EXPERIMENTAL DESIGN: EVALUATION

EVALUATION RESEARCH

WHAT IS EVALUATION?

" the systematic investigation of the merit, worth, or significance of an 'object' "

Michael Scriven

"…the systematic assessment of the operation and/or outcomes of a program or policy, compared to a set of explicit or implicit standards as a means of contributing to the improvement of the program or policy…"

Weiss Carol

" A systematic way to determine the "value" of a program, program components, or activity."

Unknown XXX

"Research seeks to prove, evaluation seeks to improve…"

M.Q. Patton

WHAT IS EVALUATION?

Evaluation research, sometimes called *program evaluation*, refers to a research purpose rather than a specific method.

This purpose is to evaluate the impact of social interventions such as new teaching methods, innovations in parole, and a host of others.

Evaluation research is a form of applied research—it is intended to have some real-world effect.

WHAT IS EVALUATION?

Evaluation research reflects social scientists' increasing desire to make a difference in the world.

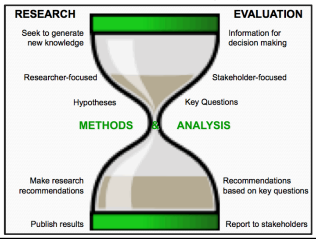
At the same time, there is the influence of an increase in federal requirements that program evaluations must accompany the implementation of new programs, and

the availability of research funds to fulfill those requirements.

THE PURPOSES OF RESEARCH

Evaluation research

- The collection and analysis of data to make decisions related to the merit or worth of a specific program
  - Merit relates to a program accomplishing what it was supposed to accomplish
  - Worth relates to the value attached to a program by those using it



THE PURPOSES OF RESEARCH

Research seeks to PROVE, evaluation seeks to IMPROVE

M.Q. Patton

Evaluation research

- Types of evaluation
  - Formative evaluation is designed to inform and improve a program while it is being developed or implemented
  - Summative evaluation is designed to make decisions regarding the overall quality of the program being evaluated

IF THE GOAL OF EVALUATION IS…

… to improve a program

Then no evaluation is good unless findings are used to make a difference

TOPICS APPROPRIATE TO EVALUATION RESEARCH

Evaluation research is appropriate whenever some social intervention occurs or is planned.

Social intervention is an action taken within a social context for the purpose of producing some intended result.

In its simplest sense, *evaluation research* is the process of determining whether a social intervention has produced the intended result.

The topics appropriate for evaluation research are limitless.

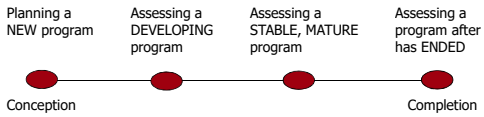
The questions appropriate for evaluation research are of great practical significance: jobs, programs, and investments as well as values and beliefs.

WHAT CAN BE EVALUATED?

- Direct service interventions
- Community mobilization efforts
- Research initiatives
- Surveillance systems
- Policy development activities
- Outbreak investigations
- Laboratory diagnostics
- Communication campaigns
- Infrastructure-building projects
- Training and educational services
- Administrative systems

– MMWR, 1999
Framework for Program Evaluation in Public Health

WHEN TO CONDUCT EVALUATION?



The stage of program development influences the reason for program evaluation.

WHY EVALUATE PROGRAMS?

- To gain insight about a program and its operations – to see where we are going and where we are coming from, and to find out what works and what doesn't
- To improve practice – to modify or adapt practice to enhance the success of activities
- To assess effects – to see how well we are meeting objectives and goals, how the program benefits the community, and to provide evidence of effectiveness
- To build capacity - increase funding, enhance skills, strengthen accountability

STEPS IN PROGRAM EVALUATION

Step 1: Engage Stakeholders
Step 2: Describe the Program
Step 3: Focus the Evaluation Design
Step 4: Gather Credible Evidence
Step 5: Justify Conclusion
Step 6: Ensure Use and Share Lessons Learned

TYPES OF EVALUATION RESEARCH DESIGNS

Evaluation research is not itself a method, but rather one application of social research methods. As such, it can involve any of several research designs. To be discussed:

1. Experimental designs
2. Quasi-experimental designs
3. Survey designs
4. Qualitative observational designs

UNDERLYING LOGIC OF 6 STEPS

No evaluation is good unless… findings are *used* to make a difference

No findings are used unless… a *market* has been created prior to creating the product

No market is created unless… the evaluation is *well-focused*, including most relevant and useful questions

TYPES OF EVALUATIONS:

2 Important Types:

1. Formative Evaluation
2. Summative Evaluation

(Trochim, 2006)

FORMATIVE EVALUATION

Purpose:

- To strengthen or improve the object being evaluated

(Trochim, 2006)

  - In other words, to provide useful feedback to for the greater good of the "object"

FORMATIVE EVALUATION

Includes several Evaluation Types

- Needs Assessment
- Evaluability Assessment
- Structured Conceptualization
- Implementation Evaluation
- Process Evaluation

(Trochim, 2006)

FORMATIVE EVALUATION

Questions generally asked:

- What is the definition and scope of the problem or issue, or what's the question?
- Where is the problem and how big or serious is it?
- How should the program or technology be delivered to address the problem?
- How well is the program or technology delivered?

(Trochim, 2006)

SUMMATIVE EVALUATION

Purpose:

- To examine the effects or outcomes of some object

(Trochim, 2006)

  - In other words, to review the results/conclusions of an "object"

SUMMATIVE EVALUATION

Can be subdivided into different categories:

- Outcome Evaluations
- Impact Evaluation
- Cost-Effectiveness and Cost-Benefit Analysis
- Secondary Analysis
- Meta-Analysis

(Trochim, 2006)

SUMMATIVE EVALUATION

Questions generally asked:

- What type of evaluation is feasible?
- What was the effectiveness of the program or technology?
- What is the net impact of the program?

(Trochim, 2006)

LIMITATIONS

Although evaluation research is modeled after the experiment—which suggests that the researchers have control over what happens—it takes place within frequently uncontrollable daily life.

Lack of control can create real dilemmas for the researchers.

SYSTEMATIC DATA COLLECTION

Recognition of the usual failure to achieve the most exacting standards of research is why evaluation decisions are based on:

multiple

triangulated

data sources

5 BASIC EVALUATION QUESTIONS

1) What will be assessed?
2) What measures/indicators will be used?
3) Who will be evaluated?
4) What data will be collected?
5) How will data be analyzed?

SOCIAL INDICATORS RESEARCH

Combining evaluation research with the analysis of existing data.

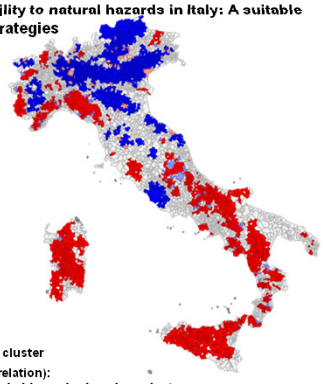
A rapidly growing field in social research involves the development and monitoring of social indicators, aggregated statistics that reflect the social condition of a society or social subgroup.

Researchers use indicators to monitor social life.

It's possible to use social indicators data for comparison across groups either at one time or across some period of time.

Often doing both sheds the most light on the subject.

Mapping social vulnerability to natural hazards in Italy: A suitable tool for risk mitigation strategies



Social Vulnerability Index LISA cluster map (Moran's I spatial autocorrelation):
In red color High-High clusters; in blue color Low-Low cluster

DISCUSS…

Presentations of the Pre-Proposal, part 1
This is formative evaluation, so provide your classmates with much feedback!