Measuring Program Efficacy

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1

Objectives

- Introduce concepts within program evaluation and measuring effectiveness
- Provide a one-stop resource of myriad options in developing program evaluations
- Faculty will develop an evaluation process for the Tablet Initiative

Agenda

- Program Evaluation Cycle
- Evaluation Models
- Research Design Methods
- Setting Targets & Outcomes
- Developing Rubrics

Program Evaluation Cycle
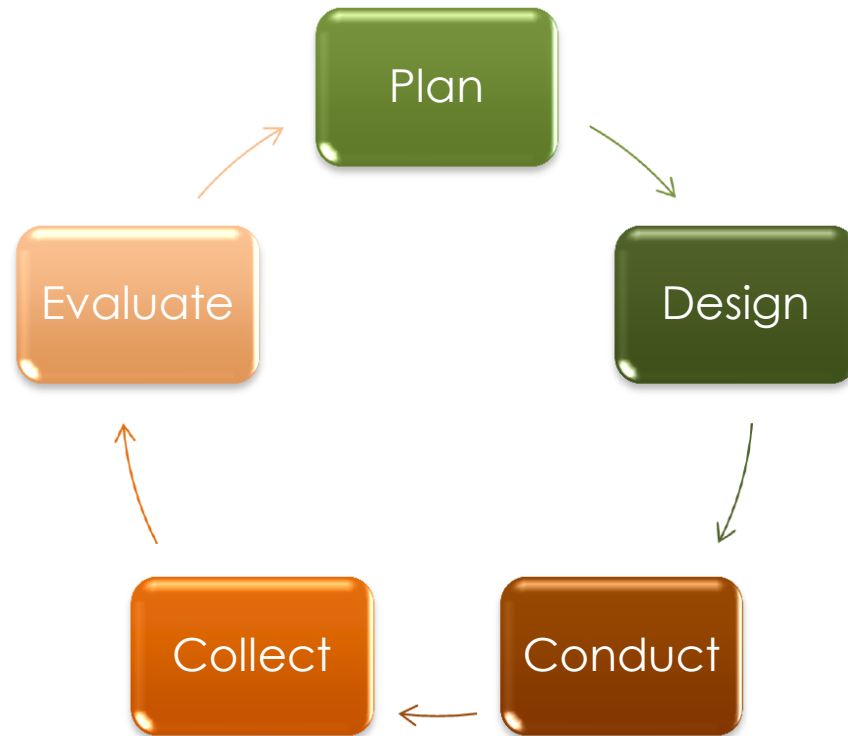
Framework for Evidence

- What do you plan to assess?
- What population? (i.e., who gets assessed?)
- What instruments/data will you use?
- When will data collection occur?
- How often will assessment occur?
- How will evidence be analyzed?
- How will evidence be documented?
- Who will reflect on the findings? When?

Evaluation Models

- Objectives-Oriented
- Consumer-Oriented
- User-Oriented
- CIPP (Context, Input, Process, Product)

Objectives-Oriented

- Focuses on behavioral objectives
- Determines extent to which goals and objectives have been achieved
- Has common-sense appeal/simplicity
- Has narrow focus, only including objectives identified

Consumer-Oriented

- Determines the relative value of program
- Used for educational curricula or packages
- Often includes achievement of objectives (intended, unintended, cognitive, non-cognitive) and costs
- Relies on credibility and expertise of evaluator (this is critical)
- Produces limited information on improving services

User-Oriented

- Emphasizes utility: what information is most helpful to stakeholders?
- Engages stakeholders so information is used in:
  - Framing evaluation
  - Previewing results and participating in the interpretation
- Other major elements include:
  - Rapport-building
  - Understanding contextual factors
  - Organizational structure and function
  - Accessibility and timing of results

CIPP

- Emphasizes improving programs at multiple stages and collecting summative information:
  - Context: What needs to be done?
  - Input: How should it be done?
  - Process: Is it being done?
  - Product: Did it succeed?
- Engages stakeholders
- Constant evaluation

Discussion

Objectives-Oriented

Consumer-Oriented

User-Oriented

Context-Input-Process-Product

Basic Research Designs

- Pre/Post Assessment
  - Conduct Pre-Assessment
  - Intervention is Administered
  - Conduct Post-Assessment
  - After doing something, was there change from pre-to-post?

Pre — **Intervention** — **Post**

Basic Research Designs

- Pre/Pre/Post Assessment
  - Conduct Pre-Assessment
  - Intervention is Administered
  - Re-Administer Pre-Assessment
  - Conduct Post-Assessment
  - Did perception from Pre1-to-Pre2 change? Pre1, Pre2 to Post?

Pre1 —— **Intervention** —— **Pre2** **Post**

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Basic Research Designs

- Post Assessment Only
  - Set Anticipated Criteria (No Pre-Assessment)
  - Intervention is Administered
  - Conduct Post-Assessment
  - After intervention, did population achieve pre-set criteria?

Criteria — **Intervention** — **Post**

Basic Research Designs

- Cohort Tracking
  - Identify Cohort
  - Intervention is Administered
  - Track Over Time
  - Opportunity to measure behavior over time

Cohort Identified → **Intervention** → **Time 1** **Time 2** **Time 3** **Time 4**
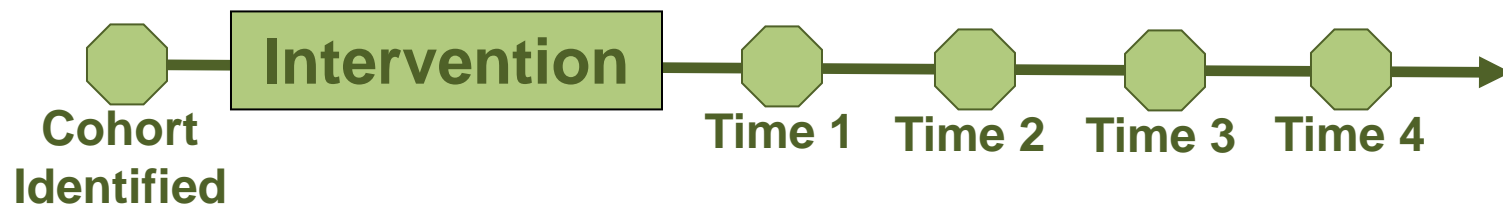
Basic Research Designs

○ Between Group Comparisons
  ○ Conduct Pre-Assessment (Both Groups)
  ○ Intervention is Administered to one Group
  ○ Conduct Post-Assessment (Both Groups)
  ○ After intervention, does treatment group differ from comparison group?

Treatment ⬡———[**Intervention**]———⬡
     Pre   **Post**

Comparison ⬡———————————————⬡

Discussion

Pre/Post Assessment

Pre/Pre/Post Assessment

Post Assessment

Cohort Tracking

Comparison Group

Setting Targets

- Important for the growth process
- Supports continuous improvement
- Provide structure for the evaluation cycle

Setting Targets

- Targets need to be:
  - meaningful, achievable, and challenging
  - beneficial to students and improve student learning
  - inclusive of both quantitative and qualitative data
  - accountable to evaluators, participants, and public

Levels of Outcomes

- Reaction to curriculum and training process
- Knowledge or skill acquisition (learning)
- Behavior change
- Improvement in individual or organizational outcomes (results)

Discussion

Reaction Targets:

Learning Targets:

Affective Targets:

Outcome Targets:

Rubrics

- Explicit scheme for classifying products or behaviors into categories that vary along a continuum
- Anything can be classified:
  - Essays
  - Reports
  - Oral Presentations
  - Performance (e.g., art work, recitals, simulations)
  - Portfolios
  - Group Activities

Rubrics

- Strengths of a Rubric:
  - Content experts can develop precise definitions
  - Complex products and behaviors can be examined more efficiently
  - Usually results in less subjective measurement
- Weaknesses of a Rubric:
  - Sometimes difficult to achieve consensus on classification categories
  - Consistency in application and use
  - Time to develop, review, and modify rubrics

Rubrics

- Judgments can be:
  - Made by faculty and staff
  - Self-assessed by students
  - Made by qualified external reviewers
- Two main types of rubrics:
  - Holistic: one global score for a product or behavior
  - Analytical: separate holistic scoring of specified characteristics of a product or behavior

Rubrics

- Identify what you want to assess
- Identify characteristics that define:
  - "proficient" or "acceptable" outcomes
  - best possible (e.g., advanced, excellent, superior, etc.) outcomes
  - worst possible (e.g., beginner, poor, unacceptable, etc.) outcomes
  - intermediate level (e.g., below proficient, fair, etc.) outcomes

Rubrics

- Review and expand/collapse categories as applicable
- Seek external review/feedback

Discussion

Rubric	1	2	3	4
Measurement 1				
Measurement 2				
Measurement 3				
Measurement 4				
Measurement 5				

Evaluation

- Engage stakeholders & listen to their needs
- Discuss framework, purpose, and use
  - Improve program
  - Accountability
  - Advocacy
- Evaluation deliverables
  - Accessible
  - Timely

Program Evaluation Cycle