

MAPPING YOUR OWN THEORY OF CHANGE AND MEASUREMENT STRATEGY

Please review and fill out this worksheet together with any other members of your project team who are present! You will be asked to share out at the end. If you get stuck, please reach out to your TA during the small group session.

LEARNING OBJECTIVE

To better understand theory of change and measurement concepts. Specifically, to understand the importance of theory of change in deciding what research questions to ask, what data to collect, and what outcomes to measure. You will apply the concepts learned in the session to map out and/or further develop your own Theory of Change and measurement plan.

SUBJECTS COVERED

Theory of change, defining a hypothesis, selecting indicators, measuring outcomes, and measuring the impact of a program or policy.

DEVELOPING A RESEARCH QUESTION

Spend some time working on the following questions with your team or on your own:

1. What programs, policies, or interventions of your project could be evaluated, and/or which ones are you planning to evaluate?

2. An impact evaluation question usually takes the form: *What is the effect of [program, policy, or intervention] on [desired outcomes]?* Write an impact evaluation question for **one** of the identified programs, policies, or interventions from question 1.

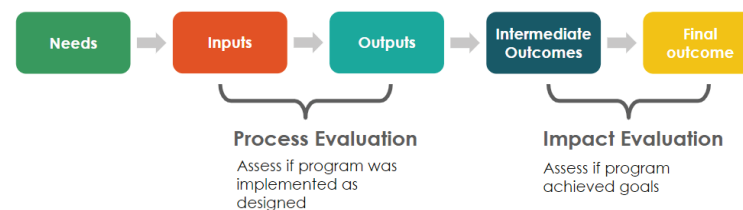
3. What are the political, practical, or ethical constraints that may present challenges to a randomized evaluation?

THEORY OF CHANGE

KEY VOCABULARY	
Hypothesis	A proposed explanation for the effects of a given intervention. We can think of this as a claim to be tested. Hypotheses are intended to be made prior to the implementation of the intervention. E.g. <i>Participating in a Summer Youth Employment Program (SYEP) will improve educational outcomes.</i>
Theory of Change	A comprehensive description of the pathways through which the intervention(s) could lead to an impact. A theory of change is a structured approach used in the design and evaluation of social programs. It maps the logical chain of how program inputs achieve changes in outcomes through activities and outputs.
Assumption	A precondition that underpins a theory of change or model. E.g. <i>Youth have access to transit needed to get to their SYEP site to attend the program. An assumption cannot always be directly observed or verified.</i>
Input	An activity carried out as part of a program or intervention. E.g. <i>Mentors are available to youth in the program.</i>
Output	A direct result in response to the inputs. E.g. <i>Youth meet with their mentors.</i>
Intermediate Outcomes	Observable changes or impacts caused by the program that are not the ultimate outcome of interest, but necessary along the way to achieving a final outcome. E.g. <i>Youth's perceptions about the value of school improve.</i>
Final Outcomes	Changes or impacts that are of ultimate interest to researchers and/or program implementers; these are often the overall goals of a program. E.g. <i>Increase in youth graduating from high school.</i>
Indicator	An observable metric used to measure an outcome. E.g. <i>Graduation rates.</i>
Instrument	The tool used to measure an indicator. E.g. <i>Roster of students in the 12th grade with their graduation status (credit accumulation, high school exam status).</i>

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A theory of change (ToC) identifies the causal link between the intervention and the final outcome.



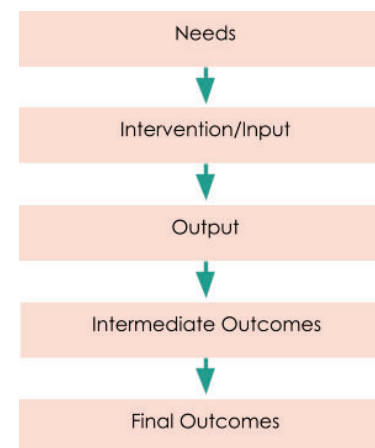
Note on commonly confused terms:

- An **output** is a direct action, result, or fact that is part of a program being implemented as planned.

For example: *"participants attend their SYEP jobs over the summer."*

- An **outcome** is an observable change (a.k.a. effect or impact) caused by the program, based on an indicator that you can measure.

For example: *"change in participant's emotional skills for conflict resolution."*



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MAPPING YOUR OWN THEORY OF CHANGE

Using the table below, draw out a causal chain (a Theory of Change) that connects the intervention to your expected intermediate and final outcomes.

Begin with the “theory of change” column (on the left). You will return to the “measurement” column later. Note: If you have already developed the Theory of Change for your intervention or project you can use it to fill out the below table to make sure you have each component.

	Theory of Change What happens at this step? What has to happen in order to get to the next step?	Measurement Indicators and data to provide information on this step of the theory of change.
Needs ↓		
Intervention/ Inputs ↓		

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Outputs ↓		
Intermediate Outcomes ↓		
Final Outcomes		

6

Ask yourself: What are the necessary conditions/assumptions underlying each stage of this Theory of Change? What needs to occur or be present for this chain to work? Please note any thoughts below.

MEASUREMENT: INDICATORS AND DATA COLLECTION

The ideal data collection plan measures indicators at every stage of the theory of change. Before deciding which data to collect, you need to:

- Clearly define the inputs, outputs, and outcomes you are targeting
- Identify the ways the intervention is thought to affect the outputs and outcomes

Defining a main hypothesis and theory of change at the beginning of an evaluation is a crucial step that will help you determine what data/information to collect.

For each step of the theory of change, you must identify indicators (what to measure) and instruments (tools for data collection, a.k.a. methods for measurement). If possible, you should also collect data to validate the assumptions underpinning your theory of change.

For every type of data and at every step of measurement, it is important to consider the participants' response process and how this and other factors may affect measurement.

Fill out the "Measurement" column on page 4 above by brainstorming indicators and data sources for each step in your theory of change. The following questions and information can guide you as you brainstorm.

4. Which indicators would you measure at each step of your theory of change? *You will need to identify possible indicators for measuring the inputs and outputs which will allow you to understand implementation (a process evaluation), whether your program is operating as planned. You will also need to identify indicators that will allow you to measure intermediate and longer term outcomes of your program (an impact evaluation).*

Please use questions a, b, c and d below to fill in the right side of the table above.

- a. What are the indicators for inputs and outputs of the program (process evaluation)?
- b. How would you measure intermediate outcomes (part of impact evaluation) as described in your theory of change? What are indicators for intermediate outcomes?
- c. What should you measure in order to assess whether the intervention has an impact on the final outcome(s) (impact evaluation)? What are indicators for the final outcomes?
- d. You may want to take into consideration RFA's Job Quality framework:
 - i. Which components of the framework are related to your intervention? (*Components: earnings, benefits, schedules, learning and development, safety and security, voice and representation, environment and culture, and purpose and meaning*) How do they show up in your Theory of Change and measurement plan?
 - ii. For each of the identified components, which are the key job quality questions and metrics/indicators that apply to your intervention? (*You can find [here](#) the metrics for each of the components*).

5. How would you identify and collect data for these indicators? (*Recall RFA's Measuring Job Quality training. The sources of data covered include: administrative data, commercial/employer data, performance data, statistical data, and crowdsources/individual insights*). What will this process look like?

6. What challenges might arise during the data collection, analysis, and measurement processes? And how will you review the data for your process and impact evaluations? *For example, think about the reliability and validity of how you have chosen to measure your indicators. What types of bias might your measurement strategies be vulnerable to? Who will develop the processes needed to access administrative data? Who will conduct the data analyses? Can these tasks be completed in house or will you need to partner with an external researcher?*

SHARE OUT INSTRUCTIONS

Each project team should share out some aspect of their theory of change/measurement plan. Be mindful of time, you may only have 1-2 minutes each!

If you're not sure what to talk about, use the following prompts:

- Share your hypothesis or research question.
- Talk through your theory of change!
- Share your measurement strategy for your outputs, intermediate outcomes and final outcomes.
- Talk through any areas where you got stuck and would like the group's input on.

NOTES