



New Assessment Design: Information Literacy Instruction for a Second-Year Chemistry Class

Shiyi Xie, Jason Dyck - Western Libraries, University of Western Ontario

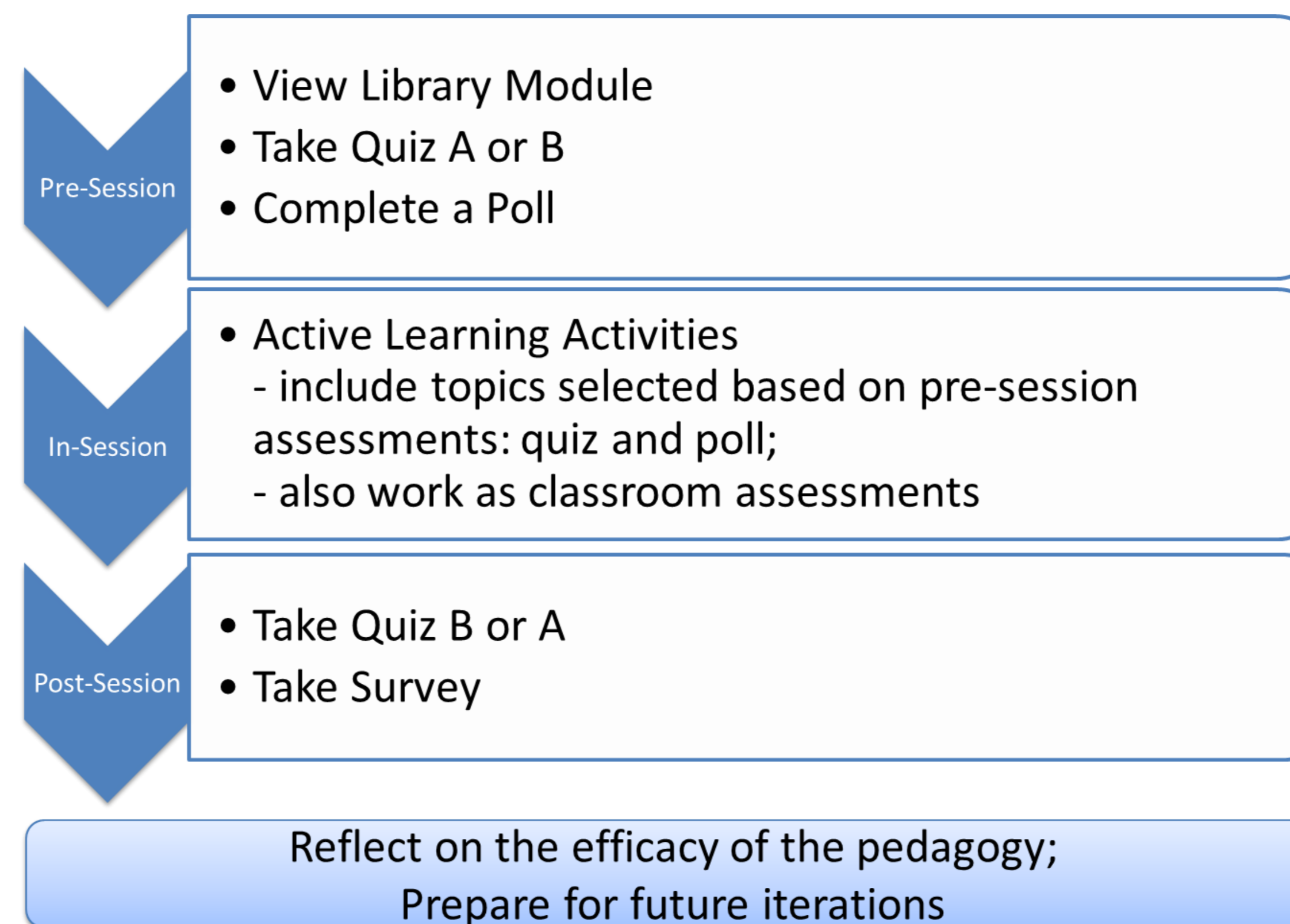
Context

Previous Sessions. The librarian offered a 2-3 hour library session to the CHEM 2281 (Inorganic Chemistry of the Main Group Elements) class, and at the end of the session handed out a library assignment (hard copy) to students. Students had 1 week to complete the assignment and the TAs graded the assignment.

In Spring 2019. The librarian reflected on the teaching practice for this course, considering student feedback and in consultation with the course instructor. Then, she decided to make a pedagogical change for the course-integrated library session to provide a learner-centred learning experience, starting from the Winter semester of 2020.

In Summer 2019. The librarian and the MLIS Co-Op Student developed an online library module, an important component of a flipped classroom strategy and a platform for assessments. The online module contains the ten lessons listed below:

- ✓ **Introduction**
Summary of learning outcomes, instructions, and list of requirements.
- ✓ **Lesson 1: Western Libraries 101**
Tour of Western Libraries, online resources, and contact information for library help.
- ✓ **Lesson 2: Scientific Literature**
Review of the general characteristics of scientific literature.
- ✓ **Lesson 3: Scholarly Journal Articles**
Analysis of scholarly journal articles and how to read them.
- ✓ **Lesson 4: Search Strategies**
Tips on concept mapping and forming search strings.
- ✓ **Lesson 5: Searching the Library**
Overview of searching with Summon and the library catalogue.
- ✓ **Lesson 6: Finding Chemistry Information**
Instructions on how to find chemical information searching databases.
- ✓ **Lesson 7: Laboratory Safety Resources**
Guide to available resources on laboratory safety.
- ✓ **Lesson 8: Information Evaluation**
Look at peer review and the CRAAP test.
- ✓ **Lesson 9: Academic Integrity**
Review of plagiarism, its consequences, and how to avoid it.
- ✓ **Lesson 10: Citation Management**
Pointers on citation styles and citation management tools.
- ✓ **References**
List of the resources used to create this library module.



Assessment - Poll

Pre-library session
Mandatory

The screenshot shows the OWL library module interface. The top navigation bar includes 'Home' and 'Library Module for Chem'. The main content area is titled 'Polls' and contains a 'Vote' section with the question: 'Which topics would you like to explore in the face-to-face library session?'. There are five radio button options:

- How to develop a search strategy?
- How to find books and reference material (e.g. for chemical's property data)?
- How to find and read journal articles?
- How to evaluate information?
- How to cite sources?
- How to avoid plagiarism?

At the bottom of the poll are buttons for 'Vote!', 'Reset', and 'Cancel'.

Assessment - Quizzes

Pre- & Post-library session
Mandatory

Begin Assessment

"Library Quiz A" for Library Module for Chem

The library quiz consists of 10 questions. After each question, there is a follow-up survey question for you to report your confidence level in answering the question.

This assessment is due Friday, 2020-Jan-31 12:00 AM.

There is no time limit for this assessment.

This assessment is linear, which means you will see questions one at a time and you will not be able to go back to a previous question after clicking Next.

You can submit this assessment 2 time(s). Answers from previous attempts will not be available within the assessment during subsequent attempts. Your highest score will be recorded.

Q6. Check the full text of this article: G.F. Fulmer, A.J.M. Miller, N.H. Sherden, H.E. Gottlieb, A. Nudelman, B.M. Stoltz, J.E. Bercaw, K.I. Goldberg. *Organometallics*, 2010, 29, 2176-2179.

What signals for ethanol do you expect to see in the spectrum if the ¹H NMR experiment is conducted in CDCl₃? Select all that apply.

- A. 3.72 (q, ³J_{HH} = 7 Hz, HOCH₂CH₃)
- B. 1.32 (s, HOCH₂CH₃)
- C. 0.87 (s, HOCH₂CH₃)
- D. 1.25 (t, ³J_{HH} = 7 Hz, HOCH₂CH₃)

Please rate how confident you are in your answer to Q6:

	Guess, not confident at all	Slightly confident	Somewhat confident	Confident	Certain, very confident
Confidence Level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Reset Selection](#)

Assessment - Survey

Post-library session
Voluntary

Collect faculty, TA, and student feedback on their experience with library instruction: flipped classroom, active learning practices, etc.