# A case study: Information literacy in an upper year Physics class


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Fourth year Physics students | Three hours teaching | Hands-on interactive sessions | Informal self-assessment | Formal quiz

## 1. Background

We were invited to provide an information literacy (IL) workshop to a fourth year Physics class at the University of Waterloo. This simple request transformed itself into a multiday IL workshop that included informal and formal assessment.

## 2. Intervention

We negotiated administering a pre-test and post-test to allow students to self-assess their IL skills before and after the intervention. It also allowed us to identify potential gaps in students' initial IL skills so we could analyze areas for maximum skill growth.

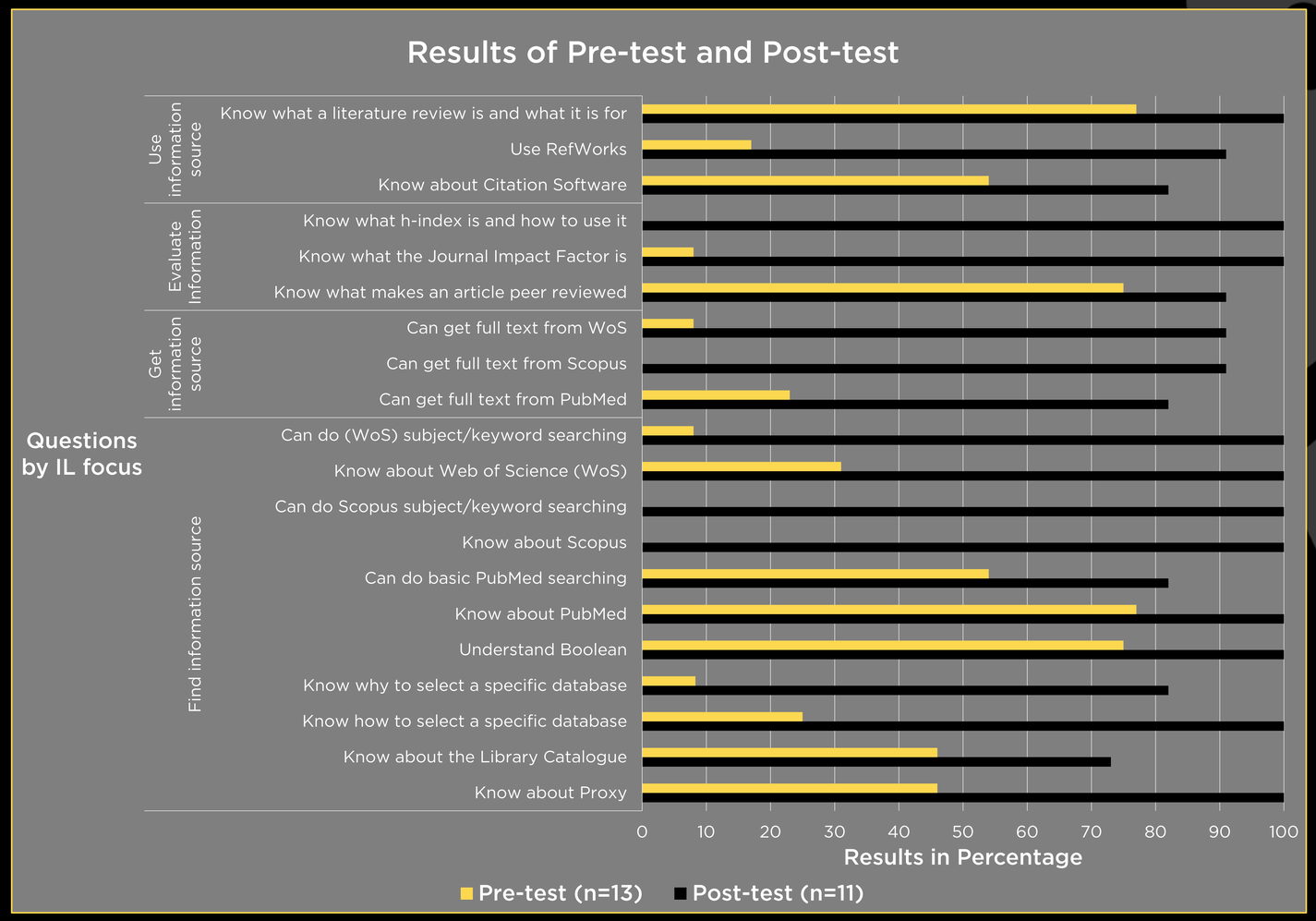
The workshop was comprised of three one hour classes. These teaching and training classes were conducted in a computer lab and were completely hands-on. Components of the sessions include:

- Follow the leader
- Discussion
- Self-exploration
- Play
- Experiential learning

## 3. Assessment

In a fourth class, students completed an hour long hands-on quiz based solely on the practical application of the skills learned in our workshop. The quiz was included in the course assessment and was worth 5% of their final grade.

As part of the workshop, we created the pre-test, post-test, and in-class quiz. We were also responsible for the analysis and marking.




## 4. Conclusions/Lessons Learned

This was a valuable learning experience for everyone involved. Student testimonials, self-assessment, and quiz grades demonstrated student learning. The Professor recognized the value to the students and enhanced her information literacy skills as well. We gained practical experience with formal and informal evaluation, and gained confidence in modifying content and delivery based on feedback and on-the-fly questions. Our teaching style of answering questions and modifying content based on student interest and inquiry changed the dynamics from us solely as teachers, to a more collaborative environment. This allowed participants to become active learners and foster their love of learning. To fully empower students, we also incorporated different teaching and learning styles.

**91% Average quiz grade**

## 5. Testimonials

"These workshops were fantastic. I think all science students would benefit from these."

"The workshops are very helpful, thank you very much!"

"I feel better prepared for graduate school - where knowing how to find and read articles is very critical."

## 6. Final Take Away

Everything is negotiable. We negotiated the assessment techniques, location, content, and length of the workshop. It is important to be flexible; ask, adapt, and do the most with the opportunity given.



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