

# The Impact of Library Instruction on Student Success

A YCCC Library Assessment Project, Spring 2018

## Our Project

In Spring 2018, the YCCC Library conducted an assessment project on the impact of library instruction on student success.

## Library instruction at YCCC

A typical library instruction class at YCCC demonstrates the use of various library search tools, as well as Noodlebib, the online bibliography creator. Classes are offered in all subject areas and take from 45 minutes to an hour. Our primary goal in all of our library instruction classes is to encourage students *to start their research at the Library website where they can get quick access to high-quality sources that come with properly formatted citations for their bibliography.*

## Defining “student success”

For this project, we defined “student success” as a measure of the quality of student research projects, with a specific focus on **source selection** and **citation style**.

## The data

For our data, we collaborated with faculty in the departments of Science, Psychology, and Veterinary Technology. We collected research projects from four courses that had received different levels of library instruction.

Class	Level of instruction	# of projects scored
Upper level Biology	No instruction from librarians, but guidance provided by faculty	16
Upper level Psychology	Instruction provided in required lower level class	22
Introductory level Veterinary Technology	One library instruction class	15
Introductory level Psychology	One library instruction class, plus required appointment with librarian	15

## The rubric

Three librarians analyzed the projects, using a rubric that scored on source selection and citation style.

**RUBRIC: SELECTION, USE, AND CITATION OF SOURCES**      Project code: \_\_\_\_\_ Initials: \_\_\_\_\_

CATEGORY	UNSATISFACTORY (0)	SATISFACTORY (1)	GOOD (2)
Selection of relevant sources	Few sources are relevant to the topic. <b>Less than half.</b>	Most sources are relevant to the topic. <b>More than half.</b>	All sources are relevant to the topic. <b>All.</b>
Variety of source types (e.g., books, journal or magazine articles, etc.), when appropriate	All from one type of source	Mix of a few types of sources	Mix of several types of sources
Sources conform to the requirements of the assignment	Few to none of the sources conform to the requirements of the assignment. <b>Less than half.</b>	Most of the sources conform to the requirements of the assignment. <b>More than half.</b>	All of the sources conform to the requirements of the assignment. <b>All.</b>
Quality of the sources	Few sources considered scholarly and timely.	Most of the sources considered scholarly and timely.	All of the sources considered scholarly and timely.
Citing/documenting materials in text	Many errors (did not cite accurately or neglected to cite source). <b>5+ errors</b>	Most are correct; a few minor errors. <b>1-4 errors</b>	All entries conform to required style with no punctuation errors. <b>No errors</b>
The bibliography (References list or Works Cited list, as appropriate) is correctly formatted (titled, alphabetized, hanging indent, punctuation, with all required elements)	Many errors <b>Less than half are correct</b>	Most entries conform to style; a few minor errors <b>More than half are correct</b>	All entries conform to style with no punctuation errors <b>No errors</b>
Are all sources cited in text listed on Works Cited page or References list? (or vice versa)	Incomplete source list		Complete source list
Evidence of plagiarism or unacknowledged sources	Throughout paper	Minor clerical errors	None
<b>Total score:</b>			

\*Developed by Beth Mark and Lawrie Merz, Messiah College, Grantham, PA 1999; modified with permission, King's College 2001

We also identified whether or not the student had used the Library website for their research.

## Summary of the results

The data shows that a large percentage of students who had no instruction did not use the Library website, even when they had had library instruction in previous semesters.

And although the students did quite well in their selection of sources, they scored very low on their bibliographies.

	Source score	Citation style score	Successful bibliographies	Overall average	% used library?
<b>No instruction</b>	94%	77%	31%	67%	0%
<b>No recent instruction</b>	78%	62%	23%	54%	6%
<b>One-shot</b>	83%	55%	60%	66%	60%
<b>One-shot, plus reference interview</b>	86%	86%	93%	88%	87%

It is important to note that the class that received no instruction, but scored so well on source selection, had very clear guidelines for their assignment: they were to find a scholarly journal article and a newspaper article for comparison. This restriction on type of source and limitation on number of sources had a positive effect on their successful completion of the assignment, but they still struggled with their bibliographies.

A comparison of the numbers from the upper and lower level Psychology classes show that students are not retaining knowledge about citation style from semester to semester and that a refresher would be beneficial.

	Source score	Citation style score	Successful bibliographies	Overall average	% used library?
No instruction	94%	77%	31%	67%	0%
No recent instruction	78%	62%	23%	54%	6%
One-shot	83%	55%	60%	66%	60%
One-shot, plus reference interview	86%	86%	93%	88%	87%

Now let's look at the classes that had library instruction:

	Source score	Citation style score	Successful bibliographies	Overall average	% used library?
No instruction	94%	77%	31%	67%	0%
No recent instruction	78%	62%	23%	54%	6%
One-shot	83%	55%	60%	66%	60%
One-shot, plus reference interview	86%	86%	93%	88%	87%

A much higher percentage of these students used the Library website.

These students also did very well in their selection of sources, but the bibliography scores in these two classes are significantly higher – even in the Veterinary Technology class that scored the lowest in overall citation style.

A closer look at the bibliography scores reveal the common errors.

	No instruction	Instruction
<b>Successful bibliographies</b>		
Correct citation style (minor errors)	10	23
Correct citation style (major errors)	4	4
<b>Total successful</b>	<b>14</b>	<b>27</b>
<b>Unsuccessful bibliographies</b>		
Incorrect citation style	1	0
Hybrid citation style	23	3
Wrong title	9	1
Wrong order of elements	1	2
Incorrect capitalization	23	3
Incorrect punctuation	2	0
Incorrect formatting	16	2
Not alphabetical	2	5
<b>Total unsuccessful</b>	<b>24</b>	<b>3</b>
<b>% of successful bibs</b>	<b>37%</b>	<b>90%</b>

Only 37% of the students who had no instruction created “successful” bibliographies, as compared to 90% of the students who had instruction.

The unsuccessful bibliographies all shared errors that could have been avoided by using the properly formatted citations provided through the Library’s research tools and by using Noodlebib.

Let’s take another look at our summary results:

	Source score	Citation style score	Successful bibliographies	Overall average	% used library?
<b>No instruction</b>	94%	77%	31%	67%	0%
<b>No recent instruction</b>	78%	62%	23%	54%	6%
<b>One-shot</b>	83%	55%	60%	66%	60%
<b>One-shot, plus reference interview</b>	86%	86%	93%	88%	87%

The lower level Psychology class that had a library instruction class, as well as a required reference interview with a librarian, provides our “gold standard” for the Library’s impact on student success, with very high scores across all categories.

The required interview seems to be a factor in the overall higher scores. In the interviews, the student worked with a librarian to find appropriate sources for their project, as well as setting up their personal Noodlebib account, if necessary. We believe that this one-on-one time with the librarian helped to reinforce the skills students learned in class. It was an opportunity for students try out their new skills, hands-on, with a “guide on the side”. Other research has shown that students retain new knowledge and skills that are relevant to them (Lockhart, 2017), in this case, working with their own specific topic, instead of the general research topic demonstrated in a lecture-style class.

## Conclusion

Students who received library instruction were more likely to use the Library website and this had a direct impact on the quality of their citations and their bibliographies, because the Library website provides access to properly formatted citations through its search tools and gives students access to Noodlebib for properly formatted bibliographies.

## Closing the loop

- We will communicate our findings with faculty and encourage them to offer library instruction in introductory classes and refresher instruction in upper level classes.
- We will increase faculty awareness of our video tutorials, assessments, and other learning materials on research and citation style that can supplement any instruction in their courses.
- We will invite faculty to require a reference interview with a librarian as a part of their research process to reinforce new skills and knowledge learned in library instruction classes.
- The Library will create additional learning materials, to support instruction, learning, and retention of new skills and knowledge.
- The Library will offer more drop-in, hands-on workshops on citation style.

## References

Lockhart, Janine. (2017). "Moving Information Literacy Further by Looking at Retention, Skills Transfer and Assessment." Proceedings of the IATUL Conferences. Paper 2.  
<https://docs.lib.purdue.edu/iatul/2017/infolit/2>