

# A Scoping Review Protocol on Experiential Learning in Higher Education First-Year Undergraduate Courses

## Authors:

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## Objective:

The objective of this scoping review is to understand what is known about experiential learning in higher education first-year undergraduate courses within current research. This scoping review will focus on the question “What is known about experiential learning in higher education first-year undergraduate courses?”

## Introduction:

Experiential learning has become a cornerstone in higher education with institutions challenging traditional education systems with novel, experiential tasks for student learning. While experiential learning is prevalent in medical, nursing, graduate, and upper level undergraduate courses, less is known about first-year undergraduate courses and how experiential learning is applied to students’ learning.

A preliminary search was conducted via Google Scholar to determine if a scoping review had been previously documented. Two scoping reviews were found, O’Flaherty and Phillips (2015) and Kang et al. (2022). O’Flaherty and Phillips (2015) published a scoping review regarding flipped classrooms in undergraduate degrees and Kang et al. (2022) published a scoping review for Human-Computer Interaction computer sciences however, neither specified first year courses as their population focus, thus our scoping review remains relevant to today’s literature.

## Methods:

Our scoping review will follow the JBI synthesis model (Peters et al., 2020 version) and will be reported in accordance to the Preferred Reporting Items for Systematic Reviews and Meta-analyses Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018). The flow diagram from the PRISMA 2020 updated guideline will be used to show the study selection process (Page et al., 2021).

## Review Question:

In this scoping review, our question is “What is known about experiential learning in higher education first-year undergraduate courses?”

## Eligibility Criteria:

### Population/Participants:

Our population includes undergraduate higher education at an accredited institution and/or facility. This includes higher education, undergraduate, tertiary, post secondary, and college education. Vocational institutions, two-year colleges, technical institutions, and graduate studies will be excluded.

### Concept:

Our concept focuses on experiential learning as defined by the University of Calgary (Reid et al., 2020) and the PEAR framework (McRae, N., 2018). Included studies must incorporate experiential learning into the course curriculum and have the ongoing reflection component. Studies with no incorporation of ongoing reflection will be excluded.

### Context:

Our context focuses on first-year undergraduate courses. This includes freshman, freshmen, first year, 1<sup>st</sup> year, and introductory courses and education. Sophomore, advanced, upper-level, second-year, third-year, fourth-year, junior,

and senior students will be excluded. Additionally, medicine, nursing, undergraduate and graduate health sciences, health care, pharmacy, dental, veterinary medicine, engineering, and law will be excluded.

### Types of Sources:

This scoping review will include records from accredited databases. We will exclude meta-analyses, books, book chapters, opinion papers, dissertations, documents not published in a journal, systematic reviews, and literature reviews. We will scan references of literature and systematic reviews for relevant articles.

Grey literature will include conference proceedings with full text. Conference proceedings without full text access will be excluded.

### Methods:

This scoping review will follow the JBI methodology for scoping reviews (Peters et al., 2020 version) and will be reported in accordance to PRISMA-ScR.

### Search Strategy:

An initial search via Google Scholar was used to determine key records for review in addition to sourcing any relevant scoping reviews previously completed and key records relating to our topic. The database ERIC was used to develop a full search strategy; using text words from titles, abstracts, keywords, as well as index terms. Appendix A below includes the search strategy conducted via ERIC and will be translated and adapted to all databases used. The search focuses on three main aspects: undergraduate students in higher education, experiential learning, and first-year courses. For this search, keywords will also be used with subject headings.

We will only include articles and grey literature in English language due to translation challenges however, potentially relevant records of non-English language will be included in the appendices of the scoping review. Due to rapid changes and adaptations in educational teaching and learning, this scoping review will only include records from the last 10 years (2013-2023).

Databases to be searched include:

- Academic Search Complete
- Business Source complete
- Education Research Complete
- ERIC
- APA PsycInfo
- GeoRef
- GeoRef in Process
- Web of Science

### Study Selection:

All records identified will be uploaded to Covidence and deduplicated. An inter-rater calibration exercise will be completed with 50 randomly chosen records to test inclusion and exclusion criteria. Excel will be used to conduct the inter-rater calibration exercise, and an 80% agreement will be required. An Excel data extraction template will be piloted via seed records.

Two reviewers will independently screen titles and abstracts. Full text of potentially relevant records will be assessed independently by the same reviewers. Disagreements will be resolved through discussion at all stages of the selection process. All elements will adhere to PRISMA-ScR (Tricco et al., 2018) and will be displayed as a flow diagram as outlined in the PRISMA 2020 guidelines (Page et al., 2021).

### Extraction of Results:

One reviewer will extract data from the included records. Prior to this, a pilot test will be conducted by two reviewers on two to three records to ensure accuracy and understanding of the data to be extracted. The data extraction template will be modified and updated as required. Spot checking 10% of the data extraction will be conducted by a second reviewer.

#### Draft Data Extraction Chart:

- Title
- Author(s)
- Year of Publication
- Country of Study
- Discipline/Faculty
- Number of Students
- Type of Higher Education Institution
- Purpose of Study
- Record Type
- Type of Experiential Learning
- Type of Pedagogy
- Type of Experience
- Type of Assessment
- Type of Reflection

#### Presentation of Results:

The data extracted for this scoping review will be presented in a table format addressing the P.E.A.R. framework elements. This will be expanded on in the full scoping review.

This scoping review does not require ethics approval.

#### References:

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- McRae, N. (2018). *The P.E.A.R. Framework for experiential learning: Institutional level* [PowerPoint slides, PDF file]. [https://uwaterloo.ca/centre-for-teaching-excellence/sites/default/files/uploads/files/waterloo\\_exl\\_norah\\_mcræ\\_final.pdf](https://uwaterloo.ca/centre-for-teaching-excellence/sites/default/files/uploads/files/waterloo_exl_norah_mcræ_final.pdf)
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- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garrity, C., Lewin, S., . . . Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of internal medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>

## Appendix A:

ERIC Search  
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#	Query	Limiters/Expanders	Results
S1	TI ( "higher education" or undergrad* or college* or "tertiary education" or "post secondary" or postsecondary or Baccalaureate or universit* ) OR KW ( "higher education" or undergrad* or college* or "tertiary education" or "post secondary" or postsecondary or Baccalaureate or universit* ) OR AB ( "higher education" or undergrad* or college* or "tertiary education" or "post secondary" or postsecondary or Baccalaureate or universit* )	Search modes - Find all my search terms	461,172
S2	DE "College Students"	Search modes - Find all my search terms	99,705
S3	DE "Undergraduate Students" OR DE "Undergraduate Study"	Search modes - Find all my search terms	61,855
S4	DE "Universities" OR DE "Colleges" OR DE "Research Universities" OR DE "State Universities"	Search modes - Find all my search terms	39,726
S5	DE "Higher Education" OR DE "College Instruction"	Search modes - Find all my search terms	521,865
S6	DE "Postsecondary Education"	Search modes - Find all my search terms	218,914
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6	Search modes - Find all my search terms	678,239
S8	TI ( (first or freshman* or freshmen* or 1st or introductory) N3 year ) OR KW ( (first or freshman* or freshmen* or 1st or introductory) N3 year ) OR AB ( (first or freshman* or freshmen* or 1st or introductory) N3 year )	Search modes - Find all my search terms	34,576
S9	TI ( ("first year" or freshman* or freshmen* or 1st or introductory) N3 course* ) OR KW ( ("first year" or freshman* or freshmen* or 1st or introductory) N3 course* ) OR AB ( ("first year" or freshman* or freshmen* or 1st or introductory) N3 course* )	Search modes - Find all my search terms	14,743
S10	DE "Introductory Courses"	Search modes - Find all my search terms	9,054
S11	DE "College Freshmen" OR DE "First Year Seminars"	Search modes - Find all my search terms	14,307
S12	S8 OR S9 OR S10 OR S11	Search modes - Find all my search terms	57,868
S13	TI ( (experiential or active or "problem based" or "hands on" or "project based" or authentic or discovery or situated) N3 learning ) OR KW ( (experiential or active or "problem based" or "hands on" or "project based" or authentic or discovery or situated) N3 learning )	Search modes - Find all my search terms	23,995

	OR AB ( (experiential or active or "problem based" or "hands on" or "project based" or authentic or discovery or situated) N3 learning )		
S14	TI experiential N3 education OR KW experiential N3 education OR AB experiential N3 education	Search modes - Find all my search terms	1,441
S15	TI experiential N3 course* OR KW experiential N3 course* OR AB experiential N3 course*	Search modes - Find all my search terms	390
S16	DE "Problem Based Learning" OR DE "Active Learning" OR DE "Discovery Learning"	Search modes - Find all my search terms	19,501
S17	DE "Experiential Learning" OR DE "Field Experience Programs" OR DE "Authentic Learning" OR DE "Situated Learning"	Search modes - Find all my search terms	25,194
S18	S13 OR S14 OR S15 OR S16 OR S17	Search modes - Find all my search terms	52,784
S19	S7 AND S12 AND S18	Search modes - Find all my search terms	2,734
S20	S7 AND S12 AND S18	Limiters - Peer Reviewed Search modes - Find all my search terms	2,174
S21	S7 AND S12 AND S18	Limiters - Peer Reviewed; Date Published: 20130101-20231231 Search modes - Find all my search terms	1,414