

Background

Nursing students require essential information literacy (IL) skills: locate research articles, assess for quality, and apply to practice-based scenarios^{1,2}. Understanding research remains a common challenge, with one study finding 40% of 2nd year nursing students have difficulty reading journal articles³, yet stand-alone IL workshops rarely allow time needed to develop critical reading, assessment, and reflection practices⁴.

Our discovery-based, scaffolded IL learning approach is modeled on the student journal club, which has been found to positively impact students' application of research in clinical contexts^{5,6}. By embedding IL instruction strategically throughout a 1st year nursing course we hoped to enhance understanding, mindset, retention, and transferability of IL⁴.

Journal Club Learning Journey

Six Journal Clubs throughout course:

- 1-Explore CINAHL & discover topical results
- 2-Apply search strategies & select articles
- 3-Preliminary synthesis of articles
- 4-Effectively read research articles
- 5-Quality appraisal & data extraction
- 6-Apply evidence in written assignment



Research Aim

This study sought to identify the impact of the journal club on nursing student IL self-efficacy, as measured through the validated Information Literacy Self-Efficacy Scale⁷.

KEY REFERENCES

¹Association of College and Research Libraries. (October 31, 2013). *Information literacy competency standards for nursing*. American Library Association. <http://www.ala.org/acrl/standards/nursing>

²Mitchell & Pereira-Edwards (2022). Exploring integrated threshold concept knowledge as a route to understanding the epistemic nature of the evidence-based practice mindset. *Journal of Professional Nursing*, 42.

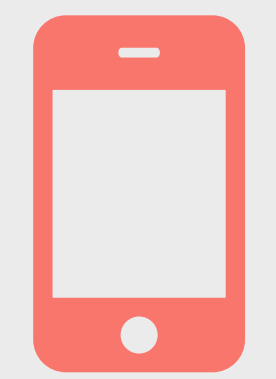
³Chadoir & Trepanier (2016). Writing assignments: A relatively emotional experience of learning to write in one baccalaureate nursing program. *Quality Advancement in Nursing Education* 2(2).

⁴Ippoliti (2018). Re-imagining the one-shot: The case for transformational teaching. *Scholarship of Teaching and Learning, Innovative Pedagogy*, 1(1).

⁵Kim, Sabel, McHargue, & Bloom (2020). Impact of an extracurricular, student-led journal club on evidence-based practice among baccalaureate nursing students. *International Journal of Nursing Education Scholarship*, 17(1).

⁶Szucs, K. A., Benson, J. D., & Haneman, B. (2017). Using a guided journal club as a teaching strategy to enhance learning skills for evidence-based practice. *Occupational Therapy in Health Care*, 31(2)

⁷Kurbanoğlu, Akkoyunlu & Umay (2006). Developing the information literacy self-efficacy scale. *Journal of Documentation*, 62(6).



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Scaffolding IL Learning and EBP Exploration In A Semester-Long Journal Club: Impact On Nursing Student Self-Efficacy

Jody Nelson¹, Hanneke Croxen², Lisa McKendrick-Calder², Lam Ha³, Wanhua Su⁴

¹Library ²Faculty of Nursing ³Senior Math & Statistics Student ⁴Department of Math & Statistics

Over the semester-long course-based student journal clubs we saw significant improvement in student IL self-efficacy scores relating to the ability to locate, assess, & synthesize research sources.

Tables compare mean scores at the start and end of the semester-long journal club on selected, relevant items ($n_{pre}=37$; $n_{post}=26$)				
Table 1: Defining the need for information				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre	P-Value
Define the information I need	4.351(1.338)	5.808(0.939)	1.456	0.0000115*
Table 2: Initiating the search strategy				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre.	P-Value
Identify a variety of potential sources of information	4.378(1.516)	6.192(0.981)	1.814	0.00000186*
Limit search strategies by subject, language and date	4.189(1.777)	6.462(0.761)	2.272	0.000000199*
Initiate search strategies by using keywords and Boolean logic	3.703(1.777)	6.5(0.762)	2.797	0.00000000382*
Table 3: Locating and accessing the resources				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre	P-Value
Decide where and how to find the information I need	4.676(1.51)	6.077(1.055)	1.401	0.000102552*
Locate resources in the library using the library catalogue	2.472(1.647)	5.52(1.085)	3.048	0.000000013*
Table 4: Assessing and comprehending information				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre	P-Value
Determine the authoritativeness, currentness[sic], and reliability of the information sources	3.838(1.772)	6.462(0.761)	2.624	0.00000000837*
Select information most appropriate to the information need	4.595(1.481)	6.231(0.71)	1.636	0.00000333*
Table 5: Interpreting, synthesizing, and using information				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre	P-Value
Synthesize newly gathered information with previous information	4.194(1.818)	6.04(0.935)	1.846	0.0000207*
Table 6: Communicating information				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre	P-Value
Write a research paper	3.757(1.832)	6.115(0.864)	2.359	0.000000553*
Create bibliographic records and organize the bibliography	2.838(2.035)	5.692(1.49)	2.854	0.000000993*
Make citations and use quotations within the text	4.392(1.784)	6.462(1.029)	2.07	0.000000401*
Table 7: Evaluating the product and process				
	Pre-test	Post-test	Diff. in Mean	
	M(SD)	M(SD)	Post-Pre.	P-Value
Learn from my information problem solving experience and improve my information literacy skill	4.73(1.726)	6.308(0.788)	1.578	0.0000739*
Criticize the quality of my information seeking process and its products	4.649(1.798)	6.115(0.816)	1.467	0.000724435*

Notes:

- *statistically significant
- Two-sample t-test was used on all items due to missing values
- P-values of individual items were compared to $\alpha_1 = 0.00179$

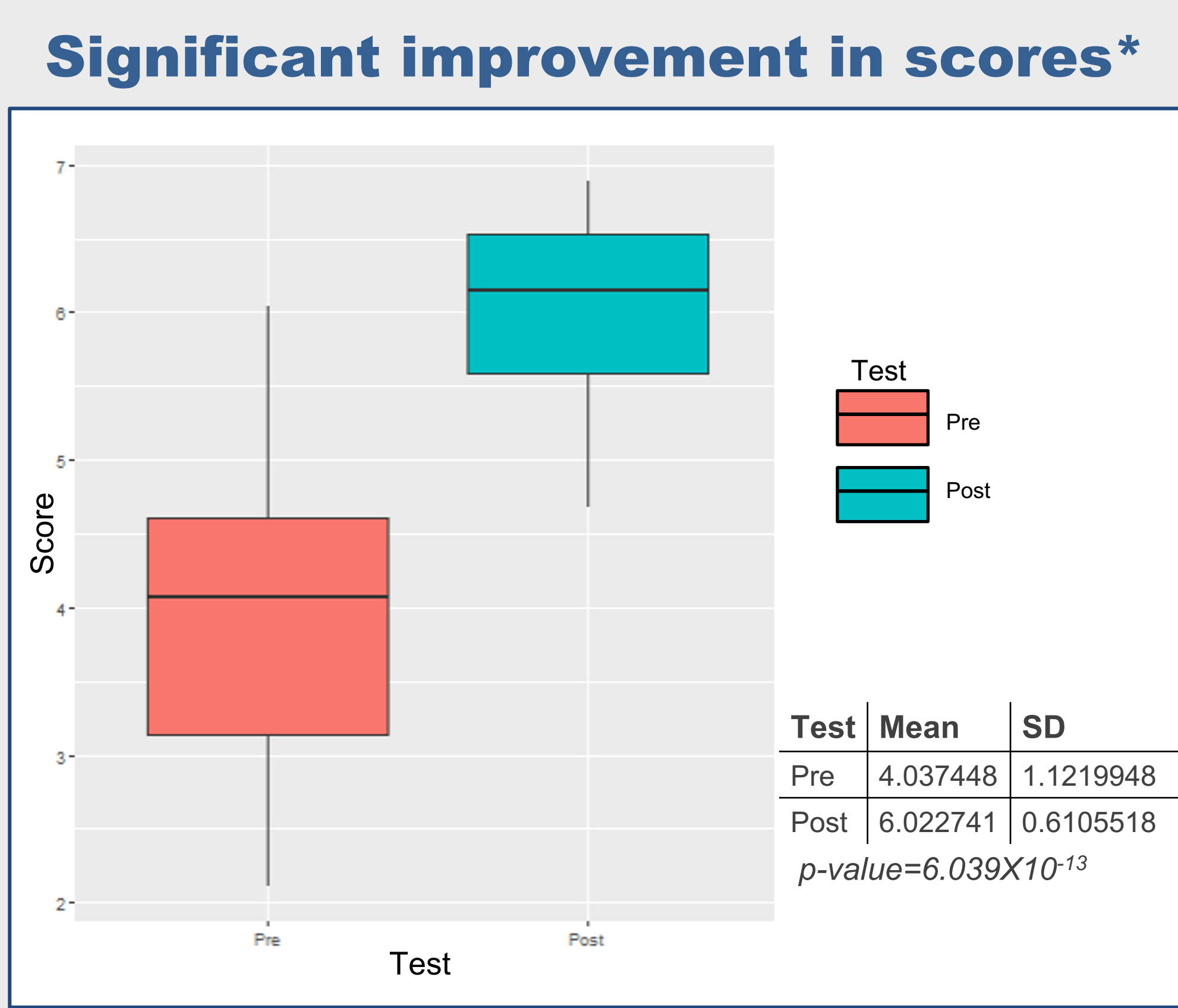
Methods

Study Design

- Pre-post non-experimental survey design
- Tool: Information Literacy Self-Efficacy Scale⁷
- 28-items (7 subdomains); 7-point Likert scale
- Two additional short answer questions

Statistical Analysis

- All analysis was conducted in R (version 4.2.3)
- Descriptive statistics incl. mean and standard deviations were computed on all indiv. Items
- Missing values removed when calculating mean and standard deviation
- Average score taken if more than 1 option chosen
- Two-sample t-test was used on all items



*score=average score of 28 items for each student.

Short answer response trends

Confidence in searching, evaluating, & writing

"I think I gained confidence just from learning a lot more about how to find sources and how to read them"

"The journal club gave me tools and skills that will improve the essays I have written and will write in the future."

Social value of journal clubs for students

"It helped with being more comfortable asking questions and developing friendships with some classmates, as well as the assignments aiding me in how to do certain things"

"It gave me a chance to ask questions and explained how to do the research so I didn't have to feel like I was the only one feeling this way. It made me realize research is easier than I had always thought and now I can tell if something is reliable or not."

Conclusion

The journal club helped enhance IL self-efficacy for first year nursing students. Students developed relationships and worked together. Based on our findings, this strategy will continue to be used.

Future research considerations will be to conduct a longitudinal study to examine retention of confidence, skill and mindset.