

Tools for Building Assessment & Evaluation Plan

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RGV STEM Education Conference,
McAllen, TX Feb 2020



Overall Goals

- Explore meaning, purpose, & types of evaluation
- Examine of tools for planning evaluations
- Make applications to your projects

Plan for Session

☐ Introductions

you, me, we

☐ Concepts, Definitions

foundation of evaluation

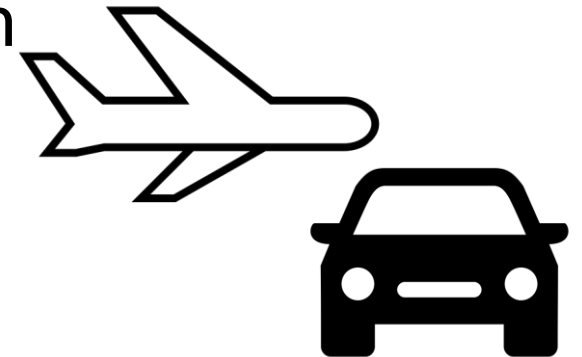
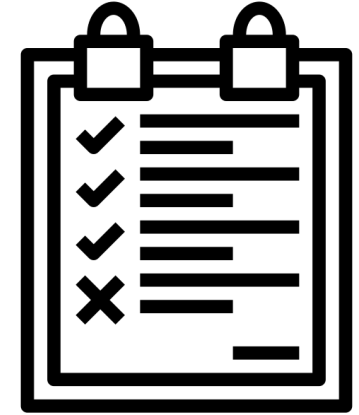
☐ Tools

Theory of change, Logic models, Gantt charts, Timetables

Who are we?

Michelle Burd

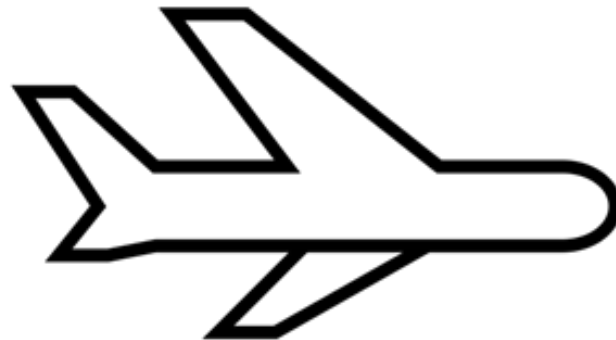
- Independent evaluation consultant
- Flew from Austin to Harlingen, drove to McAllen
- Lots of evaluation plans



Who are we?

How did you get to this conference?

- ☐ Drive 0-100 miles
- ☐ Drive more than 100 miles
- ☐ Fly
- ☐ Bike



Who are we?

What is your **position**
at your place of work?

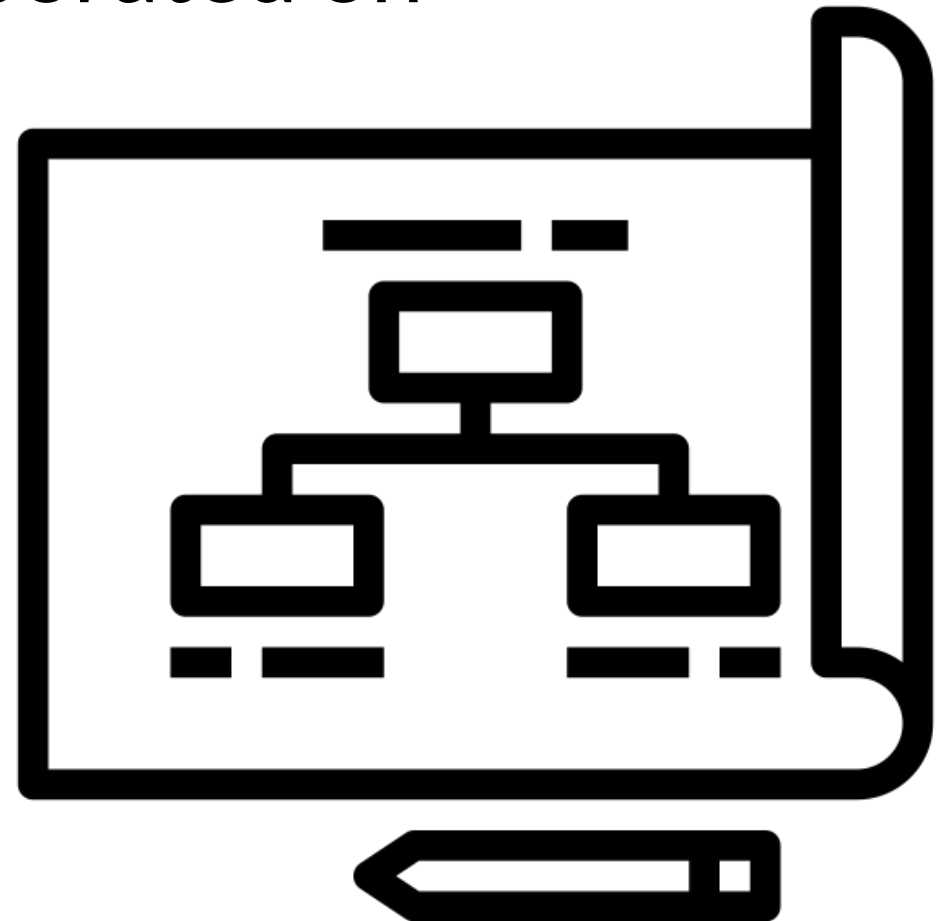
- ☐ K-12 educator
- ☐ K-12 administrator
- ☐ University faculty member
- ☐ University administrator
- ☐ Student
- ☐ Evaluator
- ☐ Other



Who are we?

Have you ever written or collaborated on an **evaluation plan** before?

- ☐ Yes
- ☐ No
- ☐ Not sure



Who are we?

From RGV or not?

Our work?

Our experience with evaluation planning?

What do funders want?

Who?

What?

How?

When?

What do funders want?

Who? → External evaluator

What? → Framework for evaluation

How? → Methodology

When? → Timeline

Who? Definition

Evaluation =

the systematic determination of

the **quality, value, or significance** of

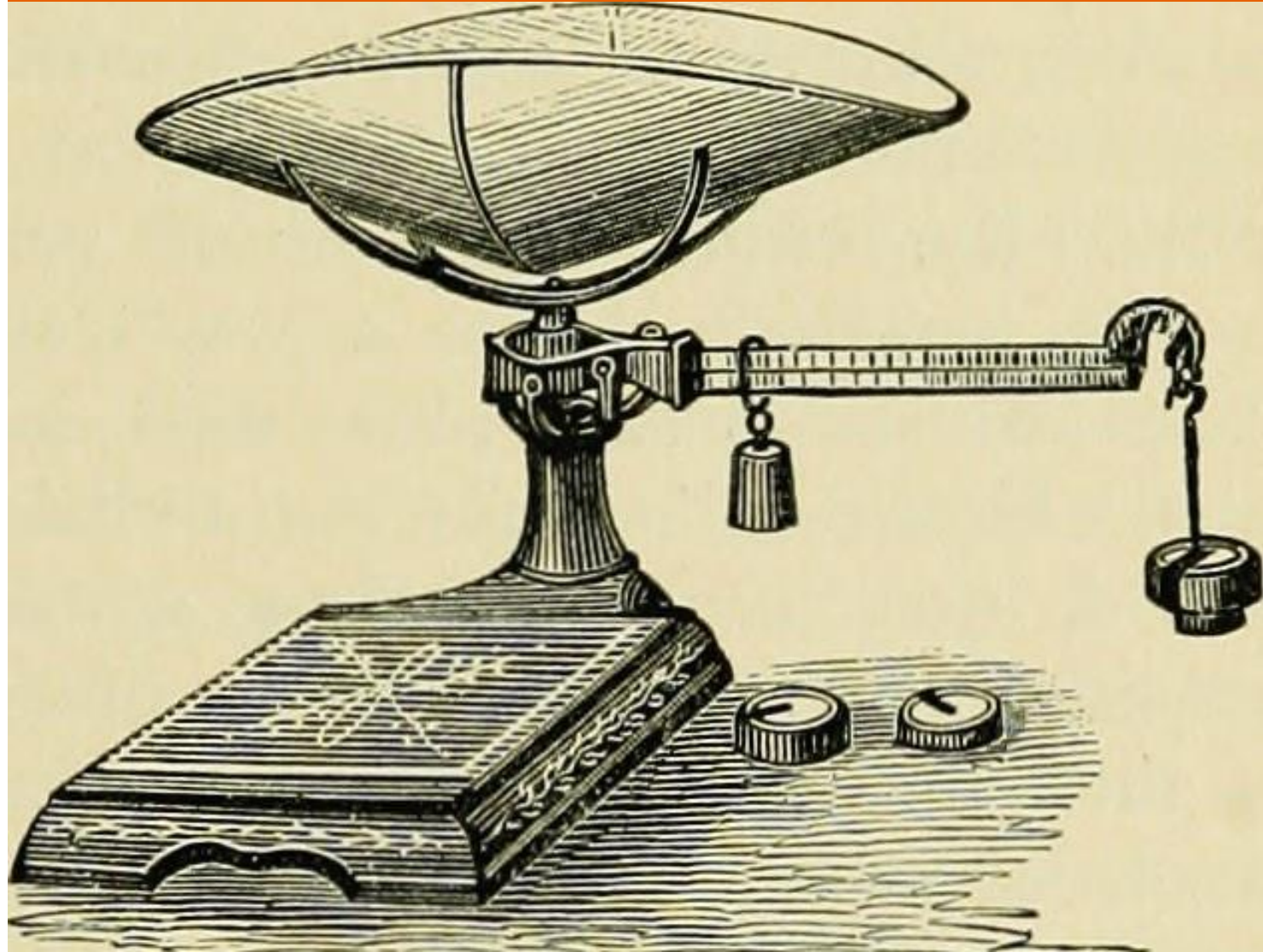
a program, policy or product

How to evaluate?

Identify criteria

Gather data
about object

Make judgments
about **how well** it
met criteria

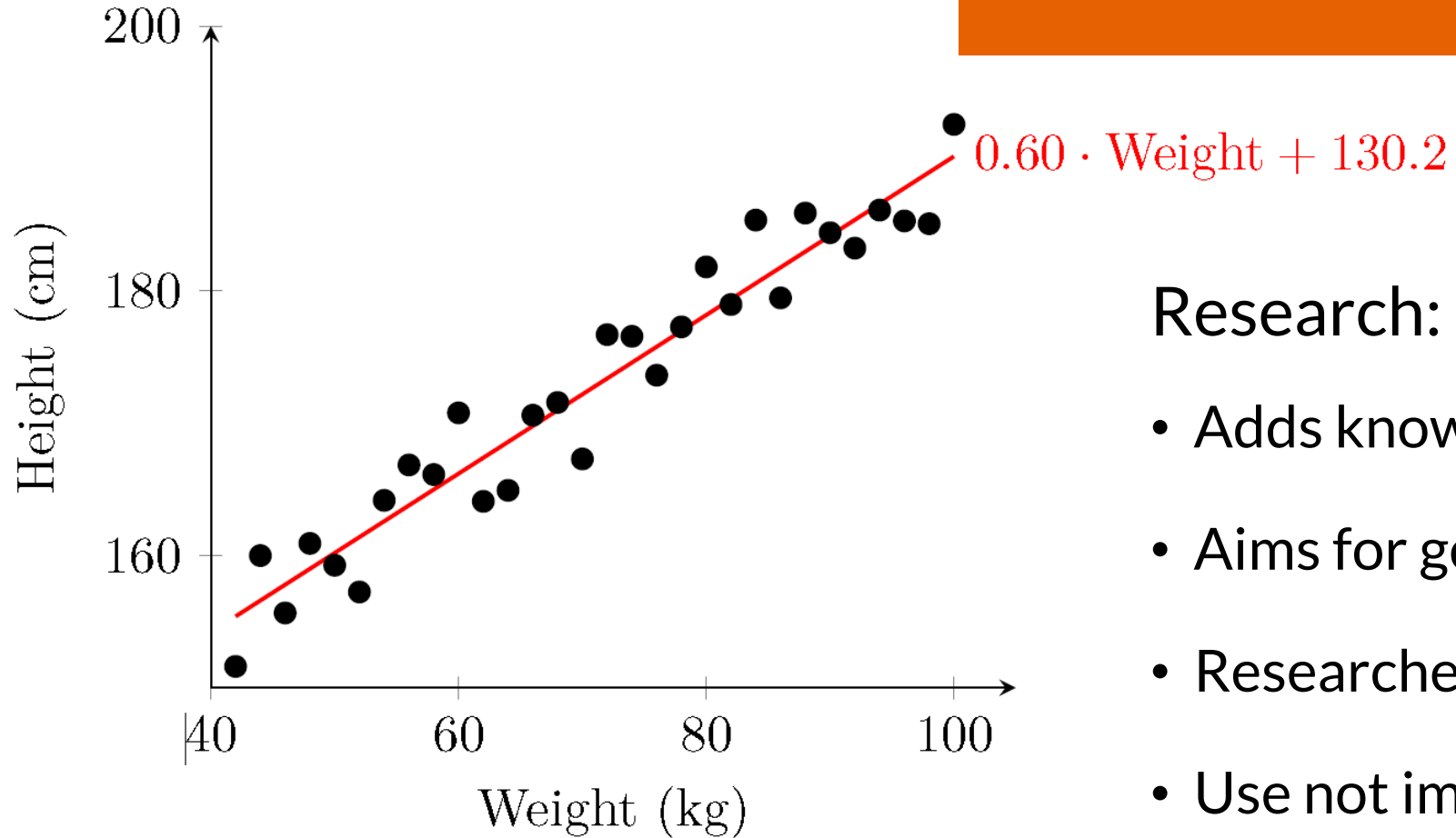


Real Life Example

“Find the washing machine that’s right for you”
Consumer Reports



Evaluation \neq Research



Research:

- Adds knowledge, laws, & theories
- Aims for generalizable results
- Researchers set agenda
- Use not important
- Standard = internal & external validity

Evaluation:

- Makes judgments, info for decision-making
- Context-specific results
- Stakeholders & evaluator set agenda
- Intended use of results very important
- Standard = accuracy, utility, feasibility, propriety, accountability

Evaluation \neq Research



Formative Evaluation

Purpose is to improve program
Feedback for managers & staff
Data used to diagnose (& make judgments)

What is working?
How well is it working?
What needs improvement?
How could it be improved?

Two Types



Summative Evaluation

Purpose is to make decisions
about future

Info to administrators, funders

Data used to make judgments

What results occurred?

For whom?

Under what conditions?

What were the costs?

Is it worthwhile, sustainable?

Two Types



Activity 1: Research or Evaluation?

Sort cards sort into 2 piles:

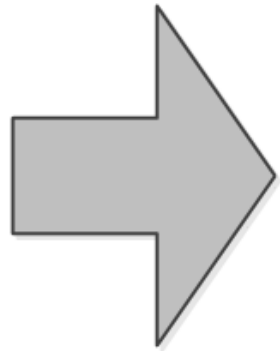
- Research
- Evaluation

What? Tools to Frame Eval

Theory of Change

Strategies

Courses & lab manuals in soil science
Field trips
Community engagement through CESL
Off campus internships & on campus research experiences
Graduate students mentoring & education



Results

Increased student
retention

Graduates ready for soil
science careers

Leadership skills

UTRGV TRESS
USDA-funded

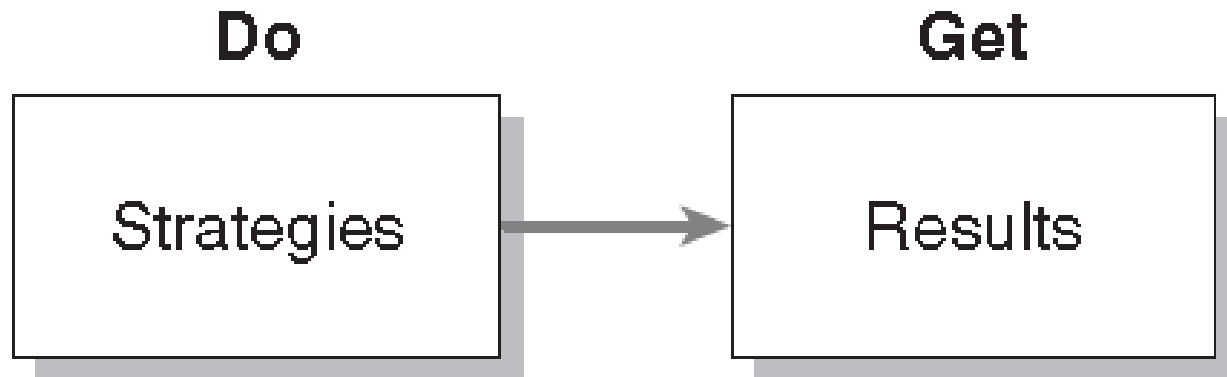
Ways to Model Projects

Theory of Change

Program Logic Model

Theory of Change

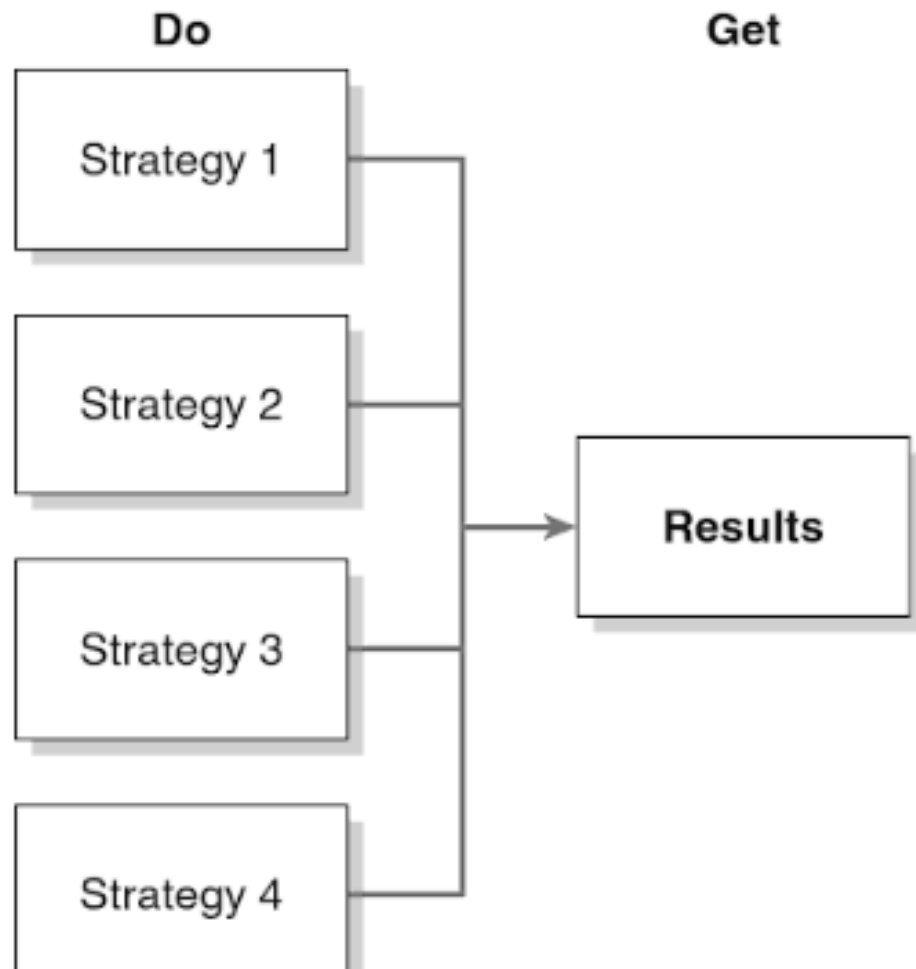
Basic Theory of Change



Knowlton & Phillips, (2013).
The Logic Model Guidebook

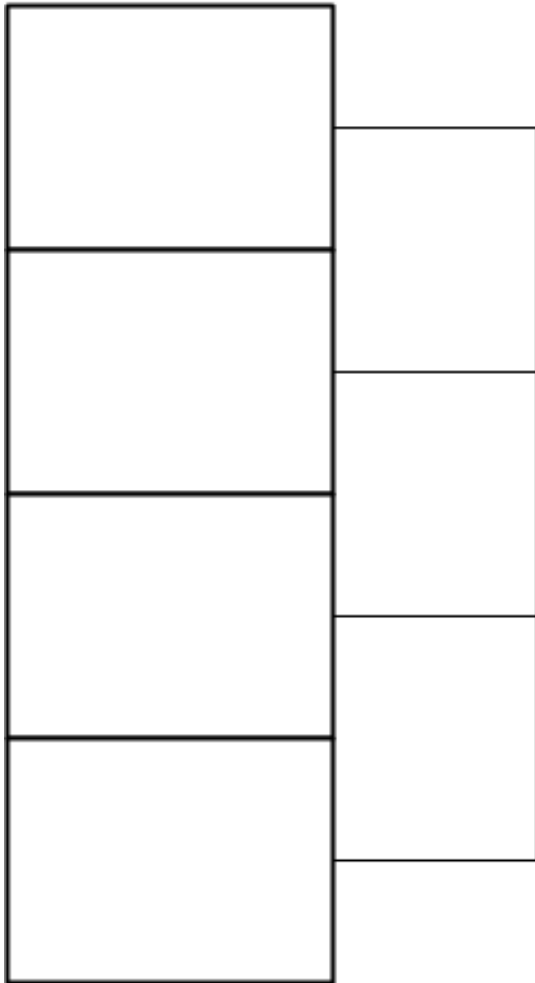
Theory of Change

Multiple-Strategy Basic Theory of Change

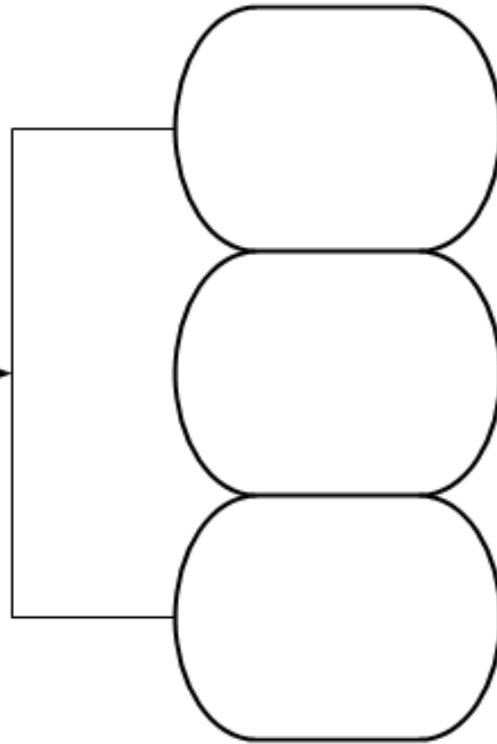


Activity 2: Your Theory of Change

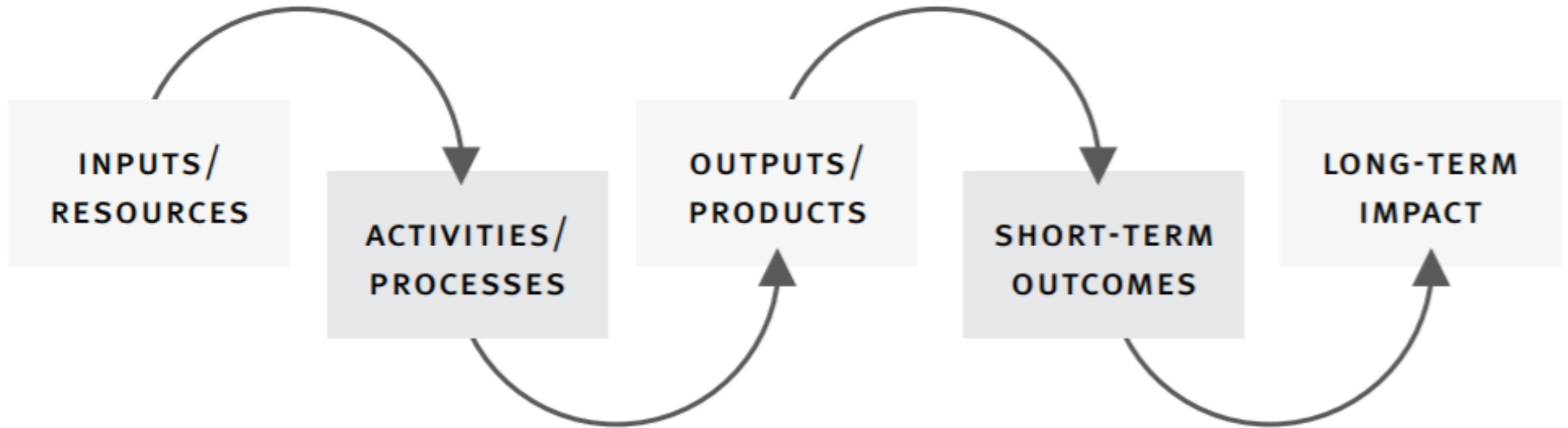
Strategies



Results

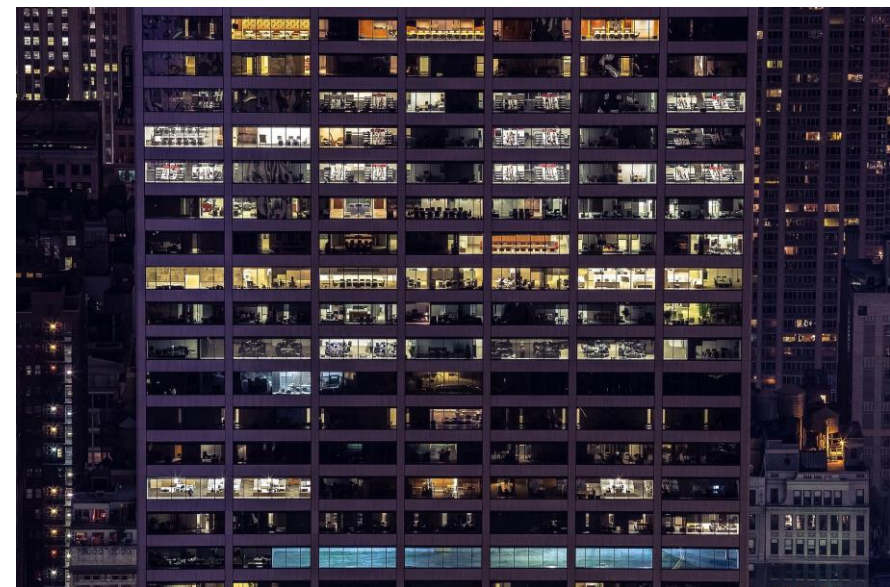


Program Logic Model



Patton (2014). *Evaluation Flash Cards*

Resources



Activities ➡ Outputs



Outcomes

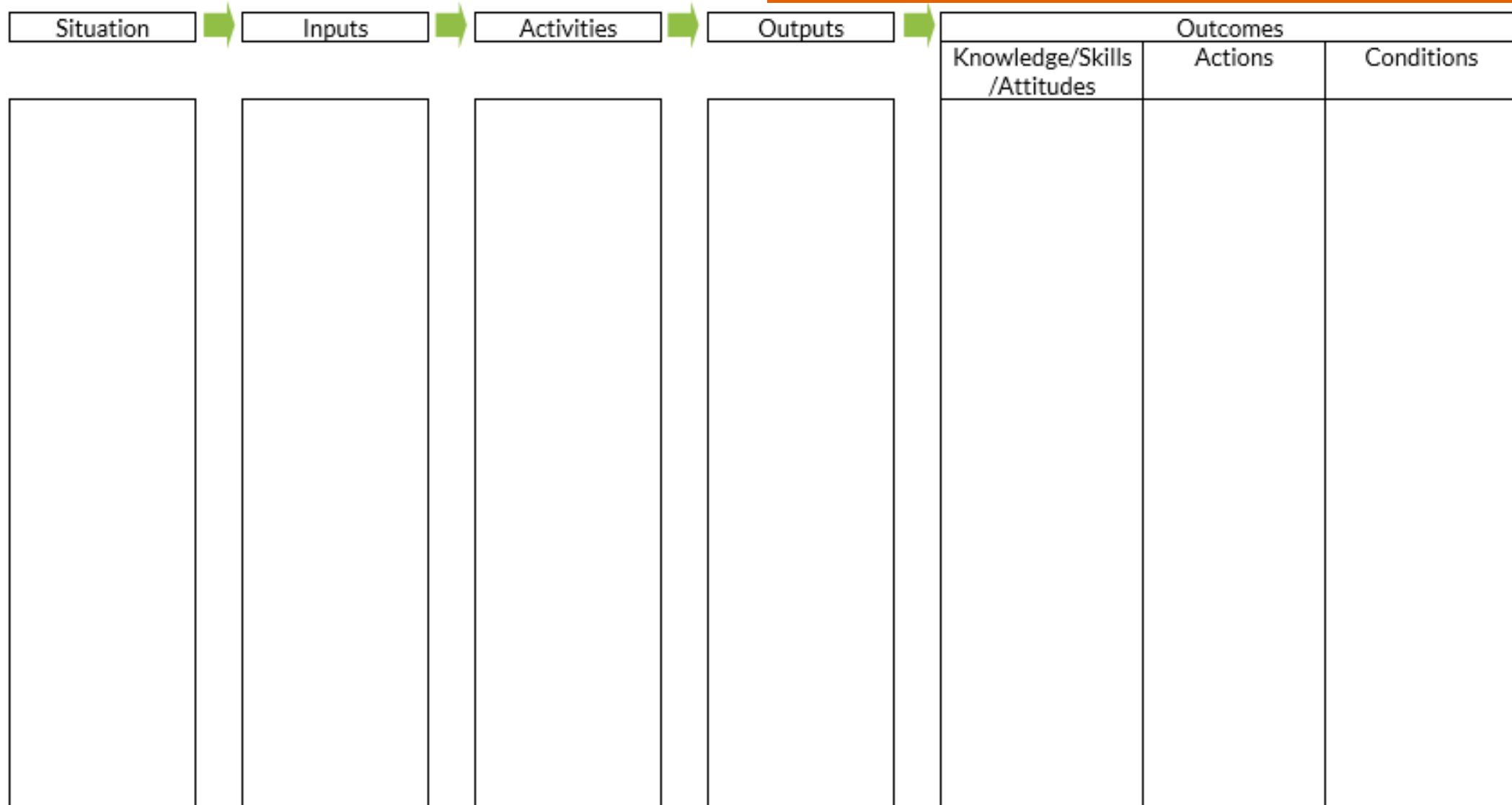
Leadership

Leadership is the

The individuals who are
a person who guides
the leaders are

Activity 3: Your Logic Model

LOGIC MODEL: Your Project



Evaluation Questions

Nonevaluative vs. Evaluative

What's so? vs. So what?

How many? How much?
vs.

How well? How worthwhile? How sustainable?

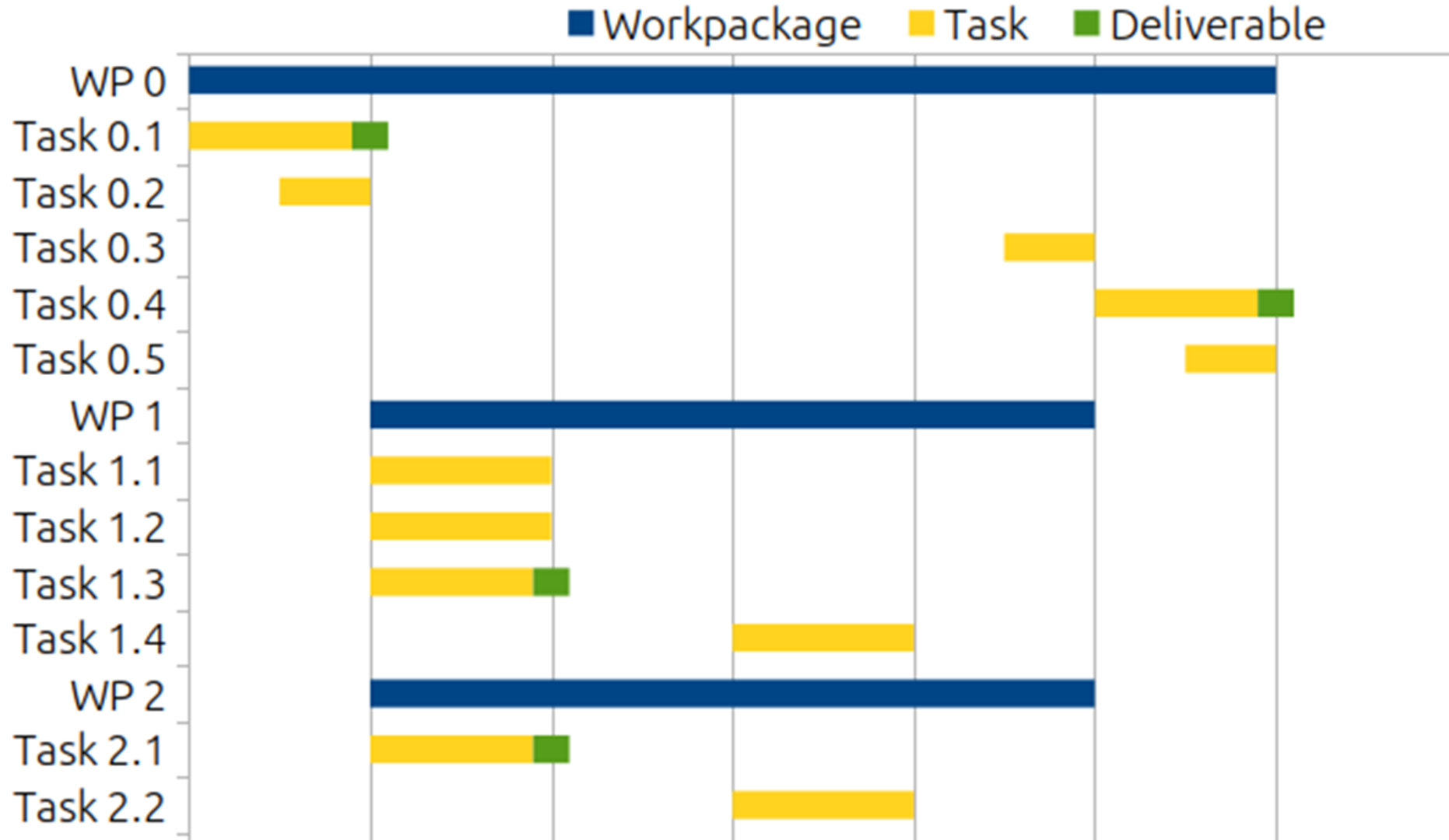
3 Key Evaluative Questions

1. What is the quality of the project (i.e., its content, design, & delivery)?
2. What is the value of the project to participants & the organization?
3. Was it worth implementing? Is it worth continuing to fund?

When? Evaluation Timetable

Data Source	Frequency
Pre- & post-surveys of STEM students	Beginning & end of year annually
Focus group with students	Once/year in 1 st 2 years of project
Survey of faculty & external mentors	Once/year
Interviews with key informants in administration & project staff	Once/year
Exit interviews with sample of students	End of degree in 4 th & 5 th years
Project & institutional documents	As available

Gantt Chart



Evaluation Timeline

Time	Evaluation Activities
Phase 1: January 2020	Examine documents & context of project Interviews with key informants about project history and context Study pertinent literature, materials, measures, data collection methods, & findings
February 2020	Develop evaluation rubric Facilitate conversation about project processes and outcomes Draft Theory of Change, evaluation criteria, and scale
March-April 2020	Collect & analyze institutional data Study & graphically represent 10 years of project data
Phase 2:	Develop measures Develop interview questions for students and survey for faculty
May 2020	Collect data Gather phone interviews with students Administer online survey with faculty
June 2020	Analyze data Determine best plan for analyses linked with evaluation questions and sample sizes Analyze and synthesize data Visualize data graphically
July-August 2020	Deliver annual report Write up technical report detailing methodology, findings and implications

Reach Out

Attributions

Icons from the Noun Project:

- ✓ Inspection by Template
- ✓ Car by Cho Nix
- ✓ Plane by Bakunetsu Kaito
- ✓ Planning by monkik
- ✓ Bicycle by Dan Draper

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