

# Designing Interventions with Evaluation in Mind

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A group of people's hands are clasped together in a circle, symbolizing teamwork and support. The image is dimly lit with a dark overlay, and the text is centered over the hands.

**What type of physical  
activity interventions  
do we do?**

# Traditional



Social Marketing Campaign



School Based Program



Group Walking Program



Worksite Wellness Program



These tend to be easier to evaluate.  
The outcomes are straightforward and  
the path linear.

# Newer

- Passing a complete streets policy
- Developing a transit plan
- Improving an intersection
- Developing an inter-sectoral task force
  
- We should be thinking about the evaluation of all of our IV at the start



# When should you start working with an evaluator?

1. After the project is over
2. Who needs evaluation?
3. Soon after the project starts
4. In the planning phase

# Why Evaluate?

- To find out if our programs are working
  - Grant funding
  - Keep your boss happy
  - To offer best program possible
  - To help define program' s goals
    - Defining and measuring success
    - Different levels of goals

# Why evaluate?

- Evaluation helps you to:
  - See whether program objectives were met
  - Document the strengths and weaknesses of the program
  - Have data for keeping good financial records
  - Improve staff member skills in planning, conducting, and evaluating activities
  - Meet grant or contract requirements
  - Promote public relations and awareness
  - Find out the extent to which a program or its components are appropriate for \_\_\_other populations or settings
  - Add to the knowledge base of health education program design
  - Identify hypotheses about behavior for future evaluation.
- *From Windsor et al., 1994*

# What is Evaluation?

A **systematic** gathering of information about the intervention's **operation**, as well as its **effects**.





# CDC 6 Step Model

1. Engage stakeholders
2. Plan the Program
3. Focus the Evaluation
4. Gather credible evidence
5. Justify Conclusions
6. Ensure use and share lessons learned



# Jay's steps to evaluation

1. Where do you want to end up?
2. How are you going to get there?
3. How are you going to prove it you got there?
4. How do you not make the same mistakes next time?
5. How do you let other people know what you did?

# Big Questions?

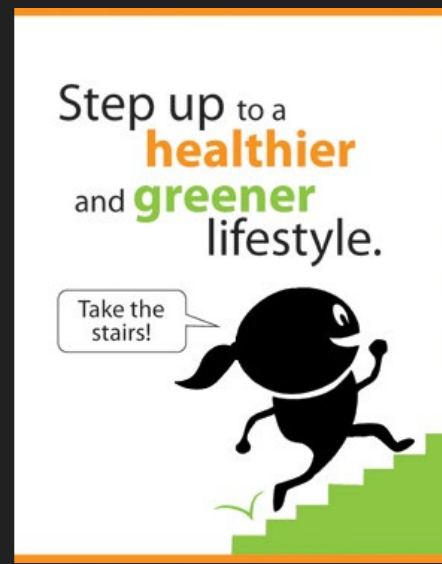
What are you trying to do?

How are you going to do it?

How do you know if it worked?

# Stairwell Campaign

- Your office has decided to do a StairWell campaign to increase the use of the stairs. What would you want to know and how would you measure it?



# What would you want to know?

- Do more people take the stairs?
- How many things do you have to do?
- Is it cost effective?
- Does it work better for different people (e.g. women vs. men)
- Does it increase overall physical activity?
- Does it effect productivity?



# Social Marketing Campaign

- Your agency has decided to launch a walking campaign aimed at middle aged adults. It will use paid media as well as events and walking groups. What would you want to know?



**WHEELING WALKS**  
ISN'T • IT • TIME • YOU • STARTED • WALKING?

# What would you want to know?



Do more people walk  
after the campaign?



How many people  
saw the ads?



Was it cost effective?



Did it work differently  
for different people?

# Adding a new bike lane

- You've worked with the city planning office to develop a new bike lane. What would you want to know?





# What would you want to know?



Are more people riding bikes?



Are people just taking new routes or are they new bikers?



Does it work differently for different people?



Is it cost effective?

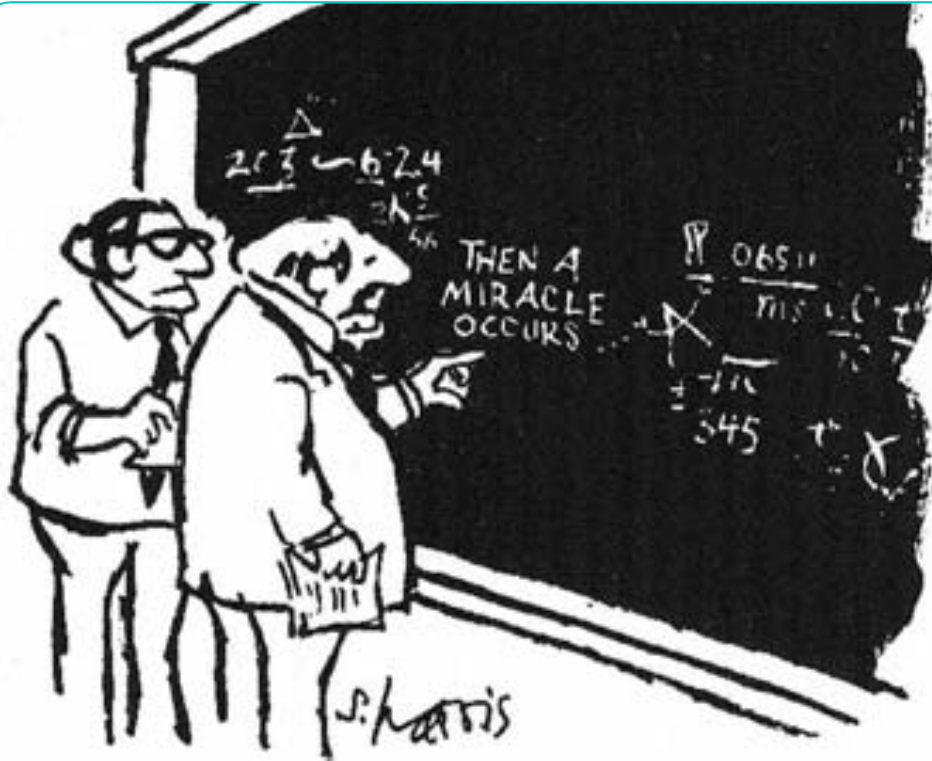


Do accident rates go up?



Does traffic slow down?

# How do you work with an evaluator?



"I think you should be more explicit here in step two."

**“Do good process  
evaluation always, do  
good outcome  
evaluation sometimes”**

- Dr. Adrian Bauman
- University of Sydney



# Barriers to good evaluation

- Lack of program planning
- Bringing in the evaluators too late
- Unclear goals and objectives
- Lack of time



# Evaluation should fit the intervention

- ⦿ How much time and money are you spending on the program?

# How to get good evaluation



ENGAGE  
EVALUATORS EARLY



COLLECT  
EVIDENCE THAT  
YOUR  
STAKEHOLDER WILL  
BELIEVE



PLAN YOUR  
PROGRAM



DON'T EXPECT  
MAGIC



USE EVALUATION  
RESULTS FOR  
PROGRAM  
IMPROVEMENT  
THROUGHOUT THE  
PROJECT

# CDC 6 Step Model

- Engage stakeholders
- Plan the program
- Focus the evaluation
- Gather credible evidence
- Justify conclusions
- Ensure use and share lessons learned



**Who is your  
audience/  
stakeholders?**



# Stakeholders

- Boss
- Elected Officials
- Community Members
- Funder
- Others?



# Just the facts

- Think of yourself as a detective/lawyer trying to collect enough evidence to prove who committed a crime.
- Who do you need to convince your program works.
- What type of evidence is the jury going to believe.
- The level of evaluation is often based on scarce resources (i.e. funding, time)



What evidence will your  
stakeholders believe?

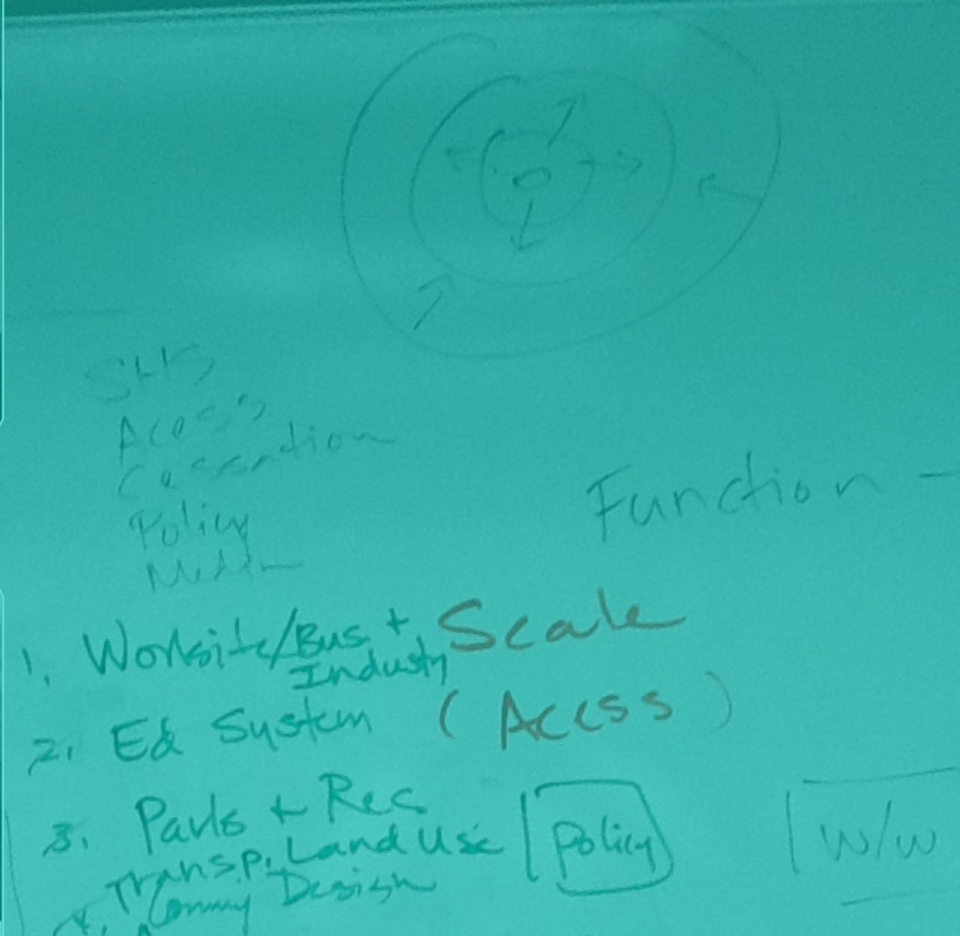
# Types of Evidence



- Quantitative Data
- Success Stories
- Photographic evidence
- Testimonials

# Step 1

- Convene stakeholders
  - Figure out what you are trying to achieve
  - Figure out what evidence different stakeholder groups will believe
- 
- A row of white chess pawns is shown in the background, slightly out of focus. In the center foreground, a single black pawn stands prominently, facing forward. The background is a soft, greyish blur, suggesting a chessboard with many more pawns.



SLS  
 Access  
 Cession  
 Policy  
 Media

Function -

1. Worksite/Bus + Industry **Scale**
2. Ed System (Access)
3. Parks + Rec  
Transp. Land Use [Policy] | w/w
4. Community Design

15. Mass media [System] | York
16. Signage [System] | York
17. Marketing [System] | York
18. Advoc. (Promotion/Ed) [System] | York

# Plan the Program

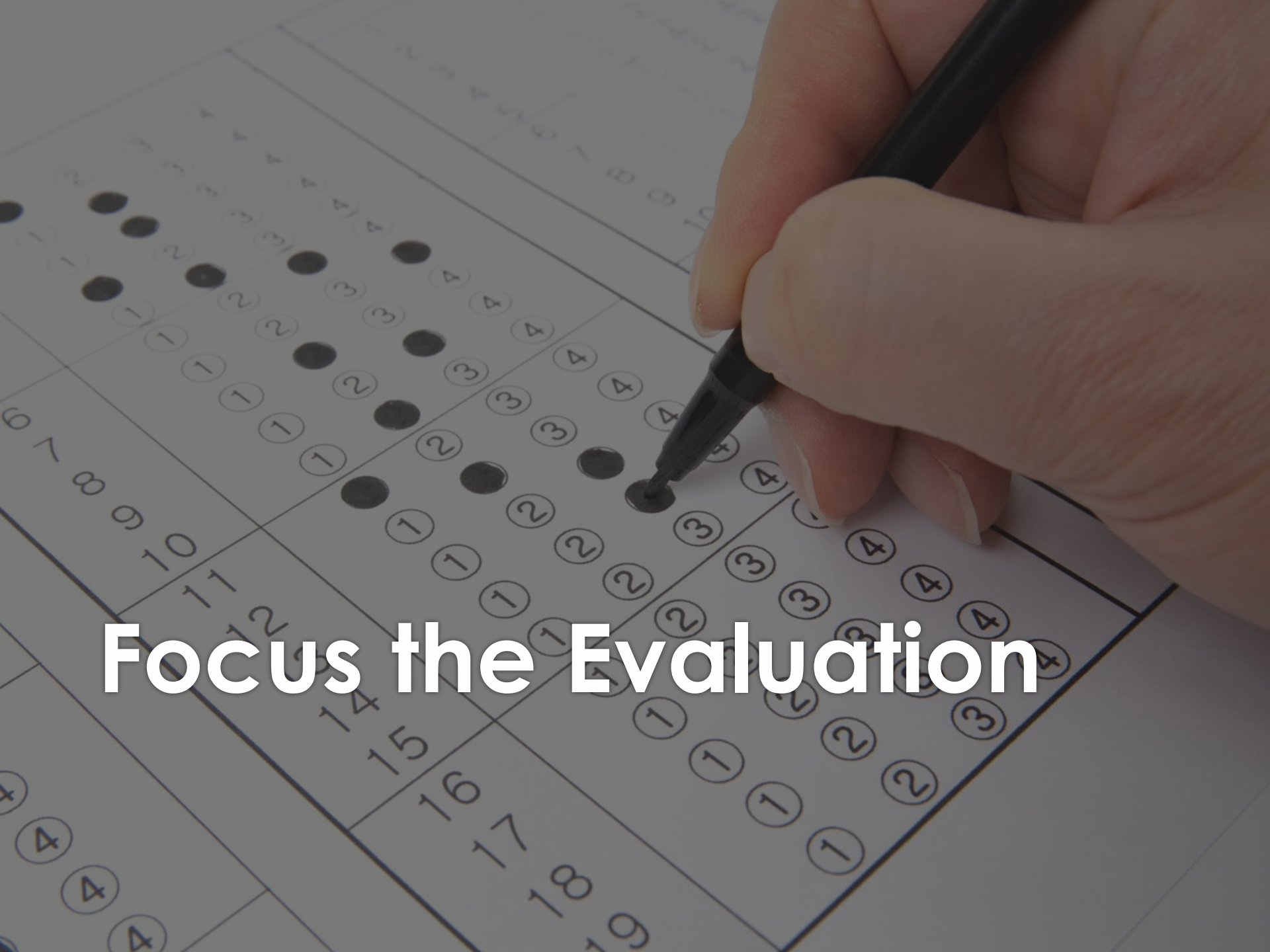
## 2. Plan the Program

- Why?
  - Provides evaluation framework
  - Enables comparison with similar programs
  - Connects program components to effects
  - Helps stakeholders agree on program goals and purposes

## 2. Plan the Program

- What?
  - Mission and objectives (need, context)
  - Program goals and strategies (expected effects, activities, resources)
  - Capacity for changes
  - Stage of development (planning, implementation, effects)
  - Fit with organization and community
  - Logic Model – visual demonstration of program elements and expected outcomes





**Focus the Evaluation**

# 3. Focus the Evaluation

- Why?
  - Assess important issues for stakeholders
  - Efficient use of time and resources
- What?
  - Methods (design and procedures)
  - Questions – negotiated and prioritized boundaries, unit of analysis
  - Agreement on program aspects

# 3. Focus the Evaluation

- What?
  - Purpose/Uses are influenced by stage and context
    - Gain insight – How will activities create change?
    - Change practice – How can the program quality, effectiveness, or efficiency be improved?
    - Assess effects – What is the relationship between activities and outcomes?
    - Affect participants – What is the actual effect of activities on participants?



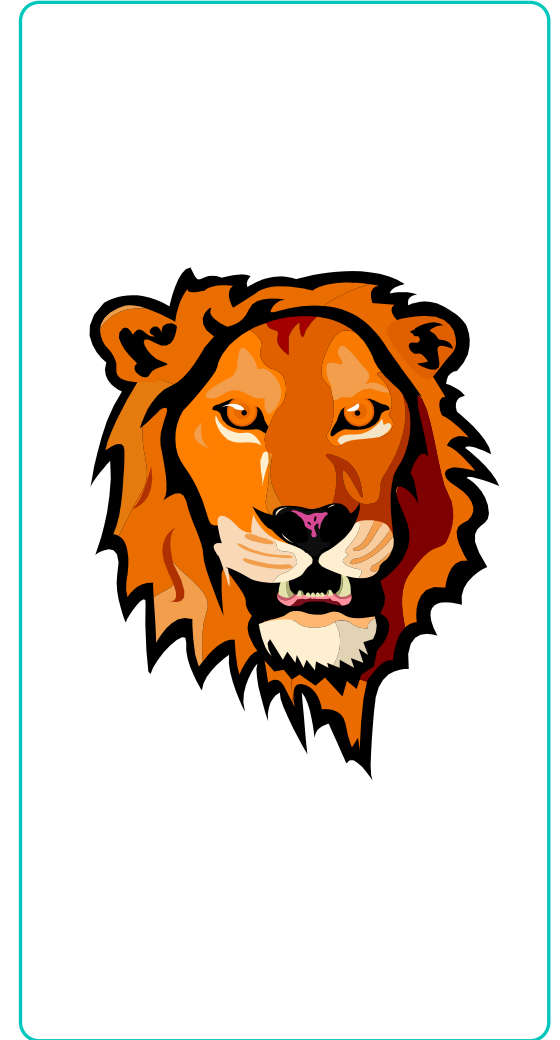
# Evaluation Design

# Internal & External Validity

- Internal validity – how well can we attribute behavioral change to the program (intervention)?
- External validity – how generalizable are the results to the real world?
- Research – High internal validity
- Evaluation – High external validity

# Threats to Internal Validity

- History
- Maturation
- Measurement
- Regression to the Mean
- Selection Effects



# Attribution of Effect

- 1. Comparing outcomes with what would have happened with no intervention.
- 2. Comparing outcomes to another intervention.

What can you compare your results too?

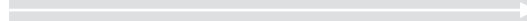
# Types of Outcome Evaluation Designs

- Post-Test only
- One group pretest-posttest design
- Non-equivalent control group design
- Non-equivalent comparison group design
- Randomized pretest-posttest control (comparison) group design



# Post-Test Only

Program

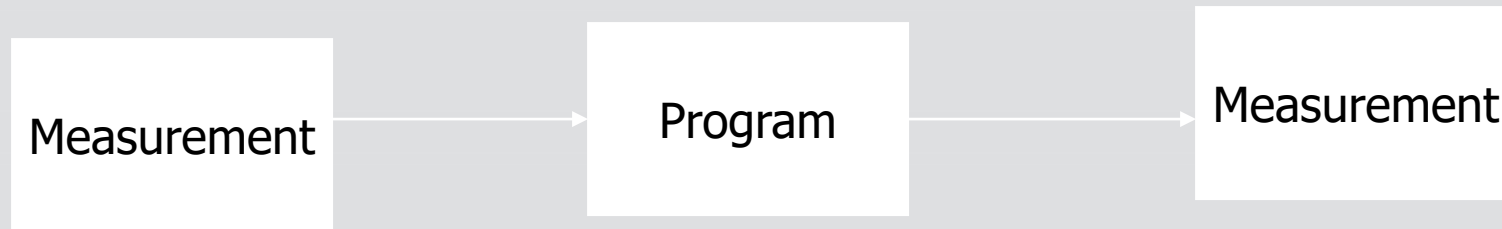


Measurement

# One Group Pre-Post Design



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TEXAS A&M UNIVERSITY





# Non-equivalent Control Group Design



# Non-equivalent Comparison Group Design



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# Non-equivalent Comparison Group Design

Randomization





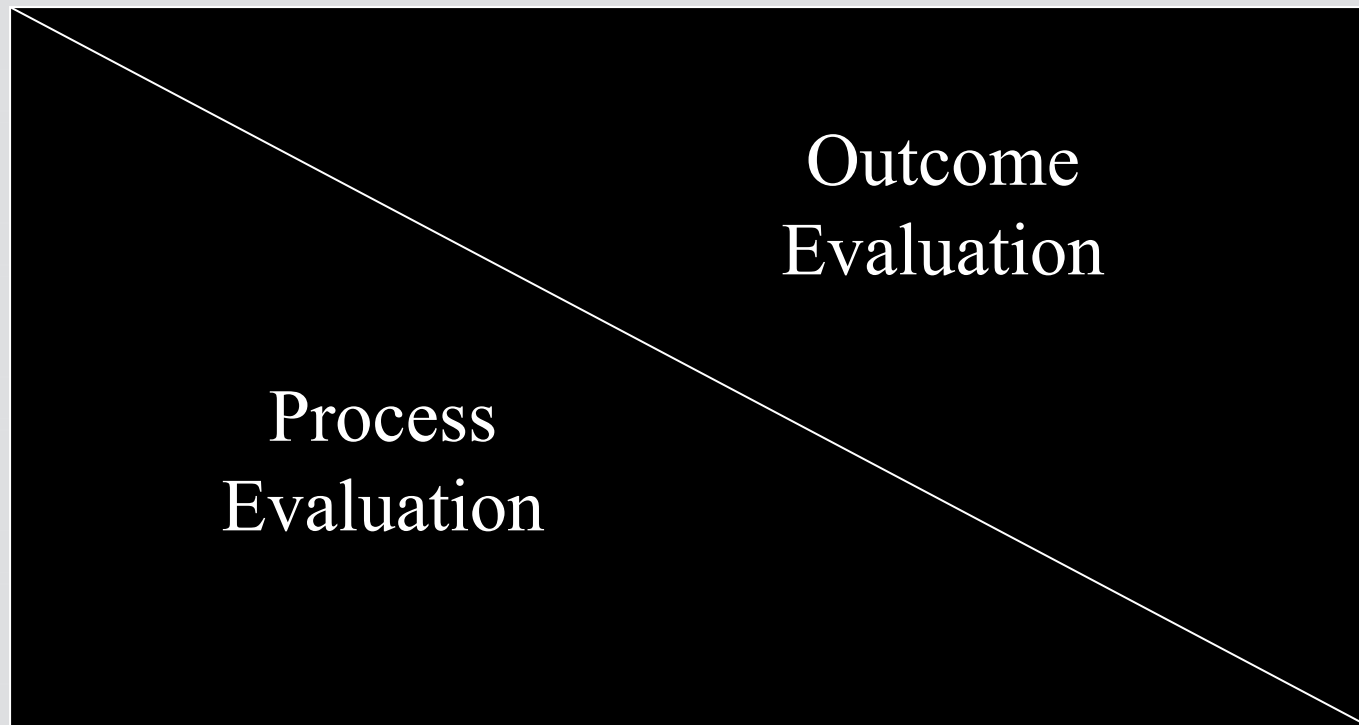
# Evaluation Life Cycle

# Two Types of Evaluation

**Process Evaluation** – Ongoing assessment and documentation of the planning, development, and implementation phases of an intervention.

**Outcome Evaluation** – did the intervention make a difference in the lives of the clients or the community?

# Stages of Program Development



Initiation Stage-----Dissemination Stage



# Conducting an Evaluation: Process Evaluation

- Is program reaching target audience?
  - Do they know about it?
  - Are they participating?
  - Are there barriers to participation?
- Roadblocks
  - Unforeseen problems
  - Changes made to program

# Conducting an Evaluation: Process Evaluation, con't

- Changes to original design
  - How they affect goals
  - How they will affect outcomes
- Tools
  - Program records
  - Staff interviews and logs

# Developing SMART Objectives

# SMART Objectives

- **Develop SMART objectives. Objectives should be SMART— that is, Specific, Measurable, Achievable, Relevant, and Time-specific.**



# SMART Objectives

- **Specific – What exactly are we going to do and to/with whom?**
- **Measurable – Is it measurable and can we measure it?**
- **Achievable – Can we get it done in the proposed timeframe, using the proposed activities, for this amount of money?**
- **Relevant – Will this objective lead to the desired results? Does it support the outcomes of the agency' s or funder' s long-range plan?**
- **Time Specific – By when will we accomplish this objective?**
- Specify a target audience and an intended outcome.
- Specify a baseline and a target, and specify how/where data are being collected re: this baseline/target.
- Provide a time frame when the objectives will be met.

# Evaluating an Objective

- Imagine the following scenario:
- You and your team have been given balloons and are given the objective to keep AS MANY BALLOONS AS YOU CAN in the air for one minute. You cannot hold the balloons and you are permitted to help each other. Once a balloon drops to the ground, it is out.
- You are competing against another team, whose goal is to keep ALL BALLOONS in the air for 1 minute. They cannot hold the balloons and they are permitted to help each other. Once one of their balloons drops to the ground, it is out.
- Your team drops more balloons than the other team, yet you are rewarded with praise, while the other team is scolded for not achieving their goal.
- Why?

Question 1: Was the goal of keeping "As many balloons as you can in the air" SMART?



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Specific	Not Specific
Measurable	Not measurable
Achievable	No because standard is so vague
Relevant	Yes
Timed	Yes

# Question #2: Was the goal of keeping "All balloons in the air" SMART?



Specific	Yes - ALL balloons
Measurable	Yes - ALL balloons
Achievable	Not achievable
Relevant	Not relevant
Timed	Yes



Question #3: What happens  
when a goal is vague?

- Team members may always feel successful
- Mediocrity may be acceptable, as the
- Team may not feel the need to strive for excellence
- What other reasons can you think of?

Question #4: What can occur if the goal is not reasonable?

- Feel frustrated
- Be unmotivated
- Will give up
- Feel not supported
- What other reasons can you think of?

Question #5: What could the leader have done differently to make this more effective?

- Establish clearer goals
- Collaborate on goal setting to avoid confusion and misunderstanding
- Promote group planning on how it will accomplish its goals
- Give practice time
- What other strategies can you think of?

# Tips for Writing Objectives

- Give yourself enough time; most objectives go through multiple rewrites
- Brainstorm collectively, but appoint a designated writer to produce draft objectives.
- Beware of goals disguised as objectives (e.g. to promote physical activity)
- Use a mixture of process and outcome objectives.

# See you in South Carolina

Faculty



Fellows

