Critical Information Literacy Teaching Award
Final Report

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CIL Student Learning Outcomes

- Students create and use <u>effective search strategies</u> to engage in inquiry-based research processes.

- Students distinguish between <u>popular and scholarly sources</u> to select the sources that are appropriate for their information needs.

CIL Assignments

- Students read a journal article in which its keywords have been removed and create keywords for it. Then, look at the original keywords provided by the author. Compare the keywords selected by students and those selected by the author. Discuss the similarity and difference. (See Assignment 2 for more details)

- Students watch the CIL related videos, conduct literature review on the research topic they selected, cite two articles that are most relevant to their topic, and write down all the keywords they used in web/database search engine to find the articles. Discuss how the library's resources helped them find articles. (See Assignment 3 for more details)

Lab Materials Used

Videos: (1) Starting your search in the right place; (2) Popular and scholarly sources; (3) Using Library's OneSearch; (4) Choosing and using a keywords; (5) Intermediate database searching; (6) Advanced database searching.

Assessment Strategy

Before students learn the CIL skills through Assignment 2 and 3, they were asked to devise a research topic, find and read articles on their topic, write down the keywords they used, and cite two articles that were most relevant to their topic. (See Assignment 1 for more details).

The keywords and articles that students provide in Assignment 1 (before learning the CIL techniques) are then compared with those provided in Assignment 3 (after learning the CIL techniques) to see if there is any improvement in the keywords and the quality of the articles that students have selected. The quality of keywords and articles are assessed on a scale of 1 (poor) to 5 (excellent). In addition, students' feedback on the utility of the CIL videos and library's database or OneSearch are assessed.

CIL Assessment Results

The mean article score and keywords score in Assignment 1 are 2.57 ±0.52* and 2.62 ±0.31*, respectively. After students completed the CIL assignments, the mean article score increased to 3.87 ±0.45* while the mean keywords score increased to 3.33 ±0.38*.

The chart below clearly shows that the average score for keywords and articles that student selected has significantly improved after they completed the CIL assignments.

*95% confidence interval (n=27)

Chart: The Mean Scores with 95% CI
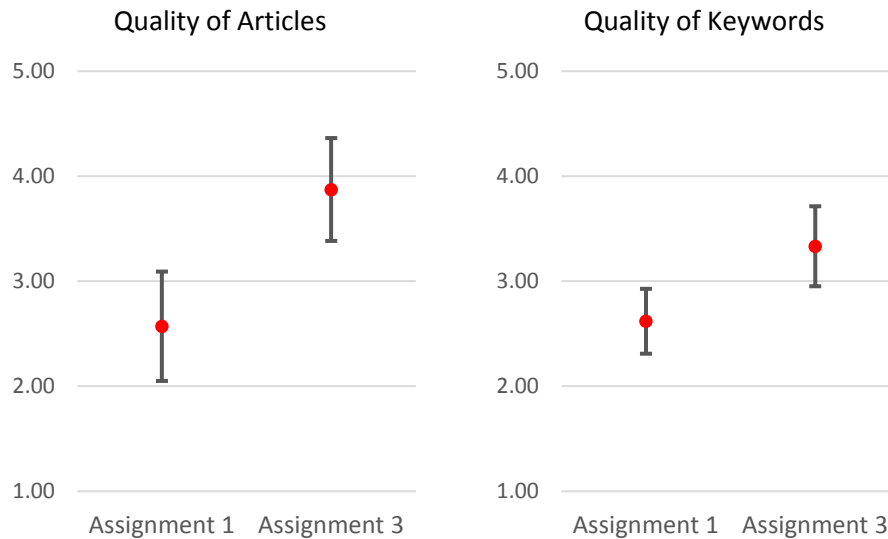
In specific, 20 out of 27 students cited a popular source (e.g., blog posts, news, magazine articles) as their main source in Assignment 1, while only 3 students used a popular source in Assignment 3. As for the keywords used to find research articles, most of the students' keywords used in Assignment 1 were either too broad or too specific. Some students used only one word to find articles, while a few students entered a complete sentence as keywords in search engine. In Assignment 3, although 5 students used the same keywords as those used in the previous assignment, the majority of the students changed their keywords, some used a phrase searching or Boolean operators, and some used a combination of both techniques that was not observed in Assignment 1.

The majority of the students' comments regarding the usefulness of the CIL materials/ assignments are positive. The following are examples of comments (exact quotes) from the students who have completed the CIL assignments.

Positive Comments

- I found all of the videos you provided very helpful for this assignment… The most information I gained from those videos was the use of effective keywords and database searching techniques. I had no idea that there were certain "wild cards" that can be used when researching.

- Looking for articles in the library's resources was very easy after looking at the videos. I didn't know about the techniques in how you can put and, or and as well * to getting more information about your topic.

- This isn't the first time I used the library's OneSearch but I never knew of all the ways one can refine the search to find the best resources.

- During the previous assignment, it took me a lot longer to find scholarly articles using internet search engines. The library website was much faster and more user-friendly.

- I never really used One Search until today for this assignment, and it really was a big help because searching online I get thousands of irrelevant websites.

- The "popular and scholarly articles" video helped me realize what type of articles I wanted to search for and what type of articles would fit with my research better.

- The efficiency, reliability, and simplicity of Onesearch is a very handy tool when conducting research.

- Google search wouldn't have helped much because I would have had to look for scholar articles through a lot of websites.

- What I liked about it was that I was able to specifically narrow it down to only peer edited articles, pushing aside all the popular sources that may come up.

- I have found articles more relevant to my topic and the articles seem much easier to understand from OneSearch and I believe it's a great search engine for research projects.

- When someone uses Google, a lot of unreliable sources pop up. I feel like for every one reliable source, a hundred unreliable pop up.

- Regular search engines provide numerous information, however, most of it tends to be irrelevant to my research topic.

- The library's resources videos helped me come up with more specific keywords. When I used my old keywords, articles I had previously viewed showed up. By using synonyms, I received numerous interesting articles that I hadn't seen before.

- Learning about better ways to search for information is definitely a key for future searches. For example, searching on the library database instead of searching on popular search engines gives us much more narrowed searches. It also allows us to choose sources that are credible and more refined.

Neutral/Negative Comments

- The videos did help me narrow down my information search, however I did not really need to use the Boolean Operator. The Boolean Operator helps narrow down the search even more by using AND, OR, NOT but in this case I did not really need to use these much.

- I speak down upon library's search engines with the solemn idea that the "scholarly" articles are just another person's perception as to what the author favors. For example, with the OneSearch I found more critically opinionated papers written than the basic search engine I typically use (Google, YouTube, etc.). As most persons have come to find, OneSearch has more credibility with professors and teaching staff. Whereas a newer generation would utilize the internet to obtain first-hand knowledge directly from those effected. As I researched body-worn cameras I found many "keyboard warriors" on google, on OneSearch I found educated based "keyboard warriors" writing about a gathering of other person's studies, on YouTube I was able to reach a more direct gathering of information as interviews with sworn officers and department spokespersons about the topic I am writing on.

My Reactions to CIL Activities

First, I was surprised that three-fourths of the students considered a blog post or a magazine article to be the most relevant or key article in their literature review in Assignment 1. However, the use of keywords and relevancy of the articles to research questions significantly improved after students learned how to use effective search strategies to locate scholarly sources. The majority of the students gave positive feedbacks to the CIL assignments. From the students' comments and Assignment 3, it was evident that the library's CIL related videos were effective at improving their ability to create keywords and differentiate popular and scholarly articles.

On the other hand, although I saw improvement in the use of keywords, only one-third of the students utilized advanced searching techniques, such as wild cards, phrase searching, and Boolean operators, which come in handy when searching a database. To address this issue, I may need to modify Assignment 2 to incorporate different types of searching techniques. In addition, it appears from student's feedback that some students had trouble understanding what a peer-reviewed journal is. Therefore, the process of peer review should be explained in detail when discussing the difference between popular and scholarly sources.

Overall, the collection of CIL related videos and articles available in the library's webpage is extensive enough and well suited for the purpose of the course assignments.

Evaluation of the Award Activity

The grant activity met my expectations. The meetings are well structured and a great place to gain a better understanding of CIL and different ways to integrate CIL into a variety of classes. The handouts and materials available in the CIL webpage have contributed to my understanding of CIL. I was very fortunate to have the opportunity to attend the CIL workshops and learn about CIL. I will definitely continue integrating CIL activity into my class.

Your agreement to post your assignment in the CIL Lab

Yes, certainly.

Developing a Research Question

One of the most important parts of the research process is developing a research question. The research question determines the research design and methodology that will be used in the study. That is, the remaining steps in the research process are completed to answer the research question. The purpose of this assignment is to guide you through the process of developing a sound research question.

Instructions

1. Be sure to read Chapter 1 of the textbook.

2. Devise a research topic related to criminal justice that you are interested in studying. Be sure to choose a topic that really interests you. State your topic clearly and specifically in one sentence. Your topic should not be too broad or too narrow.

3. Watch a short video: Choosing a Manageable Research Topic [3:42] This video will help you develop a good research topic and research question.

4. Using any Search Engines (Google, Bing, Yahoo, library…etc.), find and read through as many articles on your topic as you can in order to find out what is known about your topic and what others have said about your topic.

5. Select **TWO** articles which are most relevant to your topic, and cite the articles in APA style.

6. Write down all the keywords/phrases that you used in the search engine to find the articles.

7. Drawing on the literature on your topic, develop one or more research questions. The aforementioned library's video shows a good example of research questions.

8. Identify whether your research question is exploratory, descriptive, or explanatory.

9. Write down and organize your responses in a Word document. Save the document as PDF or Word file (.doc or .docx)

10. Submit your work via Dropbox: Homework1 in Blackboard before the due date. The drobox is located in the "Week 1" folder.

Selecting Keywords

As the volume of information digitally available increases, finding relevant studies or research papers is becoming challenging. To facilitate database searches, most journals require authors to provide a list of several keywords (or phrases) for their papers. Keywords are a tool to help search engines and readers find relevant articles. The purpose of this assignment is to show you the role of keywords in article searches.

Instructions

1. Read the article, "*Texting While Driving: An Empirical Investigation of Students' Attitudes and Behaviors*" You can find the article in the "This week's Items" section.
    - □ This article will also help you do Assignment 5.

2. Create 5 keywords for the article.
    - □ A keyword can be made of one or more words (e.g., "texting while driving" is a keyword on its own)
    - □ Keywords should accurately reflect the content of the article and appear in the main text at least a couple of times.
    - □ Keywords are supposed to supplement the information given in the title. Because the title of an article is already searchable, keywords should not include words or exact terms that are used in the title.

3. Post your 5 keywords onto the discussion forum, "Assignment 2: Your Keywords" **by the end of Wednesday, Oct. 4**.
    - □ Click the link in Blackboard and click "Create Thread" to post your keywords.
    - □ You do not need to give feedback to your classmates' posts in this assignment.

After I present the original keywords that were selected by the authors, compare your keywords with the authors' keywords. Discuss how your keywords are similar to or different from the original keywords. Why do you think this is? (Why is there such difference?) Submit your assignment **by the end of Saturday, Oct. 7**.

Refining your Research Question

As mentioned in the first assignment, one of the most important parts of the research process is developing a sound research question. Doing research without a good research questions is like building a house on quicksand. The purpose of this assignment is for you to revisit your research question after gaining a deeper understanding of your topic.

In this assignment, you will (1) learn the difference between popular and scholarly sources and (2) learn techniques to create effective keywords that you can use in the library's database (or in other search engines, like Google Scholar) in order to find articles or book chapters from the academic literature. By reading more scholarly articles that are relevant to your topic, you may find an existing research question which is similar to yours and/or find out what has already been studied in the area of your interest. This will help you refine your research question.

Instructions

1. Watch the following short videos presented by the Pfau library (about 20 minutes in total). These videos are extremely helpful when conducting a literature review. Closed Captioning is available on all of the videos.

    *Please **click on the link** below. If the link doesn't, you can find the videos in Blackboard.

    Starting your search in the right place [3:32]
    Understand different ways to find information on your research topic.

    Popular and scholarly sources [3:56]
    Understand the difference between popular and scholarly sources.

    Using Library's OneSearch [4:21]
    Learn how to use the library's, "OneSearch" to locate scholarly sources.

    Choosing and using a keywords [2:41]
    Learn how to develop keywords that you can use in the library's database to find a scholarly source you need.

    Intermediate database searching [3:12]
    Learn how to use truncation and phrase searching.

    Advanced database searching [2:14]
    Learn how to use the Boolean operators to broaden or narrow database searches.

2. After you have watched all the videos, conduct a literature review on your again, keeping in mind that you are encouraged to read scholarly articles for your empirical research project.

3. Select **TWO** articles which are most relevant to your topic. You may use the article(s) that you have previously selected if you believe that they are relevant to your topic. Cite the articles in **APA** style.

4. Write down all the keywords/phrases that you used in the search engine to find the articles you selected.

5. Refine your research question(s). If you want to review an example of research questions, watch the library's video (choosing a manageable research question) again.

6. Write one or two paragraphs about how the library's resources (videos) helped you finding articles on your topic? Be sure to elaborate the use of the library's database (OneSearch) in comparison with popular search engines, the use of effective keywords, and database searching techniques.

7. Organize your response in a Word document. Save the document as PDF or Word file.

8. Submit your work via Dropbox: Homework3 in Blackboard before the due date.

Grading Criteria for Assignment 1 and 3

	Proficient (5 points)	Apprentice (4 points)	Novice (3 points)	Inactive (1 point)
Topic	The topic is focused and narrow enough.	The topic is too narrow.	The topic is too broad.	The topic is too broad, with only one word.
Article	Both articles are appropriate to the scope of the research question. Both articles are from scholarly, peer-reviewed journals or like.	Articles are relevant but too broad or too narrow to address the research question. They are from scholarly journals or like.	Articles lack relevance to the research question. One of them are not from the academic/scholarly literature.	Articles lack relevance to the research question. Both of them are not academic/ scholarly literature.
Citation	Correct citation style is used.	Citation has a minor error.	Citation has a few errors.	Citation style is not correct at all.
Keyword	Keywords are relevant to the topic. Two or more searching techniques (truncation, phrase, operators) have been used.	Keywords are relevant, at least one of the searching techniques has been used.	Keywords are too broad, none of the search techniques have been used.	Keywords are too broad, or only one keyword used. No improvement in the use of keywords
Research question	Question is well developed and researchable with available resources. Question type is correctly stated.	Question is related to the topic, but is too broad or too narrow. Question type is correctly stated.	Question is not related to the topic; question type is correct.	Question is not related to the topic, not stated in a question format. Question type is not correct.
Discussion	Well written and organized. All the searching techniques shown in videos are thoroughly discussed.	Well written, but not all the searching techniques are discussed.	Limited length, not all the searching techniques are discussed.	Limited length, none of the searching techniques are discussed.