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# MEDICAL STUDENTS & WIKIPEDIA EDITING: Implications for reinforcing & improving information literacy skills

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## First-year medical students report an improvement in information literacy skills following a Wikipedia editing experience.

### INTRODUCTION

Medical education is increasingly using Wikipedia as a teaching tool. There is a gap in the medical education literature about how the editing activities can contribute to overall student learning outcomes related to information literacy (IL) skills. This pilot study examines the use of Wikipedia editing with first-year medical students as an intervention for reinforcing and improving IL skills. IL skills assessed included students understanding of authority, and how they find, use, cite, and synthesize information based on the Association of College & Research Libraries (ACRL) information literacy framework (ACRL, 2016).

### METHODS

First-year medical students (n=72) participated in editing activities from August 2018 to October 2018, completely online and asynchronously. At the end of the course 70 out of 72 students were successful in making edits and the articles they edited had a total of 1,840,000 views. At the conclusion of the editing experience, students were asked to respond to a retrospective survey to assess the impact of Wikipedia editing on their attitudes toward editing and IL skills.

- Survey sample size = 57
- Instrument: retrospective pre/post survey
- Data analyzed with parametric and non-parametric statistical tests to determine statistical significance

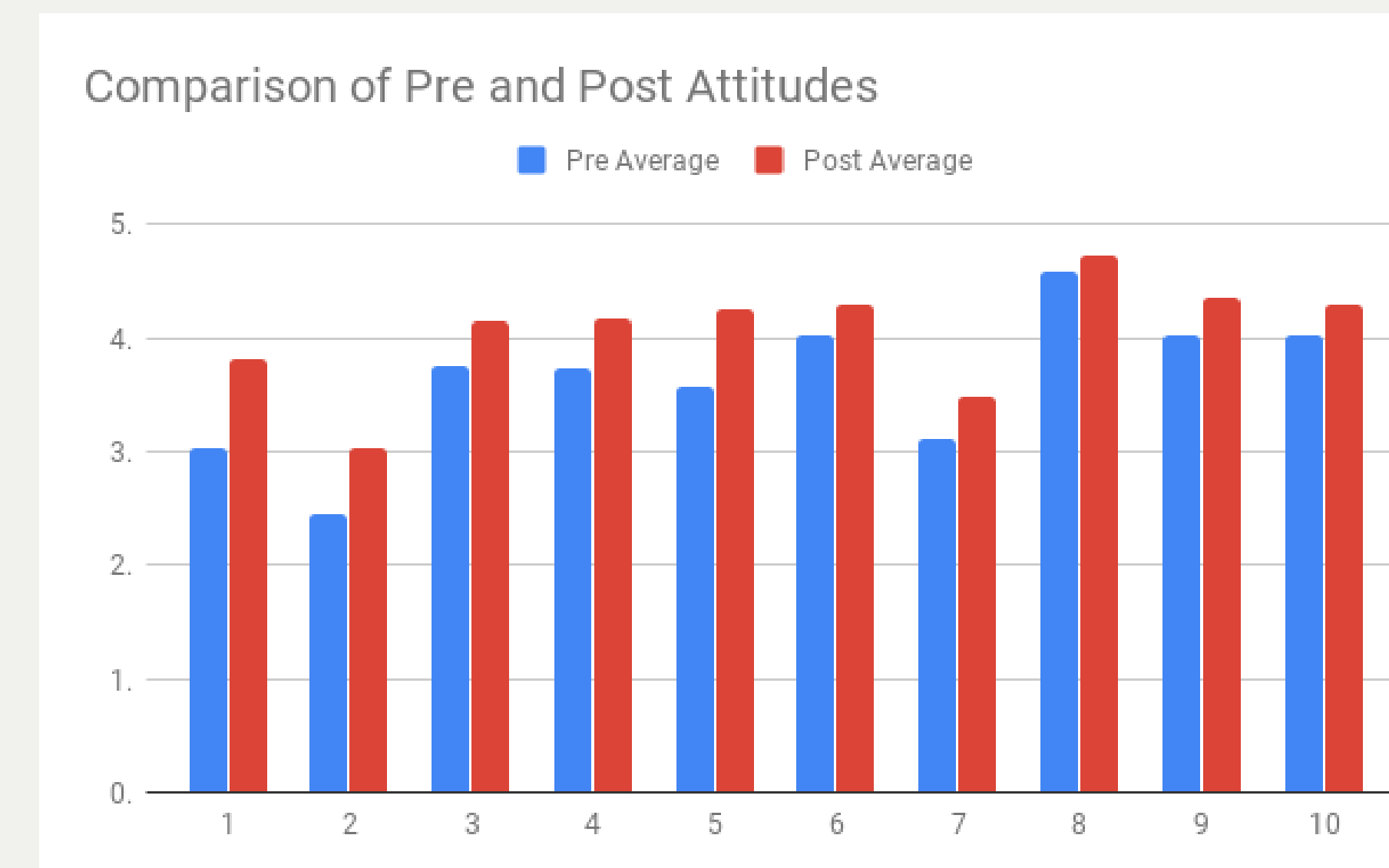
### INSTRUMENT

Pre/post attitudes and IL skills surveyed:

1. I view Wikipedia editing as a form of community service.
2. I feel a sense of social responsibility to contribute to Wikipedia.
3. I know how to find resources for my assignments.
4. I know how to determine the authority and credibility of sources.
5. I understand the increasingly social nature of online information and how sources develop over time.
6. I use the library resources to access biomedical/scholarly information.
7. I consider Wikipedia to be a valid and reliable resource for medical learning.
8. I believe the ability to find evidence-based information is vital to the practice of medicine.
9. I know how to synthesize information gathered from multiple sources.
10. I know how to give credit through proper citation.

### RESULTS

Data gathered show a statistically significant improvement in the students perceived IL skills. Parametric tests found 10/10 pre-post differences statistically significant ( $p < .05$ ) and in the positive/improvement direction. Non-parametric tests found 9/10 statistically significant (Q8,  $p = .06$ ).



#### SELECTED STUDENT FEEDBACK:

*"Realizing that general information seeking (including patients!) is conducted through online and the internet and it's quite important to make sure posted information reflects accuracy."*

*"Editing Wikipedia is something I never thought I would do nor thought I had the capability or knowledge to do, but knowing what goes into editing a Wikipedia page gives me a better understanding on the reliability of the Wikipedia articles I read or look at."*

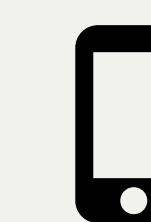
### DISCUSSION

Wikipedia editing for medical students has numerous implications for reinforcing and improving information literacy skills but also for orienting students to library resources and the online environment of information in general. As it concerns medical education, the editing experience is in line with competency 6.3 of the Liaison Committee on Medical Education (LCME, 2018), by allowing medical students to develop self-directed and lifelong learning skills.

**NEXT STEPS:** Streamline course content to shorten length of course and incorporate more methods for engagement.



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#### References

- LCME. (2018). Functions and Structure of a Medical School.
- ACRL. (2016). Framework for Information Literacy for Higher Education.

#### Acknowledgements

I wish to thank the MLA Research Training Institute for its training, support and encouragement to carry out this research. This project was made possible in part by the Institute of Museum and Library Services (RE-95-17-0025-17).