Project-Based Learning in Research Courses

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Topics

❖ Research Courses: Learner Outcomes
❖ Project-Based Learning
❖ Undergraduate Example: Employing Quantitative Inquiry
❖ Graduate Example: Employing Qualitative Inquiry

Research Courses: Learner Outcomes

❖ Do you want your students to be:
  ◦ competent consumers of research?
  ◦ critical thinkers about the value and limitations of research?
  ◦ conversant with cultural inclusion and responsiveness in research practices?
  ◦ trained in applying and evaluating evidence-based practices?
  ◦ prepared to propose and undertake research projects?
Research Courses: Learner Outcomes

❖ “Upon completing this course, students can:
❖ “analyze research reports for appropriateness of methodology and analysis in answering the questions posed by the investigators;
❖ “appraise research literature with regard to multicultural inclusion in study participation and testing of assessment instruments, as well as cultural appropriateness of specific research methodologies;

❖ “explain the importance of fidelity and outcomes evaluation in implementation of evidence-based practices;
❖ “utilize online resources to perform searches, survey findings and build a library of relevant literature;
❖ “choose an area of interest for the master’s project, and
❖ “demonstrate skill in assembling a database of citations, full articles and other resources toward the formulation of the master’s project.”

Project-Based Learning

❖ From the Buck Institute of Education (bie.org):
❖ “Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge.”
**Project-Based Learning**

- Advantages of Project-Based Learning
  - meaningful engagement with a real-world question
  - cooperative, collaborative, student-directed learning
  - active and reflective elements
  - multimodal processing of key information/activities
  - direct application to future counseling work

**Undergraduate Example**

Employing Quantitative Inquiry
Employing Quantitative Inquiry

❖ Quasi-Experimental Research
❖ preparation: research question, hypothesis, variables (predictor and criterion), literature review
❖ preparation: CITI training and IRB application
❖ data collection: closed client files
❖ data display: charts and graphs
❖ sharing: findings and reflection on experience

Employing Quantitative Inquiry

❖ Preparation: research question, hypothesis, variables (predictor and criterion), literature review
❖ lecture/discussion
❖ online learning object (Lodestar)
❖ quiz

Employing Quantitative Inquiry

❖ Preparation: CITI training and IRB application
❖ CITI or other training in ethics of research with human subjects
❖ IRB application (or exempt filing) as a training tool
Employing Quantitative Inquiry

❖ Data collection: closed client files
❖ collection of data exclusive of PHI allowable under both HIPAA and 42 CFR
❖ demographic and study variables
❖ EMR

Employing Quantitative Inquiry

❖ Data display: charts and graphs
❖ tutorials in class and online
❖ formative feedback

Employing Quantitative Inquiry

❖ Sharing: findings and reflection on experience
❖ brief in-class presentations
❖ questions
❖ responses to questions
### Graduate Example

Employing Qualitative Inquiry

- Semi-Structured Interview
  - preparation: research question, literature review, interview design
  - preparation: CITI training and IRB application
  - data collection: mock interviews
  - data analysis: grasp of process
  - sharing: findings and reflection on experience

### Example

**The Recovery Narratives Project**

A Qualitative Inquiry into Lived Experiences of Substance Use, Mental Health and Family Recovery
Employing Qualitative Inquiry

❖ Preparation: research question, literature review, interview design
❖ considering definitions
❖ exploring limited literature
❖ utilizing citation manager
❖ scripting questions

❖ Preparation: CITI training and IRB application
❖ CITI: researcher (not student) training
❖ IRB: research ethics and review types
❖ IRB application as a teaching tool: components and purpose of each
❖ application reviewed by instructor
Employing Qualitative Inquiry

❖ Data Collection: mock interviews (groups of three)
  ❖ considering necessary interviewing skills
  ❖ reviewing fidelity to script
  ❖ holding/video recording interviews
  ❖ debriefing process

Employing Qualitative Inquiry

❖ Data Analysis: grasp of process
  ❖ considering necessary analysis skills
  ❖ delineating the process
  ❖ exploring possible results
  ❖ contextualizing the work

Employing Qualitative Inquiry

❖ Sharing: findings and reflection on experience
  ❖ reviewing forms of reporting
  ❖ sharing commonalities and differences
  ❖ reflecting on multiple perspectives
  ❖ reflecting on lessons learned
Thank You!

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