EVALUATION: AN INTRODUCTION

Social Science Research Institute (SSRI)
Education and Human Development Incubator (EHDi)

Presenters: Jessica Sperling, PhD
Megan Gray, MSW
Session Overview

This session discusses basic **principles in** and **components to** evaluation.

**Part I. Evaluation: An Overview**

1. What is evaluation?
2. Why do evaluation?
3. When do evaluation?

**Part II. Developing an evaluation**

4. Mapping the program model
5. Evaluation questions
6. Data & design
7. Tips & considerations
Introductions!

- Name
- Why you’re here
- Previous experience with evaluation, if any
What is evaluation?
What is evaluation?

Evaluation is...

the systematic investigation of the merit (quality), worth (value) or significance (importance) of a program

(Scriven, 1999)
Types of evaluation

Formative
- To maximize the chance for program success before it begins or in its early stages
- E.g.: needs assessment, developmental evaluation

Process/implementation
- Better understand how a program is implemented
- Identify challenges/successes in implementation

Outcome/impact
- How/whether a program achieves short-term results
- Potentially assess longer-term impact, if feasible
What is evaluation?

## Key Differences

<table>
<thead>
<tr>
<th>Versus Research</th>
<th>Versus Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research</strong> produces generalizable knowledge</td>
<td><strong>Assessment</strong> provides evidence; a process for determining “what is”</td>
</tr>
<tr>
<td><strong>Evaluation</strong> produces knowledge intended for use</td>
<td><strong>Evaluation</strong> uses information based on the credible evidence to make judgments or conclusions</td>
</tr>
</tbody>
</table>

## Connections

- Evaluation uses research methodologies to answer key questions
- Evaluation and research can inform one another
- Assessment can be a part of evaluation
Why do evaluation?
Why do evaluation?

- To **gain insight** about a program and its operations.

- To **improve practice** – to modify or adapt practice to enhance the success of activities.

- To **assess effects** – to see whether a program is meeting objectives and goals and to provide evidence of effectiveness.

...and/or, for funders!
Continuous improvement
When do evaluation?
When to do evaluation?

At all stages!

**Before** → Formative, developmental (e.g., needs assessment)

**During** → Process/implementation evaluation

**After** → Outcome evaluation
How do I design an evaluation?
Evaluation design: Introduction

**Evaluation design:** the *structure* that *provides information* to answer questions you have about your program.

Evaluation design means thinking about:

- Why conduct an evaluation
- What to measure
- Who to include in the evaluation (e.g. all beneficiaries or a sample)
- What methods will be used to collect data
The appropriate design will largely depend upon:

- **Purpose**: What do you want to know?
- **Audience**: Who are the interested stakeholders?
- **Timeline**: Is there a date by which you need results?
- **Feasibility**: What resources and/or staffing are available?
What are core steps in evaluation design?

1. Program model mapping
2. Evaluation questions
3. Data & design
What do we do, and what do we hope to do?

1. Program model mapping
2. Evaluation questions
3. Data & design
Logic model: What and why

What is a logic model?
• Narrative or graphical depiction of process
• Indicates cause and effect relationships

Why do a logic model?

For evaluation purposes
• To ensure you understand your program
• To ensure you are assessing the right outcomes

For other program purposes
• Program planning & consensus building
• Program management
• Communication/fundraising
Logic model: Key questions

• What is the current situation that you intend to impact?

• What will it look like when you achieve the desired situation or outcome?

• What behaviors need to change for that outcome to be achieved?
Logic Model: Components

Process

- Inputs
- Activities
- Outputs

What you invest (resources)
What you do
Direct products from program activities

Outcome

- Short-term Outcomes
- Medium-term Outcomes
- Long-term Outcomes

Changes in knowledge, skills, attitudes, opinions
Changes in behavior or action
Meaningful change/impact
**Duke TeachHouse Program Model**

*Mission:* Provide a living and learning environment that cultivates early career teachers as innovative leaders and change agents in K-12 education.

**Situation:** Nearly 50% of early career teachers leave the classroom within the first five years of their career. Duke TeachHouse will offer new and innovative programming to recruit, support, and retain highly qualified early career teachers in K-12 schools.

**Assumptions:** A living and learning environment will support peer mentoring within the house; peer mentoring within the house will facilitate a deeper understanding of the teaching and learning process.

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Proximal Outcomes</th>
<th>Distal Outcomes</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships (business, community, school)</td>
<td>Peer mentorship</td>
<td>Participants increase confidence in teaching role/ responsibilities</td>
<td>Participants are leaders in education</td>
<td>Improved K-12 student learning</td>
</tr>
<tr>
<td>Housing</td>
<td>Interaction/meetings with community and education leaders</td>
<td>Participants become better equipped to persevere amid challenges</td>
<td>Improved educator retention for participants</td>
<td></td>
</tr>
<tr>
<td>Program leadership/staff</td>
<td>Reflective sessions with program leadership</td>
<td>Participants develop leadership skills</td>
<td>Improved innovation in teaching/educational programming</td>
<td></td>
</tr>
<tr>
<td>Experienced teacher fellows (program participants &amp; mentors)</td>
<td>Innovation projects</td>
<td>Participants improve knowledge and skills as educators</td>
<td>Increased innovation in teaching/educational programming</td>
<td></td>
</tr>
<tr>
<td>First-year teacher fellows (program participants) from Duke education program</td>
<td>Teacher resiliency program</td>
<td>Participants develop identities as education innovators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding for program activities</td>
<td>Personal development plan/program</td>
<td>Participants develop/strengthen professional relationships and networks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inputs**
- Partnerships (business, community, school)
- Housing
- Program leadership/staff
- Experienced teacher fellows (program participants & mentors)
- First-year teacher fellows (program participants) from Duke education program
- Funding for program activities

**Activities**
- Peer mentorship
- Interaction/meetings with community and education leaders
- Reflective sessions with program leadership
- Innovation projects
- Teacher resiliency program
- Personal development plan/program

**Proximal Outcomes**
- Participants increase confidence in teaching role/responsibilities
- Participants become better equipped to persevere amid challenges
- Participants develop leadership skills
- Participants improve knowledge and skills as educators
- Participants develop identities as education innovators
- Participants develop/strengthen professional relationships and networks

**Distal Outcomes**
- Participants are leaders in education
- Improved educator retention for participants
- Increased innovation in teaching/educational programming
RESOURCES

- Kids for a safer
  MARRIAGE
  (club name)

OUR community

YARD SALE

CAR WASH

BAKE SALE

ACTIVITIES

- CARNIVAL

RESULT

RESULT

SHORT-TERM OUTCOME

- PLAYGROUP EQUIPMENT for our park

GOAL

- SAFE PLACE for kids to play

$1500.00

BY Courtney

Peters

2005
## Sample Program: Elementary literacy tutoring

### Program structure
- After-school literacy program for elementary school children
- 3 dedicated staff
- Volunteer tutors and students meet one-on-one, 2x/week, 45 minutes per session

### Participants
- 2nd and 3rd graders
- Below grade level in reading assessment at the program start
- 50 participants per year
- Eligible students are admitted by lottery

### Tutors
- Undergraduate volunteers
- Trained in a 3-day training session in August
- Provided with year-long curriculum that supports the in-school curriculum
**Logic Model: Example for an elementary school literacy tutoring program**

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>OUTPUTS</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Direct products from program activities</td>
<td>Changes in knowledge, skills, attitudes, opinions</td>
</tr>
<tr>
<td>What we invest</td>
<td>What we do</td>
<td></td>
<td>Short-Term</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Duke EDUCATION & HUMAN DEVELOPMENT Incubator at the Social Science Research Institute
# Logic Model: Example for an elementary school literacy tutoring program

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>OUTPUTS</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What we invest</td>
<td>What we do</td>
<td>Direct products from program activities</td>
</tr>
<tr>
<td></td>
<td>Short-Term</td>
<td>Changes in knowledge, skills, attitudes, opinions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium-Term</td>
<td>Changes in behavior or action that result from participants' new knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long-Term</td>
<td>Meaningful changes, often in their condition or status in life</td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>One-on-one tutoring to students below benchmark</td>
<td>Number of students receiving tutoring assistance</td>
<td>Increase in number of students scoring at or above benchmark on literacy assessments</td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td></td>
<td>Improved student self-efficacy</td>
</tr>
<tr>
<td>Volunteers</td>
<td></td>
<td></td>
<td>Increase in number of students performing on grade-level in reading</td>
</tr>
<tr>
<td>Meeting</td>
<td></td>
<td></td>
<td>Students maintain grade-level proficiency in reading</td>
</tr>
<tr>
<td>Space</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inputs:** Funding, Staff, Volunteers, Meeting Space

**Activities:**
- One-on-one tutoring to students below benchmark
- Number of students receiving tutoring assistance
- Increase in number of students scoring at or above benchmark on literacy assessments
- Improved student self-efficacy
- Increase in number of students performing on grade-level in reading
- Students maintain grade-level proficiency in reading
What do I want to know?

1. Mapping the program model
2. Evaluation questions
3. Data & design
Evaluation question(s)

• Specify the specific question(s) you’re looking to answer

• Key considerations:
  
  *Why* is the evaluation being done?

  *What* do you want to learn?

  *How* will the results be used? By whom?
Evaluation question(s): Focus
Evaluation question(s): The question

- Are resources adequate to implement program?
- Are activities delivered as intended?
- How many, how much was produced?
- Change in knowledge, attitudes, skills?
- Change in behavior, procedures, practice policies?
- Change in social, economic, health, environmental condition?
Evaluation question(s): Indicators

Process:
- Inputs
- Activities
- Outputs

Outcome:
- Short-term Outcomes
- Medium-term Outcomes
- Long-term Outcomes

Evaluation Questions:
- Are resources adequate to implement program?
- Are activities delivered as intended?
- How many, how much was produced?
- Change in knowledge, attitudes, skills?
- Change in behavior, procedures, practice policies?
- Change in social, economic, health, environmental condition?

What will be measured? What data are available for evaluation?
How can I answer my question?

1. Mapping the program model
2. Evaluation questions
3. Data & design
Evaluation design: Overview

1. Process Evaluation
2. Outcome Evaluation
Process evaluation: Overview

- 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

(Duke University at the Social Science Research Institute)
Process evaluation: Example questions

- Is the program being implemented as planned?
  - Is the program being implemented the same way at each site?

- Are there any components of the program that are not working well? Why or why not?

- Are the resources adequate for the successful implementation of the program?

- Are program beneficiaries generally satisfied with the program? Why or why not?
Data types & sources

What **types of data** could I collect?

**Quantitative**
1. Administrative data
2. Surveys

**Qualitative**
1. Interviews
2. Focus groups
3. (Ethnographic) observation

What are possible **data sources**?
1. Program administration/administrators
2. Program participants
3. Informed observers (e.g., parents)
Process evaluation: Example crosswalk

Let’s try a process evaluation crosswalk!
# Sample Program: Elementary literacy tutoring

## Program structure

- After-school literacy program for elementary school children
- 3 dedicated staff
- Volunteer tutors and students meet one-on-one, 2x/week, 45 minutes per session

## Participants

- 2nd and 3rd graders
- Below grade level in reading assessment at the program start
- 50 participants per year
- Eligible students are admitted by lottery

## Tutors

- Undergraduate volunteers
- Trained in a 3-day training session in August
- Provided with year-long curriculum that supports the in-school curriculum
### Crosswalk for Process Evaluation of a Literacy Program

<table>
<thead>
<tr>
<th>Research question</th>
<th>Indicators</th>
<th>From whom / data sources?</th>
<th>When collected and by whom?</th>
<th>How will you analyze the data?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the literacy program being implemented as designed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outcome evaluation: Overview

- 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
- Typically utilizes comparative element
Outcome evaluation: Example questions

- Did the program change beneficiaries’ knowledge, attitude, behavior, or condition?
- Did all types of program beneficiaries benefit from the program or only specific subgroups?
- Are there differences in outcomes for program beneficiaries compared to those not in the program?
Data types & sources

What types of data could I collect?

Quantitative
  1. Administrative data
  2. Surveys

Qualitative
  1. Interviews
  2. Focus groups
  3. (Ethnographic) observation

What are possible data sources?

1. Program administration/administrators
2. Program participants
3. Informed observers (e.g., parents)
Comparative perspective

Why?

How?

• Participant pre/post
• Comparison/control group
Comparative perspective: Participant Focus

Participant pre/post
Focus on program participants
Data speaks to change before and after participation

1. Single group post design
Retrospective: examines program beneficiaries after they receive program services

2. Single group pre-post design
Comparison of program beneficiaries before and after they receive program services
Comparative perspective: Participant Focus

Comparison/control group

Uses a group of individuals *not participating* in the program

Demonstrates if the program, rather than some other factor, is causing observed changes

1. Quasi-experimental design (QED)

Comparison with group similar to program participants (e.g., similar participants from another program, extra applicants, etc.)

2. Experimental design (Randomized Controlled Trial - RCT)

Randomly assign new eligible applicants to either receive intervention/program or alternative/no services (control group)
## Evaluation crosswalk

### Crosswalk for Process Evaluation of a Literacy Program

<table>
<thead>
<tr>
<th>Research question</th>
<th>Indicators</th>
<th>From whom / data sources?</th>
<th>When collected and by whom?</th>
<th>How will you analyze the data?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the literacy program being implemented as designed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How can actually execute my plan?

Implementation tips & considerations
Data collection

- Consider what data you already have (e.g., intake/admin data)
- Take advantage of clear data collection opportunities
- Make data partnerships where possible

Priority: Make sure the data addresses your evaluation question!
Reporting

- Visuals are helpful: charts, graphs, etc.
- Can be full/final report, but can also be smaller memos, charts/tables, etc.
- Specify main findings and/or key take-aways

Priority: Reporting should be useful for the intended purpose!
## Internal v. external evaluation

**Internal**
- Less obvious/outright expense
- Deeper knowledge of context
- Can (should) be integrated into regular program activities

**External**
- Specialized knowledge
- Saves staff time
- More confidence in validity of results (less conflict of interest)
- Distance from context

**Priority:** Consider both short- and long-term factors!
Enhance feasibility

• Help others understand why and how this matters; why and how this improves program processes, grant-seeking and reporting, etc.

Build buy-in and a culture of evaluation

• Include evaluation in program budgets (10-20% of budget)
• Includes framing goals/objectives, data collection, analysis & reflection.
• Note where you’re already doing this, even if not formalized as eval.

Integrate into program operations and processes

• Especially in the absence of an evaluation/data position, there is no need for one staff member to take this all on himself/herself.
• Be strategic in where you can use time and resources most effectively

Divide responsibilities and set priorities
What next?
Possible Next Steps

• Consider your evaluation priorities, needs, and capacities

• Start engaging in the activities we’ve covered for your program

• For further guidance:
  • Look into other SSRI methods workshops (survey design, etc)
  • Indicate what else you want to know on the workshop evaluation form; we are considering developing further evaluation workshops
  • Reach out to EHDi
  • Look into other resources available online...
Select online evaluation resources

American Evaluation Association
- http://www.eval.org

The Evaluation Center
- http://www.wmich.edu/evalctr/

Innovation Network
- http://www.innonet.org

Digital Resources for Evaluators
- http://www.resources4evaluators.info/CommunitiesOfEvaluators.html

CNCS’s Knowledge Network
- https://www.nationalserviceresources.gov/evaluation-americorps

...and more
Questions/discussion
Thank you!

Jessica Sperling, PhD
Jessica.sperling@duke.edu

Megan Gray, MSW
Megan.gray@duke.edu