Evaluation Designs

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Learning objectives

By the end of this presentation, you will be able to:

- Explain evaluation design
- Describe the differences between types of evaluation designs
- Identify the key elements of each type of evaluation design
- Understand the key considerations in selecting a design for conducting an evaluation of your AmeriCorps program

What is evaluation design?

- Evaluation design is the structure that provides the information needed to answer each of your evaluation questions.
- Your intended evaluation design should be based on and aligned with the following:
  - Your program's theory of change and logic model
  - Primary purpose of the evaluation and key research questions
  - Resources available for the evaluation
  - Funder's evaluation requirements

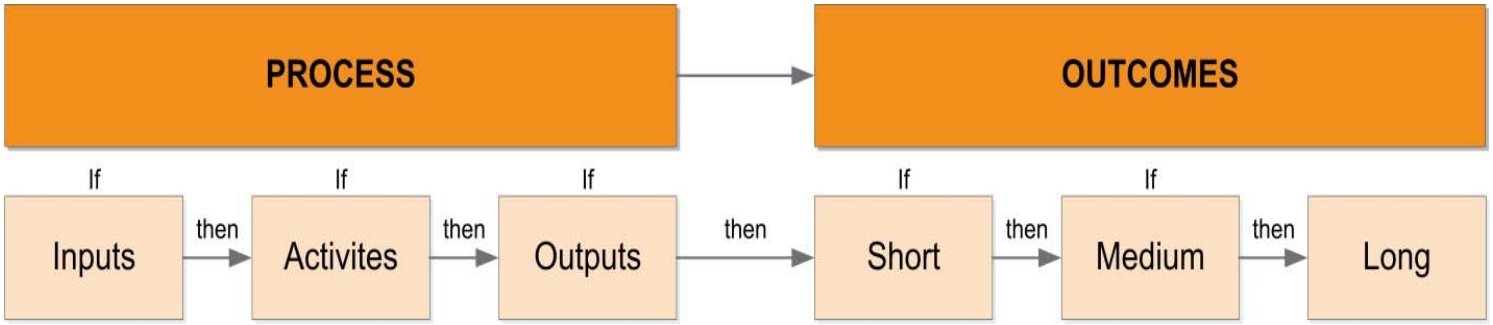
Evaluation designs and CNCS requirements

Evaluation Study Designs	Meet Requirements	
	Large Grantees	Small Grantees/ EAP Programs
Process Design (Non-Experimental Design Studies)	**No**	**Yes**
Outcome Design (Non-Experimental Design Studies)	**No**	**Yes**
Outcome (Impact) Design (Quasi-Experimental* or Experimental Design Studies)	**Yes**	**Yes**

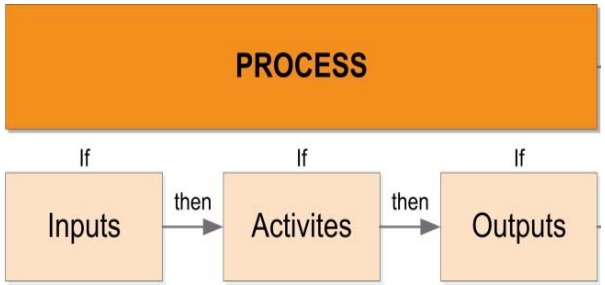
Fulfills CNCS evaluation design requirement for large, recompeting grantees if a reasonable comparison group is identified and appropriate matching/propensity scoring is used in the analysis.

Basic types of evaluation designs

The two “sides” of a program’s logic model align with the two types of evaluation designs: Process and Outcome.



Process evaluation



Goals:

- Documents what the program is doing
- Documents to what extent and how consistently the program has been implemented as intended
- Informs changes or improvements in the program's operations

Common features:

- Does not require a comparison group
- Includes qualitative and quantitative data collection
- Does not require advanced statistical methods

Process evaluation designs

Common methods include:

- Review of program documents and records
- Review of administrative data
- Interviews, focus group
- Direct observation

Types of analysis:

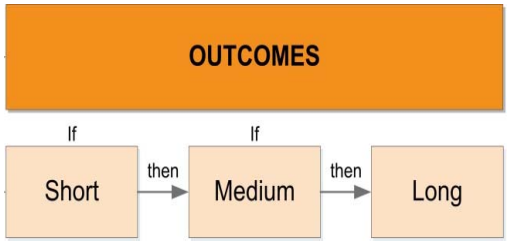
- Thematic identification
- Confirmation of findings across sources (triangulation)

Facilitated example: Process evaluation

Evaluation Design Crosswalk: Process Evaluation				
Research question	**Evaluation design**	**Methods**	**Data to be collected, when, and by whom**	**Analysis plan**
What kinds of clients are seeking financial education services?	Process evaluation	• Client interviews (25) • Document review: client intake forms, member activity logs	• Evaluator will conduct interviews when clients begin program • Documents reviewed quarterly	• Thematic analysis on interview transcripts using NVivo • Coding and thematic analysis
How are clients accessing the program?		• Client interviews (same as above) • Partner focus groups (4)	• (Same interview as above) • Evaluator will hold focus groups quarterly	• (Same as above) • Thematic analysis on transcripts using NVivo

Outcome evaluation

Goals:



- Identifies the results or effects of a program
- Measures program beneficiaries' changes in knowledge, attitude(s), and/or behavior(s) that result from a program

Common Features:

- Typically requires quantitative data
- Often requires advanced statistical methods
- May include a comparison group (impact evaluation)

What is a comparison or control group?

- A group of individuals not participating in the program or receiving the intervention
- Necessary to determine if the program, rather than some other factor, is causing observed changes
- “Comparison group” is associated with a quasi-experimental design and “control group” is associated with an experimental design

Outcome evaluation designs

Type of Outcome Evaluation Design	Control or Comparison	Ability to produce causal evidence about a program
Experimental Design	Randomly assigned intervention and control groups	
Quasi-Experimental Design	Statistically matched intervention and comparison groups	
Non-Experimental Design	Not statistically matched groups or group compared to itself	

Non-experimental designs

- Outcomes are only tracked for the intervention group
- There are several variations within the category of non-experimental outcome designs, differing only in number and timing of outcome measurement points:
  a) Single group post-test
  b) Single group pre- and post-test

Intervention Group

	Pre-test	Treatment	Post-test
a) Single group post-test		X	0
b) Single group pre- and post-test	0	X	0

X = intervention is administered
0 = measurement is taken

Quasi-experimental designs

- Defined by collecting data on two or more study groups – an intervention group and a comparison group
- The intervention and comparison groups are identified from pre-existing or self-selected groups and are <u>not formed through a random assignment process</u>

	Pre-test	Treatment	Post-test
Intervention Group	0	X	0
Comparison Group	0		0

X = intervention is administered
0 = measurement is taken

- Pre-existing differences between the intervention and comparison groups at the outset of the intervention may lead to inaccurate estimates of the program's effects

Types of quasi-experimental designs

- Regression discontinuity
- Differences-in-differences
- Comparative interrupted time series
- Pre/post-test with matched comparison group
  - Group constructed using:
    - Propensity score matching
    - Case matching
    - Instrumental variable

Experimental designs

- Defined by collecting data on two or more study groups – an intervention group and a control group
- Random assignment techniques (e.g., lottery draw) are used by the evaluator to assign study participants to either the intervention or the control group

	Pre-test	Treatment	Post-test
Intervention Group ***Randomly assigned***	0	X	0
Control Group ***Randomly assigned***	0		0

X = intervention is administered
0 = measurement is taken

- Random assignment ensures the study groups are equivalent prior to intervention, thus are often considered the most credible design to show impact

Facilitated example: Outcome evaluation

Evaluation Design Crosswalk: Outcome Evaluation				
Research question	**Evaluation design**	**Methods**	**Data to be collected, when, and by whom**	**Analysis plan**
Do clients exit the program with increased knowledge of personal finance concepts relevant to their needs?	Outcome evaluation	Randomized control trial- clients will be randomly assigned to treatment at time of application to program Control group individuals deferred for 6 months, then eligible to participate in program	• Client and control group knowledge of personal finance concepts • Pre-test: during application; post-test: for treatment group, upon completion of program. For control group, at 6 months post-deferment • Collected by evaluator via paper and pencil and online survey	• Statistical analysis- descriptive statistics; between groups T-test using STATA software

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Questions?