



IUPUI

**STEM EDUCATION
INNOVATION AND
RESEARCH INSTITUTE**

INDIANA UNIVERSITY-PURDUE UNIVERSITY

Indianapolis

Teaching@IUPUI: An Introduction to Course Evaluation and Assessment

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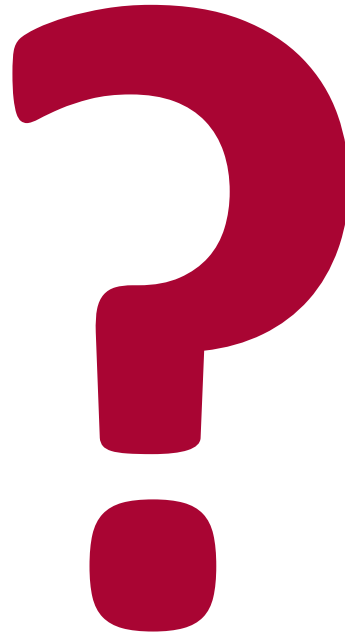
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April 19, 2017

Presentation Outline

- Why is assessment and evaluation important?
- What is assessment versus evaluation?
- How do you develop an assessment/evaluation plan?
- What are common data collection techniques?
- What are acceptable data analysis procedures?
- How can you ensure that your results are valid and reliable?
- What should you do with your findings?

Why is assessment and evaluation important?



What is assessment vs. evaluation?

Assessment	Evaluation
To improve student learning in-situ	To improve student learning next time
To monitor what students are learning	To understand what students learned
To improve teaching	To judge teaching
To obtain feedback on activities	To judge the effectiveness of activities
To improve communication and collaboration within the classroom	To communicate findings beyond the classroom

How do you develop an assessment/evaluation plan?

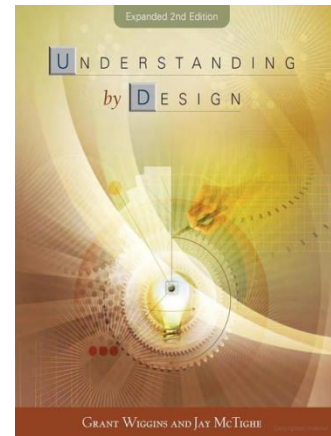
Identify the Desired Results



Determine Acceptable Evidence



Plan Learning Experiences



Are the desired results, assessments, and learning activities ALIGNED?

What are common data collection techniques?

Qualitative

- Observations
- Interviews
- Open-ended surveys
- Field notes
- Documents
- Artifacts
- Sound, video, etc.

Quantitative

- Content tests
- Quizzes
- Clicker questions
- Likert-type survey questions
- Course Rubrics
- Any other quantized qualitative data

What are acceptable data
analysis procedures?

QUALITATIVE

Versus

QUANTITATIVE

How can you ensure that your results are **valid** and **reliable**?

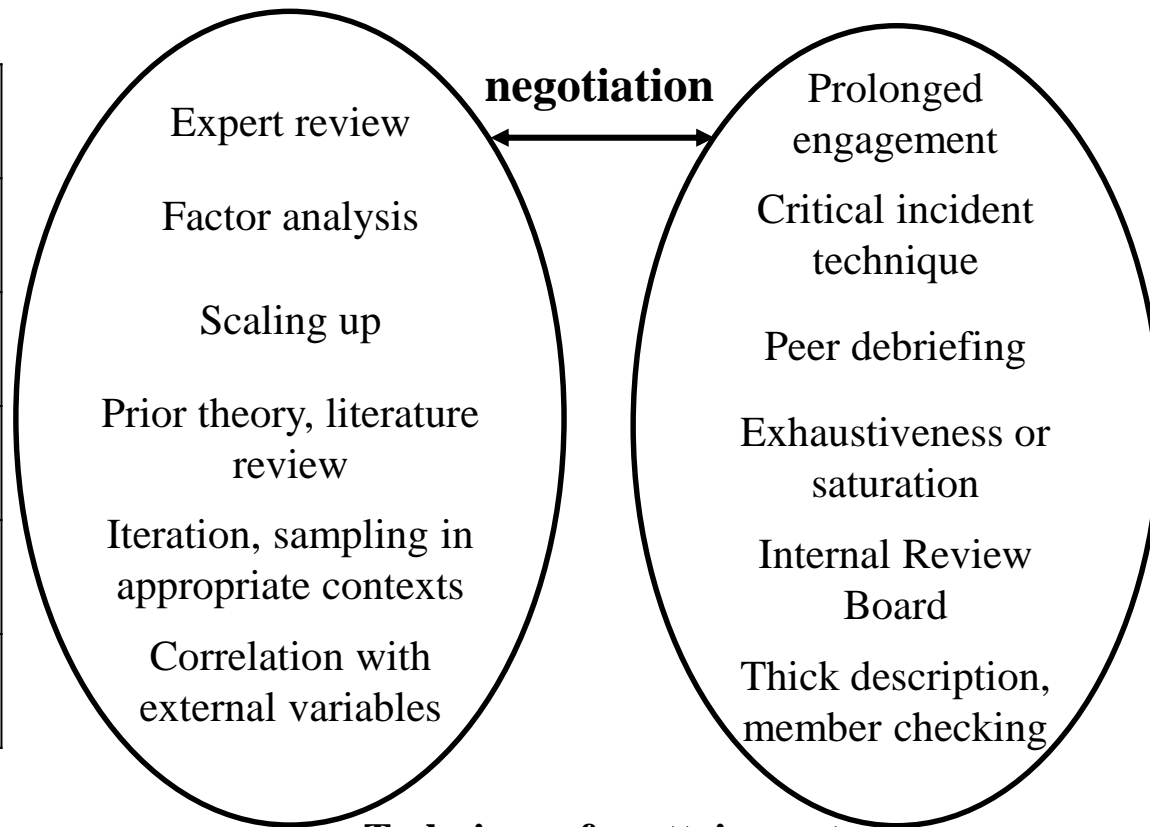
QUANTITATIVE

QUALITATIVE

Validity Aspects

Validity Aspects

Content
Structural
Generalizability
Substantive
Consequential
External



Theoretical
Procedural
Communicative
Pragmatic
Ethical
Process Reliability

Techniques for attainment

An example based on a project...

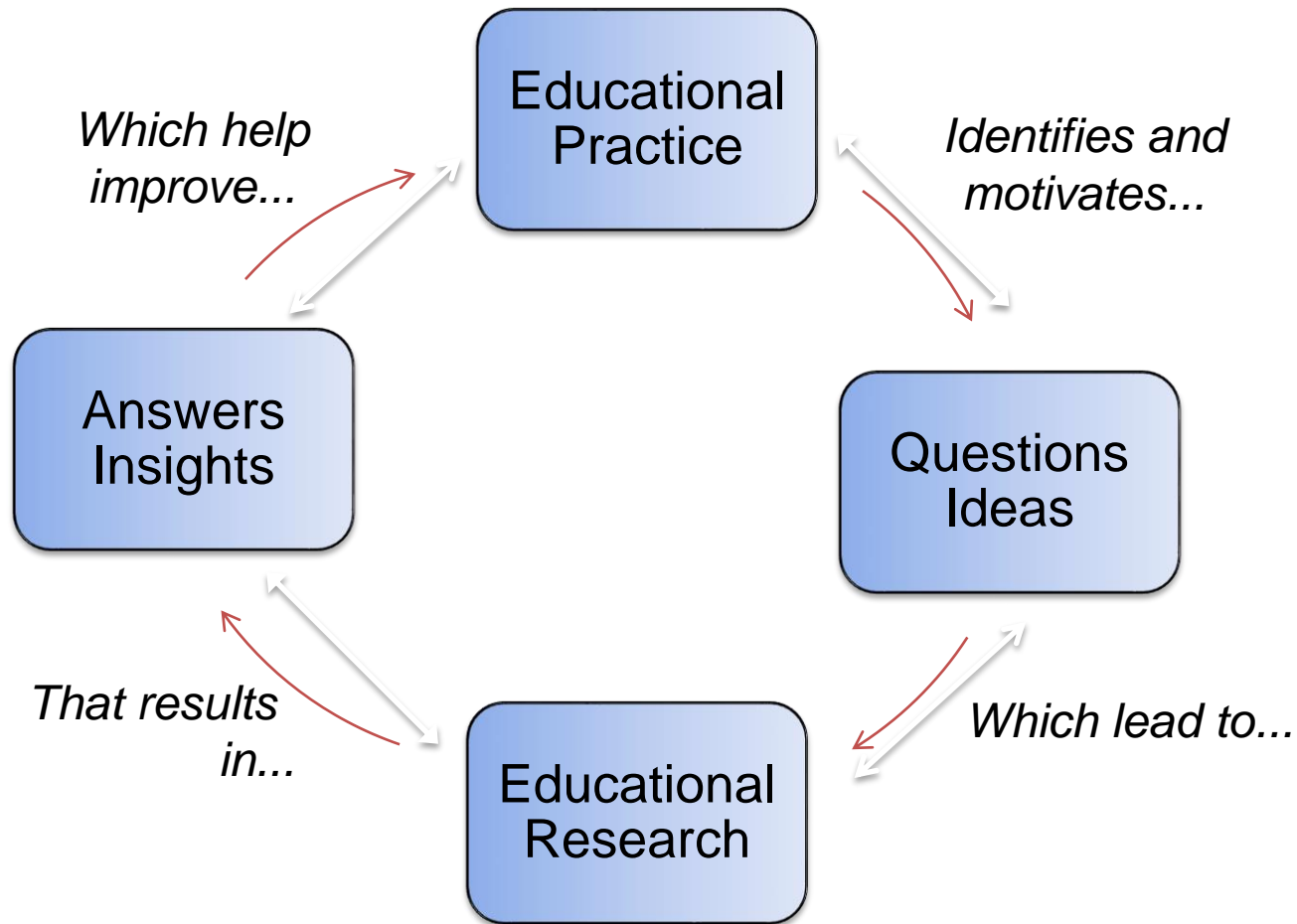
CTL Assessment Strategies

- Classroom observations focused on (i) pedagogy, (ii) collaborations, and (iii) means to improve student learning.
- Focus groups focused on means to improve (i) student satisfaction and (ii) student-instructor interactions.
- Design of rubrics to assign points to student design artifacts and presentations

SEIRI Evaluation Strategies

- Quantitative: A pre and post self-report survey design used to test two hypotheses
- Triangulation: A thematic merging of data where quantitative findings inform qualitative data collection and analysis
- Qualitative: Multiple interviews used to help explain quantitative findings and further adding nuance to the research questions

What should you do with your findings?



Adapted from Booth, W. C., Colomb, G. G., and Williams, J. M. (2008). *The Craft of Research* (3rd ed.). Chicago, IL: University of Chicago Press.

Developing an Assessment/Evaluation Plan

Audience Question:

Please describe a **course objective**.

We will envision possibilities for or questions we will need to address to assess/evaluate the said objective.



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Thank you! Questions?

Check out our resources at:

<https://seiri.iupui.edu/resources/index.html>

Slides available at:

https://seiri.iupui.edu/doc/CTL_Webinar_final.pdf

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