liaison to the Biology department, so I will plan to share my instructional materials as well as this assessment report with the new librarian who will be teaching information literacy in Biology courses, including BIOL 375: Evolution, in the future.

WML Information Literacy Program Student Learning Outcomes this information literacy instruction supports

SLO1: Students will investigate differing viewpoints that they encounter in their strategic exploration of topics in order to be able to develop their own informed arguments or hypotheses.

SLO4: Students will articulate the key elements in their research questions in order to develop and execute a search strategy.

SLO6: Students will properly distinguish between their own ideas and the intellectual property of others in order to ethically use information and demonstrate academic integrity.