



# Student Self-Reports on their Library Research Comfort Levels: Using the Data to Improve Library Instruction

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**Purpose:** When talking to students about library research and learning information literacy skills they report they are overwhelmed and they do not feel comfortable doing academic research. So, I asked them **informally** how they felt when doing research? Could you describe what doing library research was like for you? This triggered an **Action Research project** on 1st year student library research anxiety.

**Methods:** Asking verbal questions while helping students do research or during research consultations. Keeping a log about what students said and then coded the comments.



### Findings:

- The photos above are a sampling of some of the student comments into a translation of the library research experiences into visual metaphors
- Concluded that students were feeling enough anxiety to warrant more formal data collection and a survey

## Stage 1: Identify a Problem & Collect Anecdotal Evidence

**Methods:** Adjusted the pilot survey to include a question on comfort level with citations\* and reran the survey across 2 semesters in a variety of different classes including writing one-shots, 3-session study skill courses, and Honors writing classes. (See *handout for more information on open-ended question themes and application of the themes for curriculum re-design*)

	Writing One-Shot		College Success 3-Shot classes		Honors One-shot		Question Total Means	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1. General comfort level with research and using library resources	2.95	4.00	3.15	3.34	3.07	4.00	3.06	3.78
2. Understanding the information seeking and research process	3.34	4.08	3.00	3.60	3.37	4.11	3.24	3.93
3. Comfort level with web-based research (ex Google & websites)	4.13	4.52	4.26	4.23	4.27	4.53	4.22	4.43
4. Using the Usearch library catalog	2.58	3.90	2.28	3.34	3.03	3.95	2.63	3.73
5. Comfort level using keywords	3.68	4.26	3.53	3.83	3.72	4.23	3.64	4.11
6. Knowing how to find a book in the library stacks	2.63	3.05	2.09	3.00	2.96	3.45	2.56	3.17
7. Knowing where to get help with research	3.06	3.93	2.72	3.69	3.21	4.11	3.00	3.91
8. Know what a citation is and using citations*	3.97	4.60	3.43	3.89	4.06	4.27	3.82	4.25
<b>Overall group pre- and post-survey means</b>	<b>3.29</b>	<b>4.04</b>	<b>3.06</b>	<b>3.62</b>	<b>3.46</b>	<b>4.08</b>		

Table: Survey Responses (n = 834) where (1 = not comfortable; 5 = very comfortable; red means are the lowest scores and blue scores are the highest scores)



Pre-Survey Open-Ended Question Word Cloud



Post-Survey Open-Ended Question Word Cloud

## Stage 2: Design & Implement a Pilot Study (n = 55)

**Methods:** Designed an **Action Research project** including an instrument to uncover student comfort levels with doing library research. Data was collected in 3 sections of the same course for one semester, as a pilot, taught by the same librarian to uncover how comfortable students were in completing tasks and using tools to conduct research

- Designed a short survey (*see handout for survey instrument*):
  - Seven Likert-scale questions based on topics and concerns students talked about in the Stage 1 anecdotal data collection part of the study
  - Two open-ended questions about their expectations and interests for library instruction
- As an embedded-librarian (teaching five library research classes each semester), the pre-and-post surveys were implemented for one semester in a 1<sup>st</sup> year learning community writing course

Question	Pre	Post
1. General comfort level with research and using library resources	2.97	3.19
2. Understanding the information seeking and research process	3.28	3.62
3. Comfort level with web-based research (ex Google & websites)	4.07	4.31
4. Using the Usearch library catalog	2.10	3.31
5. Comfort level using keywords	3.59	4.08
6. Knowing how to find a book in the library stacks	2.34	3.19
7. Knowing where to get help with research	2.90	3.81
9. Overall group survey pre/post means	3.04	3.64

Table: Pilot Survey Responses (n = 55) questions and pre- and post mean scores for each question across 3 sections of the same course (1 = not comfortable; 5 = very comfortable; red means are the lowest scores and blue scores are the highest scores).

### Findings:

- Finding books in the library stacks was the task with lowest mean comfort score in the pre-survey
  - Themes** from the open-ended pilot questions:
    - Take advantage of resources
    - Be more efficient in research
    - Make research easier and faster

## Stage 4: Retest & Collect Quantitative Evidence (n= 61 pairs)

Table: Pre and Post Means of 61 pairs of the combined eight questions across 3 sections courses

Combined Questions (pre/post)	Mean	Pair N	Std. Dev.	Std. Error Mean	t	df	Sig. (2-tailed)	
Sect 1	pre	2.88	15	.542810	.140153	-5.703	14	.000
	post	3.93		.457575	.118145			
Sect 2	pre	3.13	21	.533268	.116369	-5.964	20	.000
	post	3.94		.428695	.093549			
Sect 3	pre	2.80	25	.673146	.134629	-7.275	24	.000
	post	3.90		.522913	.104583			

15 pairs from Section 1  
21 pairs from Section 2  
25 pairs from Section 3  
**61 pairs total**  
  
148 total surveys  
122 paired survey sets

**Methods:** In this last stage, a survey was conducted again but the pre- and post scores were paired and a paired t-Test was conducted to look at significant change in individual questions and the overall means for each section. (See *handout for additional t-Test data analysis by question in 3 separate sections*)



Open-Ended Question 2018 Responses Word Cloud

## Stage 3: Confirming Findings Across Multiple Audiences (n = 834)