

# PROGRAM EVALUATION: METHODS & TOOLS

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Alison Brooks, M.D.  
Stephanie Corliss, Ph.D

with acknowledgment to:  
Emily Vinas, Ed.D.  
Dell Medical School, The University of Texas at Austin

Disclosures: The speakers have no financial conflict of interests related to this presentation.

# Objectives

1. Describe fundamental principles of educational program evaluation
2. Discuss models used in evaluation
3. Identify barriers to program evaluation
4. Develop an evaluation plan for a program or curriculum

## What is Evaluation?

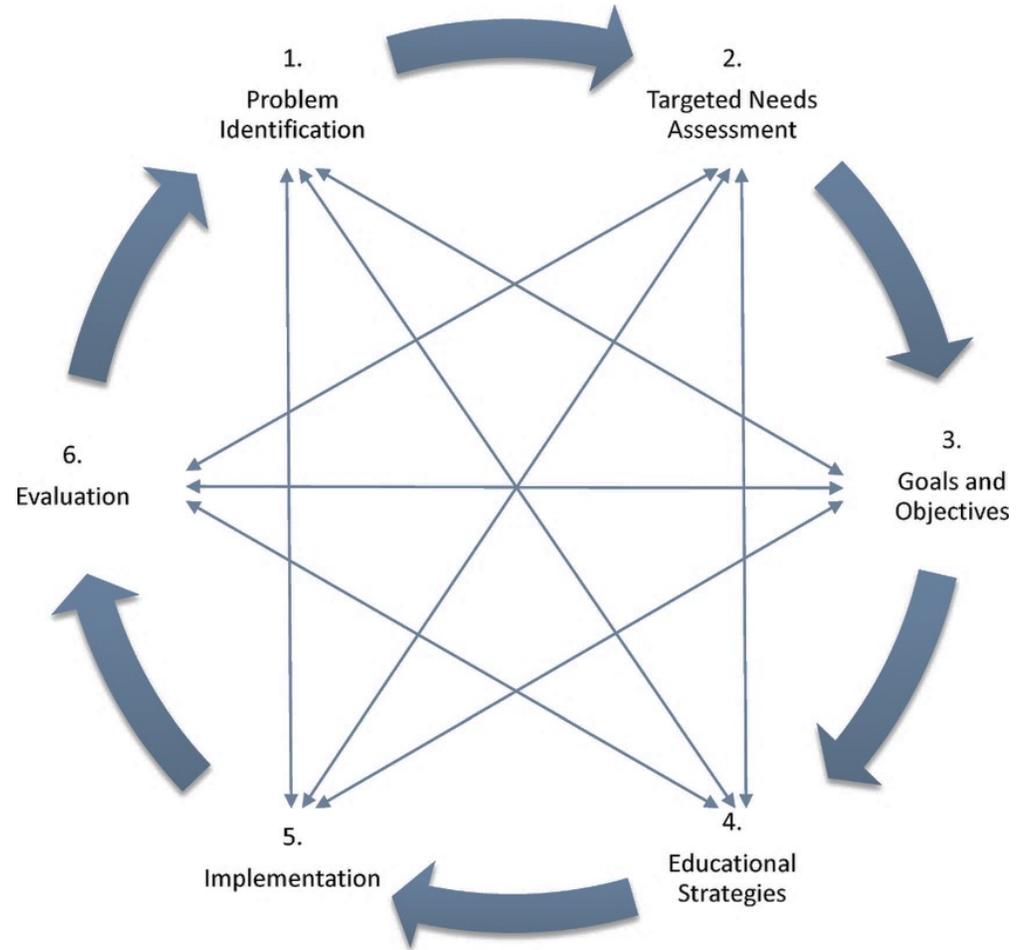
*Evaluation is the process of making judgments and decisions about effectiveness, quality, or value based on collected data.*

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- Contextual and produces localized results
- Compared to research, less interest in generalizing over time

# Curriculum Process



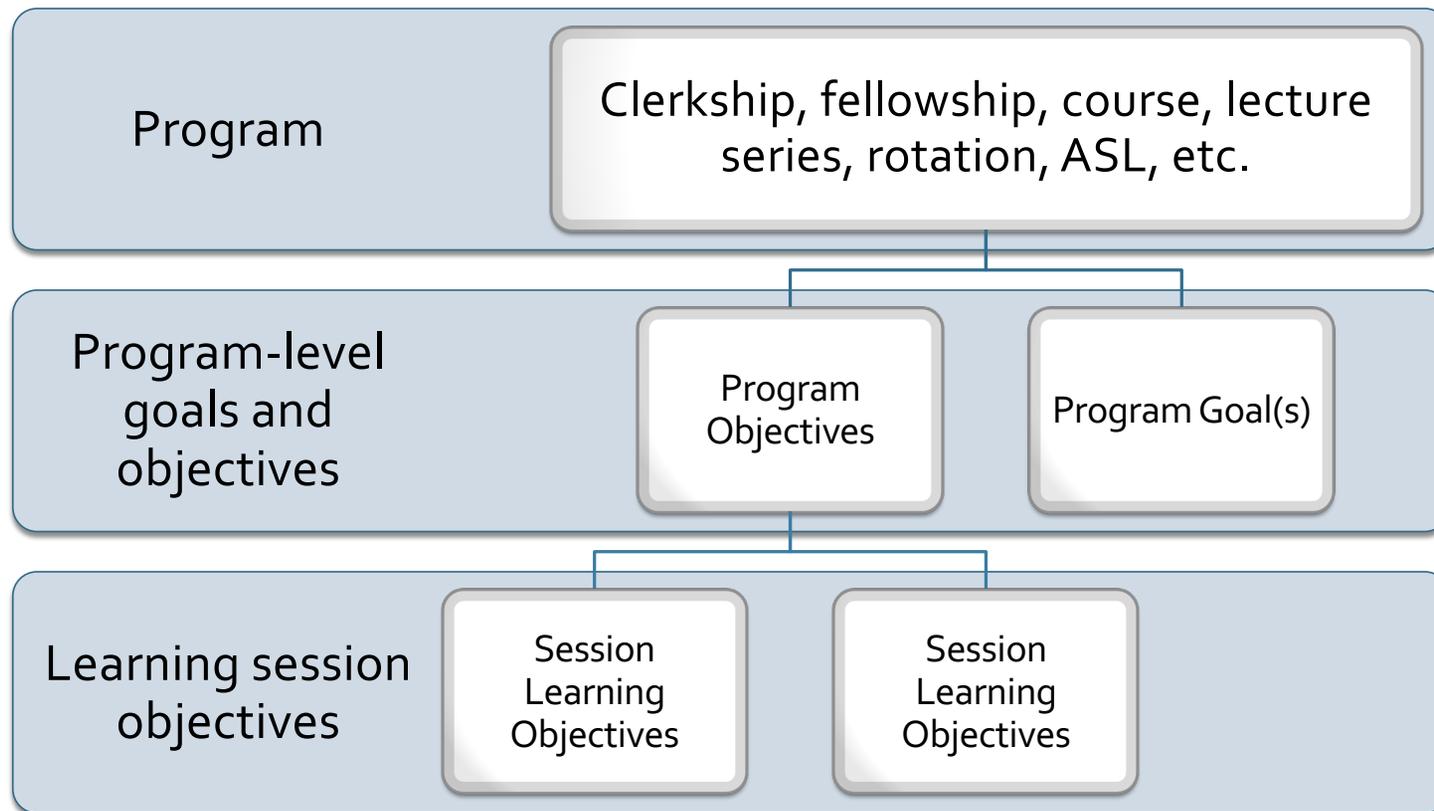
## What Constitutes a “Program”?

*A program is a set of resources and activities directed toward one or more common goals, typically under the direction of a single manager or management team.*

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What are some examples of programs?

# An Example Educational Program



# An Example Program: Fellowship in Medical Education

**Program Goal:** To develop medical educators who lead, create, teach, and evaluate educational initiatives

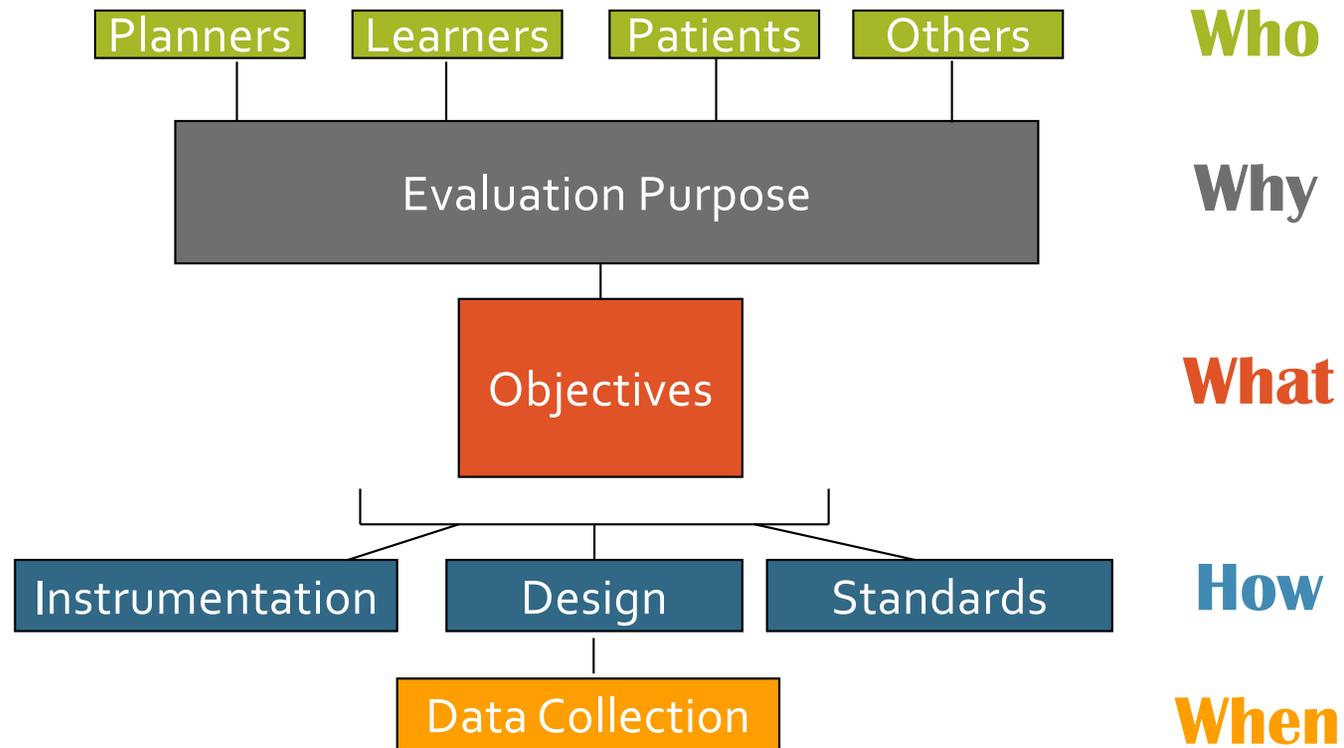
**Program Objectives:** After completing the fellowship, participants will be able to:

1. Apply general principles of learning drawn from theoretical perspective such as cognitive psychology, social constructivism, and motivation to the analysis of teaching and learning situations in medicine.
2. Develop curriculum and/or instruction that reflect systematic attention to learner needs, program goals, learning objectives, selection of instructional activities, evaluation, and feedback
3. Apply leadership skills to promote, influence, and sustain educational change.
4. Engage in reflective practice for educational improvement and professional development

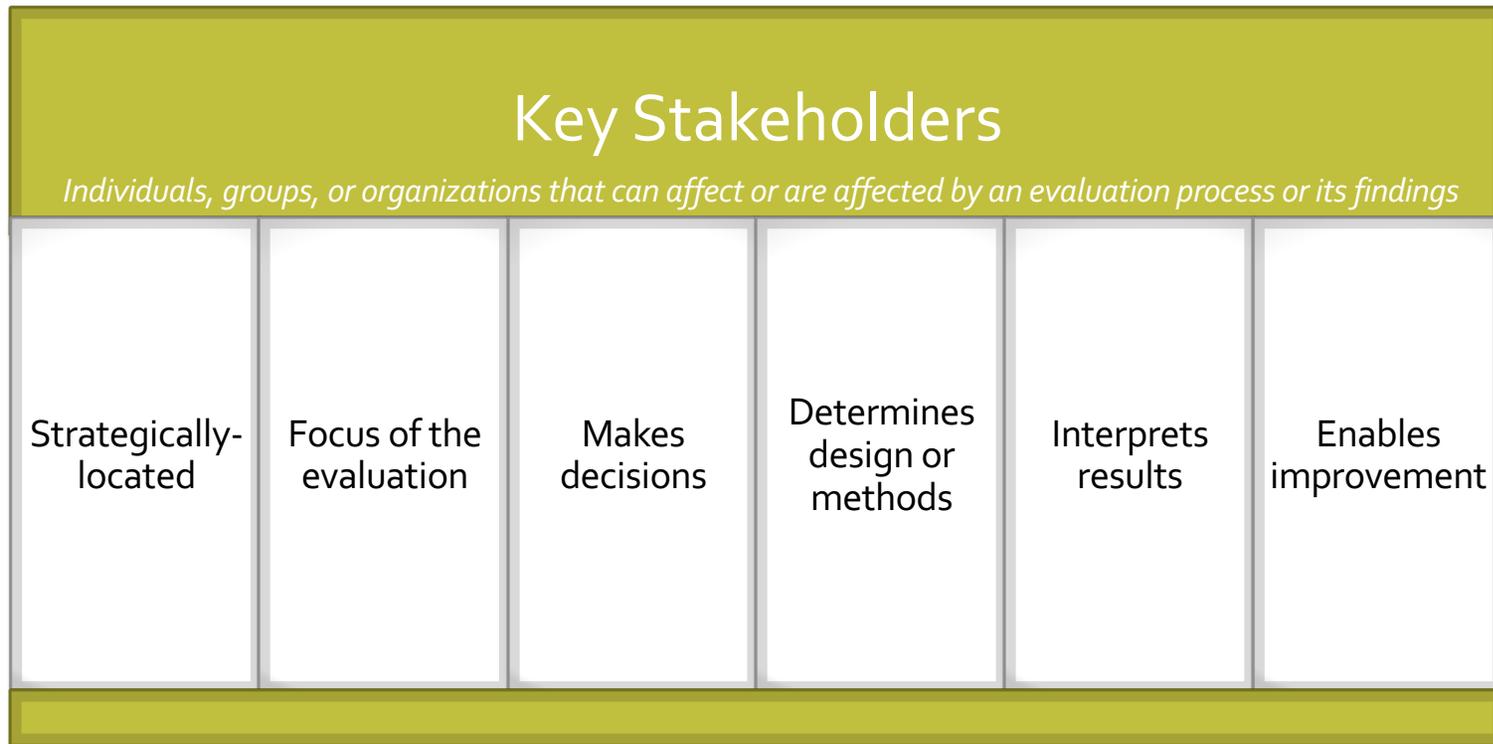
**Session 1 Objectives:** After completing the session, participants will be able to:

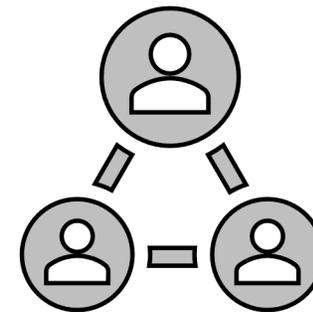
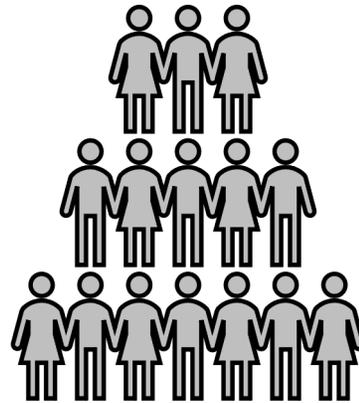
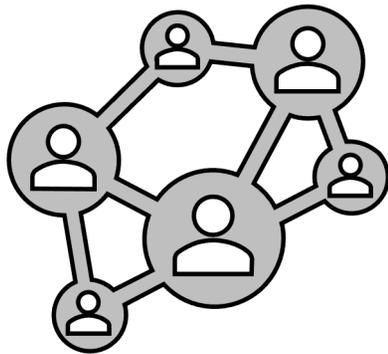
1. Describe the personal theories of learning derived from experience as a learner
2. Assess the value of a community of learners who share the goal of continuously improving medical education.
3. Describe core competencies for medical educators for those with or without program roles.

# Planning an Evaluation



# Who? - Users





Who are the **key stakeholders** for the  
Fellowship in Med Ed?

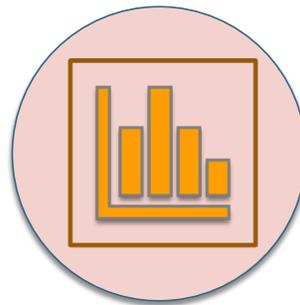
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## Why? - Uses

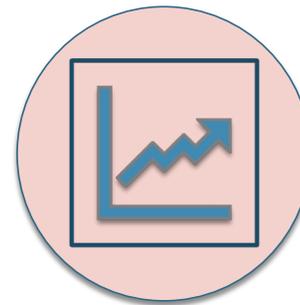
*Program evaluation is the application of systematic methods to address questions about program operations and results.*



DETERMINE  
PROGRAM MERIT

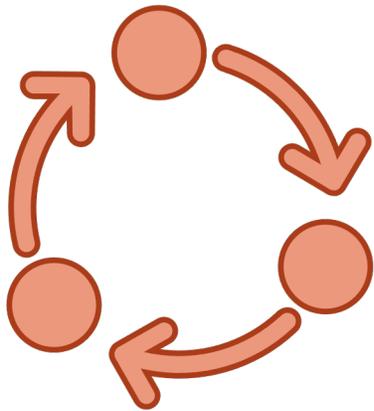


MAKE DATA-DRIVEN  
DECISIONS



CONTINUOUS QUALITY  
IMPROVEMENT

# Formative Evaluation



**Process-focused**

## **Formative**

Purpose: Program development and improvement

When: Begins when program starts (or before)

Right objectives?

Measurable objectives?

Meets learners' needs?

Appropriate design?

Collecting appropriate data?

Implemented as planned?

# Summative Evaluation

## **Summative**

Purpose: Evaluate outcomes

When: Following implementation

Meets overall program goals?

Meets individual learning session objectives?

Effectiveness?

Used for improvement/decision-making



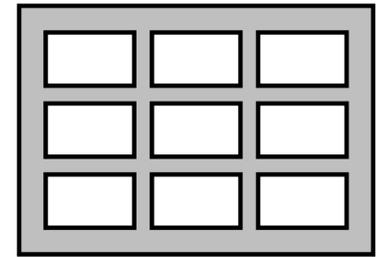
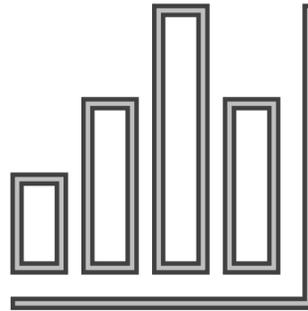
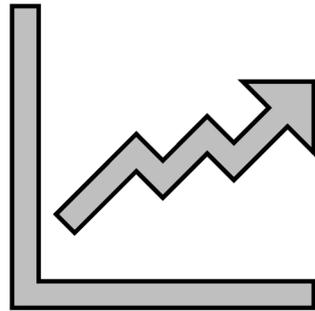
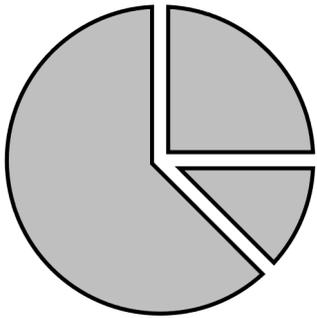
**Outcomes-focused**

# What?

## Goals & Objectives → Outcomes

### **Fellowship in Medical Education Program Objectives**

1. Apply leadership skills to promote, influence, and sustain educational change.
2. Apply general principles of learning drawn from theoretical perspective such as cognitive psychology, social constructivism, and motivation to the analysis of teaching and learning situations in medicine.
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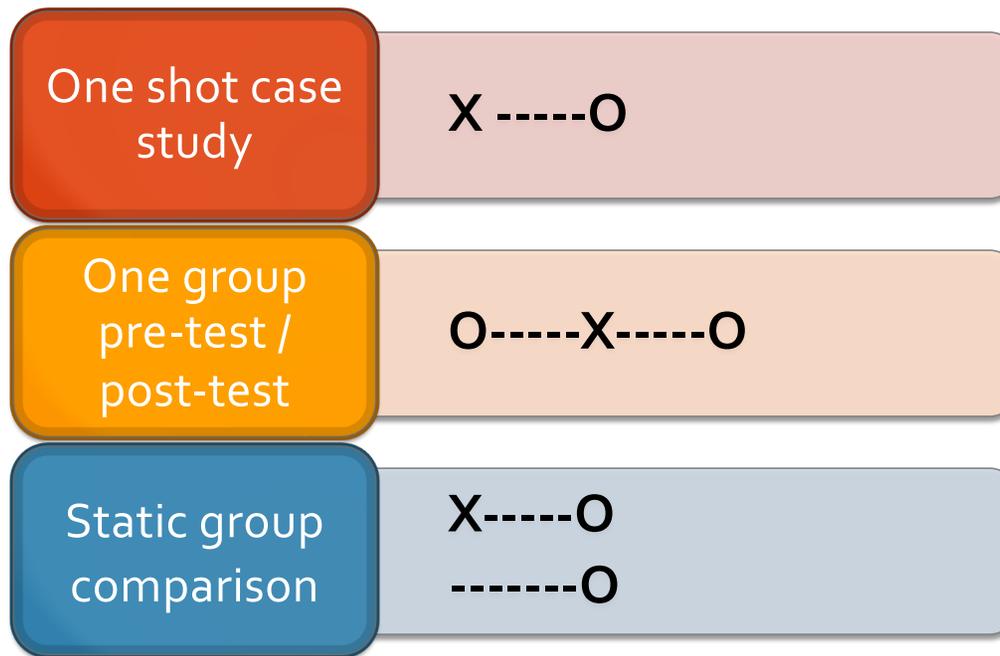


What **data** do we need to evaluate the  
Fellowship in Med Ed?

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How? - Designs, Models, Methods, & Measures

# Evaluation Design: Pre- or Quasi- Experimental



# Kirkpatrick Model

## Level 1: **Reaction**

The degree to which participants find the learning favorable, engaging, and relevant

## Level 2: **Learning**

The degree to which participants acquire intended knowledge, skills, attitude, confidence, and commitment

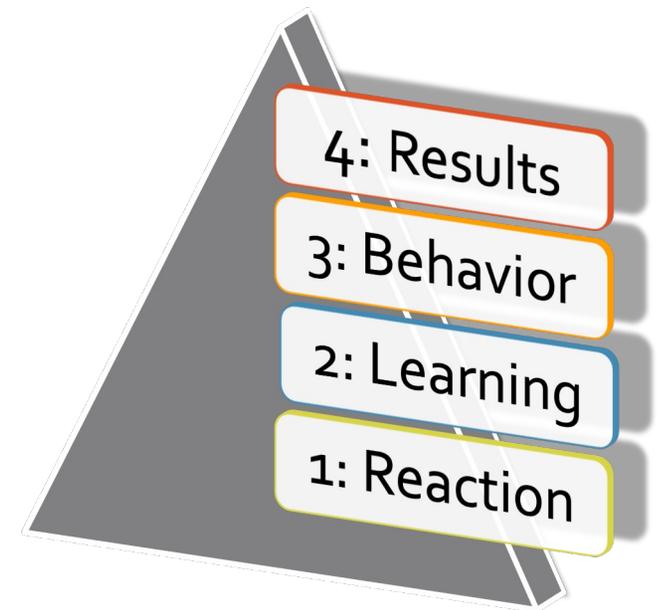
## Level 3: **Behavior**

The degree to which participants apply what they learned

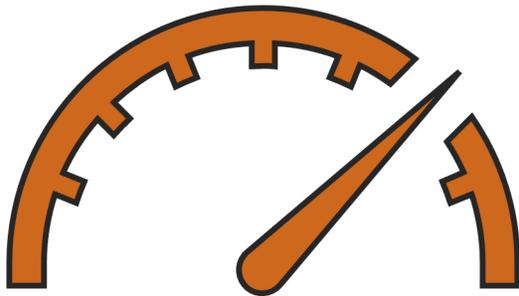
## Level 4: **Results**

The degree to which targeted outcomes occur (*i.e. Bottom-line effect on career, institutional improvements, patient outcomes*)

<https://www.kirkpatrickpartners.com/the-kirkpatrick-model/>



# Measuring Outcomes



- Have the learners achieved the objectives?
- Did the program meet the stated goal(s) and objectives?
- Was the program implemented as intended?

# Evaluation Methods



Focus groups



Individual interviews



Surveys & questionnaires



Written test



Direct observation



Performance test



Self-assessment



Organizational documents



Performance audits

## How and When? - Logistics

Who will conduct the evaluation?
Who will coordinate the evaluation?
How much funding is needed?
How much effort must learners contribute?
What is the likelihood of stakeholder participation?
What is the time period for the evaluation?
What instruments are already available?

## Breakout Activity #1:

How would you evaluate the Fellowship in Med Ed?

Include the following:

1. What evaluation design will you use?
2. What methods/measures will you use?
3. What levels of Kirkpatrick's Model can be achieved?

# Barriers to Program Evaluation



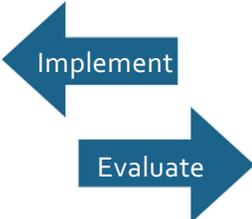
Time



Experience



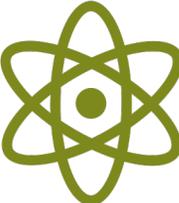
Culture



Tension



Publication



Scholarship



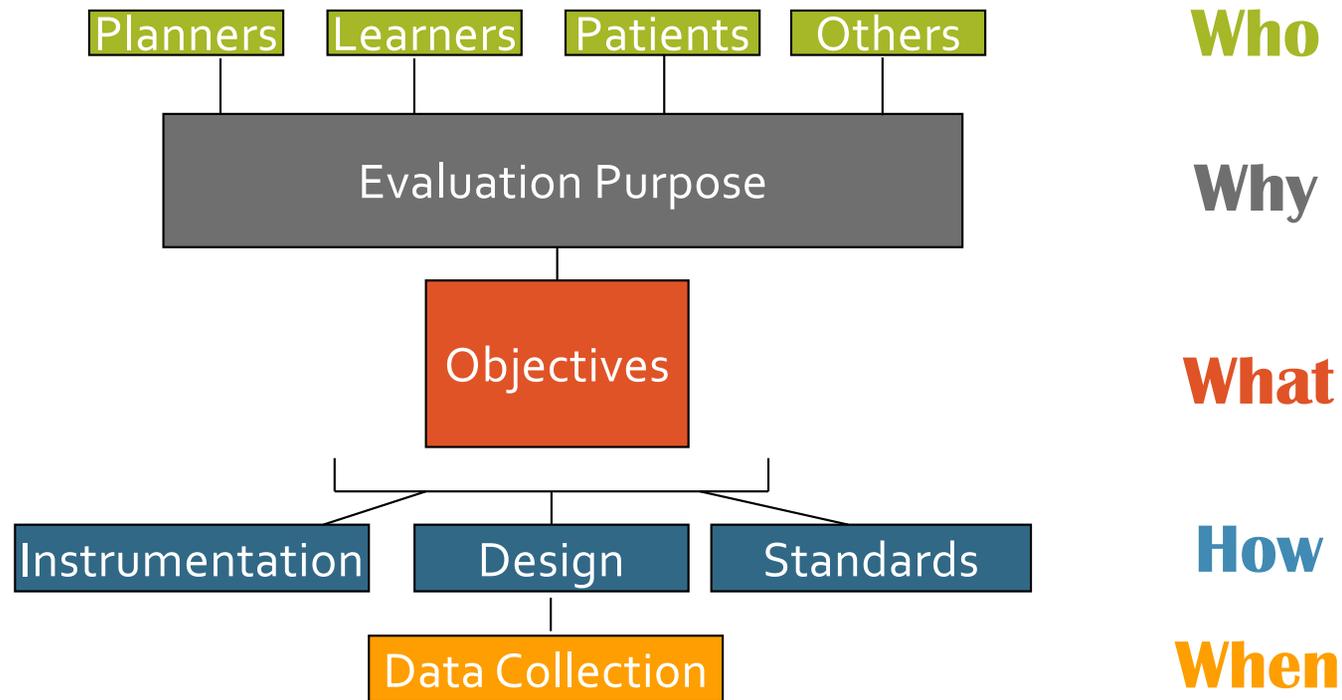
What are some **potential barriers** to consider when evaluating the Fellowship in Med Ed?

## Breakout Activity #2: Create an Evaluation plan for a Resident Research Program

Include the following:

1. Stakeholders
2. Purpose of the evaluation
3. Expected outcomes
4. Data to be collected
5. Potential barriers and possible solutions

Apply what you've learned to your proposed ASL project



What design and methods will you use to gather data for your project?

# Key Takeaways



Evaluation assesses program merit and produces contextualized results



Program evaluation should be considered during the design phase



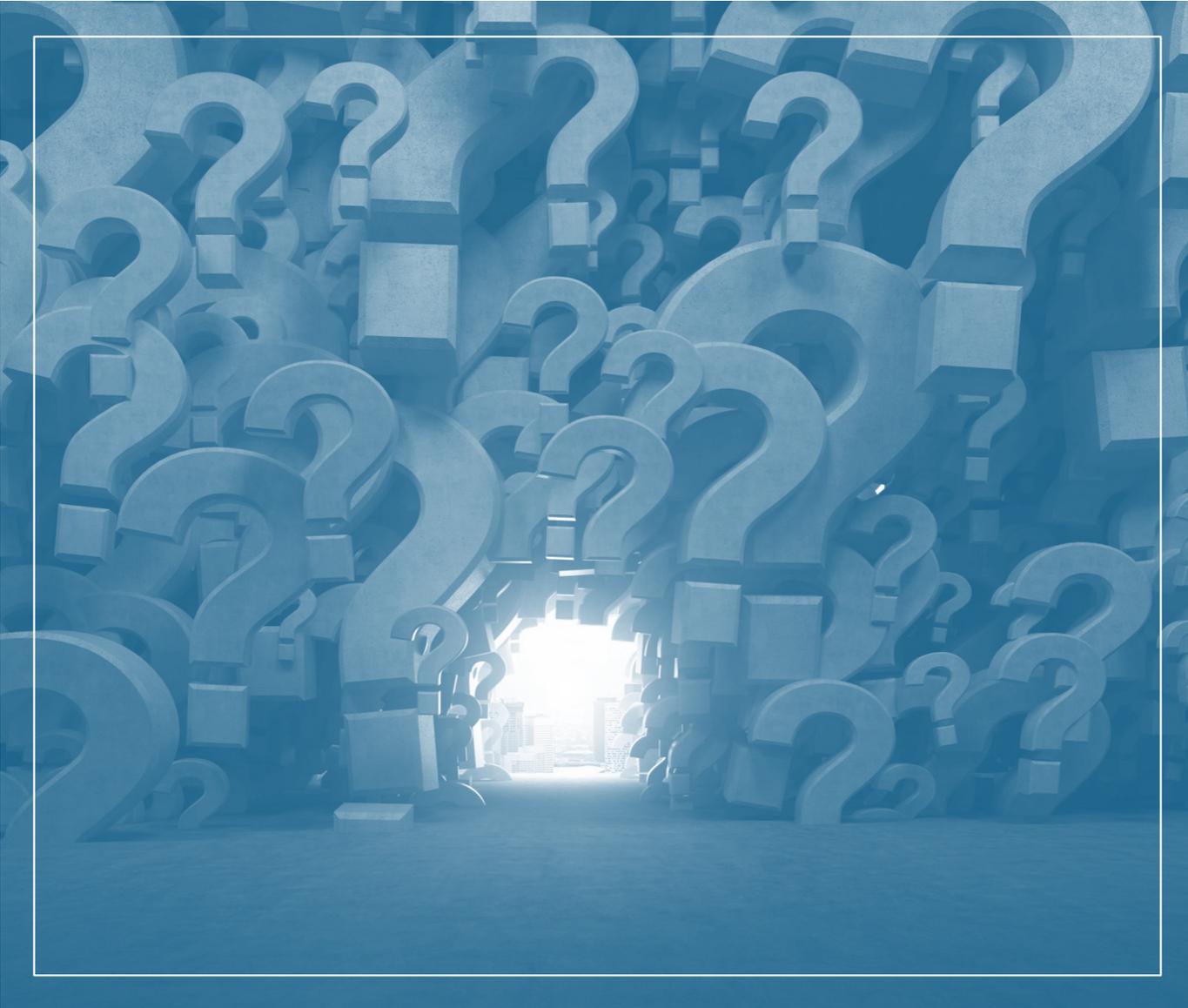
A systematic approach to program evaluation is recommended that includes consideration of design, models, methods, and measures

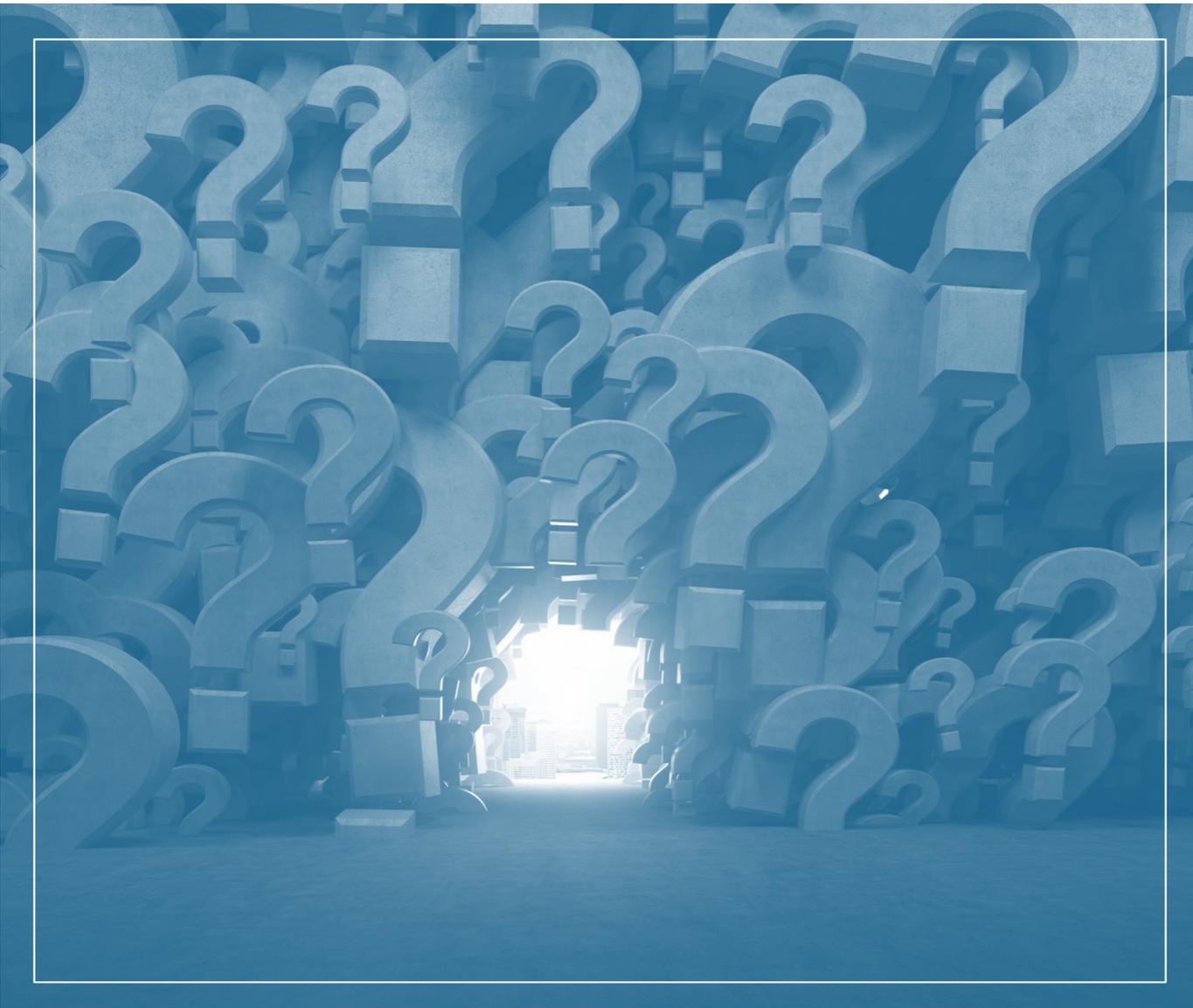


Barriers must be considered when creating an evaluation plan

# Final Questions?

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A 3D rendering of a hallway filled with question marks of various sizes, leading to a bright light at the end. The scene is monochromatic in shades of blue and white, with the question marks creating a sense of depth and perspective. The light at the end of the hallway suggests a path forward or a solution.

## Minute Paper

What is one thing  
you learned  
throughout our time  
together that you  
will apply to your  
work? \_\_\_\_\_

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