Introduction to Program Evaluation:

A Workshop for School Administrators

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Welcome!

- Presenter Introduction
- Workshop Goals
  - Gain Knowledge of Program Evaluation
  - Increase Understanding of Educational Applications
  - Gain Hands-on Experience w/Logic Models
  - Increase Confidence to Conduct/Supervise an Evaluation at your school
- Agenda
What is Program Evaluation?

Definition(s)

- Program evaluation is defined as “a systemic process that is designed to determine the quality and effectiveness of a particular program” (Yap et al, 2000, p. 1).

- It is a versatile tool that can be used to examine the outcomes of an entire program or to provide a detailed look at one specific program element.

Origins of Program Evaluation

- Evaluation was “born” in the 1890s in China
  - Government officials
  - Civil service exams for government workers

- Early methods borrowed heavily from psychometrics
  - Especially intelligence testing
  - And related assessments
Program Evaluation

- Uniquely American
- Developed in U.S. in mid-20th century
- President Johnson created numerous social and educational programs to equalize racial and class inequities
  - Medical care
  - Education
  - Transportation
Program Evaluation in Education

- **History and Overview**
  - Earliest educational evaluation
    - Boston, 1845
    - Printed tests used to measure student learning
  - Joseph Rice, late 1800’s
    - Education reformer
    - First formal educational program evaluation
    - Comparative evaluation of spelling instruction across a number of school districts
Program Evaluation in Education

- **Ralph Tyler**
  - Eight Year Study, 1932 - 1940
  - 30 high schools, 300 universities
  - Goal: Improve education

- **Revised ESEA, 1964**
  - “Birth of contemporary program evaluation”
  - Evaluation being conducted relied heavily on Tyler’s Objectives-oriented approach
  - Led to development of CIPP model (Stufflebeam)
Program Evaluation in Education

- Evaluation emerges as profession, 1970s
  - Publication of industry journals
    - *Educational Evaluation and Policy Analysis*
    - *Studies in Educational Evaluation*
    - *Evaluation and Program Planning*
  - Major universities establish courses in evaluation methodology
    - UCLA
    - Stanford
    - University of Illinois
Program Evaluation in Education

- Two recent trends:
  - Increased use by educators – alternative ways to assess student performance
  - Increased pressure on schools to evaluate individual programs

- Applications
  - Student programs
  - Teacher PD
Overview of Evaluation Models

- Researchers have documented more than 22 different approaches to program evaluation

- Evaluation Models
  - We’ll look at 5 models
  - Comprehensive

- Logic Models
  - Not an evaluation model, but a useful tool

- Tyler
  - Objectives-oriented

- Kirkpatrick
  - 4 Level Model

- Stufflebeam
  - CIPP Model

- Scriven
  - Goals-free
  - Summative vs. Formative

- Eisner
  - Expert-oriented
Ralph Tyler

- Former Teacher
- Researcher in Education
  - 1930s & 1940s
  - Research interest: Curriculum & Instruction
  - Said measuring student learning was important in determining the ultimate success or failure of curricular/instructional strategies
- Coined the term “evaluation”
Objectives-Oriented Approach

- “Evaluation” refers to assessment and testing tied directly to learning objectives
- Used the results of learning assessments to revise/refine curriculum and instruction
Donald Kirkpatrick

- Working on doctoral dissertation at University of Wisconsin in 1954
- Research interest – to find a reliable method of assessing training and PD sessions
4-Level Model

- Defines four levels to consider in any evaluation
  - Reaction: How the learner reacts to the learning process
  - Learning: Extent to which learners acquire intended knowledge, skills, attitudes, confidence, & commitment
  - Behavior: Extent to which learners apply what they learned
  - Results: Degree to which target outcomes are a result of training & reinforcement

Daniel Stufflebeam

- Began his career working in evaluation
- Directed the development of more than 100 standardized tests; including GED

- Already working in the field when Elementary and Secondary Education Act (ESEA) was revised in 1964
  - ESEA mandated routine evaluation of educational programs
CIPP Model

- Model was developed in direct response to ESEA revision
  - Four areas of inquiry
    - Context: *What* needs to be done?
    - Input: *How* will it be done?
    - Process: *Is it* being done?
    - Product: *Is it succeeding?*

(Stufflebeam, 2003, The CIPP model for evaluation. Downloaded from http://www.wmich.edu/evalctr)
Michael Scriven

- Degree in mathematics
- Research interest: psychology

- When Sputnik went into orbit in 1957, U.S. government set out to improve STEM education
  - Scriven was recruited to Social Science Education Consortium
Goals-Free Approach

- Concerned about “over-reliance” on Tyler’s objectives-oriented approach
  - Excluded unintended or accidental outcomes
  - Might be important clues to direction of evaluation
  - Might lead to program changes/improvements
Summative vs. Formative

- Introduce terms to describe two types of Evaluation
  - **Formative**: Monitoring of activities and strategies during development and implementation phases; provide feedback about possible revisions to improve program quality and effectiveness
  - **Summative**: Evaluation of final program results to determine if it has accomplished what it intended

Elliot Eisner

- Stanford professor in 1970s
  - Art
  - Education

- Seeking qualitative evaluation model as alternative to quantitative approaches
Expert-Oriented Approach

- Most quantitative models measured *content-specific* outcomes

- Eisner felt there were *student-specific* outcomes
  - Influenced by background, interests, race, social status, among others

- Adapted elements of art critique
  - Critical observation skills
  - Language skills to describe what is observed in a way that allows others to understand what they cannot see on their own
Questions/Comments???

LEARNING REVIEW
What is a Logic Model?

- A framework that can be used to plan, implement, and conduct a program evaluation

- **Definition**: “a systemic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve” (2004, p. 1)

Logic Model History & Development

- Joseph Wholey uses term “logic model” in a 1987 publication
- Logic models used increasingly in evaluation
  - Planning
  - Implementation
- “Provides a road map of your program, highlighting how it is expected to work, what activities need to come before others, and how desired outcomes are achieved (1998, p.35)

Three Types of Logic Models

- **Theory approach** – uses a logic model to detail the theory of change behind program design & plan
  - How & Why program will work

- **A theory model:**
  - Links theoretical constructs together to explain the underlying assumptions of the program.
  - Best for complex, multi-faceted initiatives aimed at impacting multiple target populations
Three Types of Logic Models

**Outcomes approach** – concerned with elements of planning and how they will lead to intended outcomes

**An outcomes model:**
- Displays the interrelationships of goals and objectives.
- Emphasis on short-term objectives as a way to achieve long-term goals.
- Makes the connections between short-term, intermediate, and long-term outcomes.
- Best for evaluating program initiatives aimed at achieving longer-term or intangible, hard-to-measure outcomes
Three Types of Logic Models

- **Activities approach** – pays detailed attention to specifics of implementation

- An activities model:
  - Sequentially links activities together to indicate the process of program implementation.
  - Gives each stakeholder a big picture of how the activities and processes pull together a cohesive hole to achieve desired outcomes.
  - Best for complex initiatives with many layers of activities and inter-institutional partnerships.
Using a Logic Model

• Getting Hands-on
  ◦ Small group exercise
    • Divide into groups
    • Decide as a group – one program to use during completion of exercise

• Components of a Logic Model:
  ◦ Inputs, Activities, Outputs, Outcomes, Impact
Components of a Logic Model

- **Inputs** — available human, financial, organizational, & community resources used in or that influence the program

- **Activities** — processes, tools, events, technology, & actions intentionally used in program implementation.
  - What a program hopes will lead to intended results
    - Conducting an activity is NOT same as achieving results from accomplishment of the activity
    - Activity data are not outcomes
Components of a Logic Model

- **Outputs** — direct products of program activities

- **Outcomes** — specific changes in participants’ behavior, knowledge, skills, status, & level of functioning
  - Short term = 1-3 years; Long term = 4-6 years
  - When developing outcomes, consider:
    - Who/What
    - Change/desired effect
    - In what
    - By when

- **Impact** — intended or unintended change that occurs in organization, systems, communities as a result of program activities in a certain time period
### Example: Logic Model

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>The human, financial, organizational, and community resources available.</td>
<td>What a program does with its resources.</td>
<td>The direct products of program activities.</td>
<td>The specific changes in program participants’ behavior, knowledge, skills, status and level of functioning.</td>
<td>The fundamental intended or unintended change occurring in organizations, communities or systems as a result of program activities within a specified timeframe.</td>
</tr>
<tr>
<td></td>
<td>The processes, tools, events, technology, and actions that are the intentional part of the program implementation.</td>
<td>May include types, levels, and targets of services delivered by the program.</td>
<td>Short-term: (usually 1-3 years) Long-term: (usually 4-6 years).</td>
<td></td>
</tr>
</tbody>
</table>
Worksheet: Logic Model

Inputs
Activities
Outputs
Outcomes
Impact
Questions/Comments???

SUMMARY/WRAP-UP
THANK YOU!
References

- Stufflebeam, 2003, The CIPP model for evaluation. Downloaded from http://www.wmich.edu/evalctr


