

# Collecting Pre-Class Information from First Year Pharmacy Students in order to Increase Student Engagement with Library Instruction

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## Background

### Library orientation

- Large class ( average enrollment = 150)
- 25 of 150 students viewing remotely
- 1 Shot, 1 hour time limit
- No assignment so not at point of need
- Videotaped and available for later viewing
- Students with many different undergraduate experiences

Lack of engagement!

## Research Question

Studies of active learning suggest that students are more engaged when instruction is personalized and students feel they have input into class content.<sup>1,2,3,4</sup>

**Would asking students to examine instruction content before class and then reporting on things that were confusing or that they would like covered increase engagement during class?**

## Methods

1. Link to the Pharmacy subject guide sent out 1 week before library instruction

2. Students asked to spend ~15 minutes examining information on 7 tabs and then answer 3 open-ended questions.



## Results

### Top 3 Answers to Pre-Class Questions for 2015 and 2016

Question 1	Ranking	2015	2016	Question 2	Ranking	2015	2016	Question 3	Ranking	2015	2016
List at least one thing you learned from examining the Pharmacy subject guide	#1	Off-campus access (n=16)	4 way tie for #1 *Aubie Express *library access to ebooks/textbooks	List at least one thing you read that confused you or that you would like more information about.	#1	PubMed searching (n=26)	PubMed searching (n=24)	What do you believe is the most important information for me to cover in class about library resources or finding information on pharmacy topics?	#1	Searching efficiently and/or effectively (n=40)	Searching efficiently and/or effectively (n=42)
	#2	Tie *Aubie Express *Health Stats (n=15)	*off campus access *PubMed search tips (n=12)		#2	Finding Full Text/ Article Linker (n=21)	Which resources/ databases to use (n=20)		#2	Which resources/ databases to use (n=29)	Which resources/ databases to use (n=34)
	#3	The many resources available from the library (n=14)			#3	Which resources/ databases to use (n=16)	Finding Full Text/ Article Linker (n=18)		#3	PubMed searching (n=17)	PubMed searching (n=16)

	Response Rate	
Year	2015	2016
Percentage	76%	75%

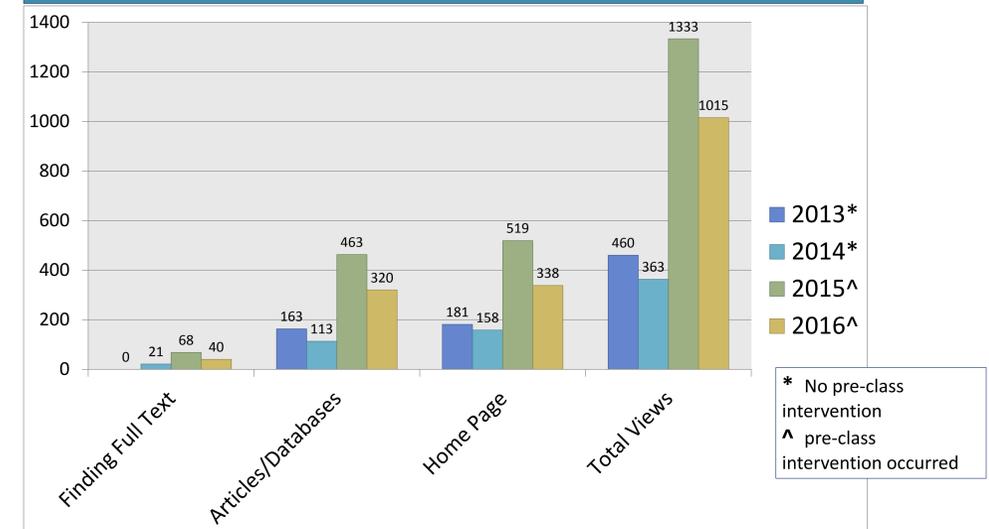
## Observational Results

2013 and 2014 No pre-class intervention	2015 and 2016 With pre-class intervention
Students checking email; on social media, little eye contact with librarian	Students listening and interacting with librarian; making eye contact with librarian
Only 1 or 2 students willing to answer open-ended questions asked by librarian	Many students from different sections of the room answering open-ended questions
No questions asked by students	Several questions asked by students during class time

## Conclusions

- Asking students what confused them and what they would like to see covered and using that information to structure class content seemed to increase engagement among first year Pharmacy students during library instruction.
- Information from students was used to decide what to cover during class but also how to “frame” instruction, for example, pointing out how PubMed filters can be used to more efficiently search for Randomized Controlled Trials
- An added bonus is that the pre-class survey also increased use of the Pharmacy Subject Guide in the months following class.

Figure 1: Page Views of Pharmacy Subject Guide from February 1<sup>st</sup> to April 15<sup>th</sup>



## References

1. Allen, D., & Tanner, K. (2005). Infusing active learning into the large-enrollment biology class: Seven strategies, from the simple to the complex. *Cell Biology Education*, 4(4), 262–268. <http://doi.org/10.1187/cbe.05-08-0113>
2. Hourigan, K. L. (2013). Increasing student engagement in large classes: The ARC Model of application, response, and collaboration. *Teaching Sociology*, 41(4), 353–359. <http://doi.org/10.1177/0092055X13491580>
3. Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223–231. <http://doi.org/http://dx.doi.org/10.1002/j.2168-9830.2004.tb00809.x>
4. Vander Meer, P. F., Ring, D. M., & Perez-Stable, M. A. (2007). Engaging the masses... *College & Undergraduate Libraries*, 14(1), 39–56. [http://doi.org/10.1300/J106v14n01\\_04](http://doi.org/10.1300/J106v14n01_04)



- Students answered questions via a Google form embedded in the subject guide.
- Information from students was used to structure the library instruction session.
- In-class engagement evaluated by observation of student interactions in class.
- Continued engagement with instruction content evaluated by examining use of the subject guide for 3 months following the class.