Module 1A

Frame the Problem

Learning Objectives
Determine your goal.
Determine how you will use data.
Form measurable questions.

SAVI

Prep

30 MIN

Handouts
Print 4 copies of Handout 1A-1

Data
None

Technology
One computer with projector

Setup
Tables and chairs for three groups of three to four each. Do not need individual workstations.

How to read this guide

- Each section of the lesson plan has a card or two guiding you through what to do or say.
- The lesson plan has lecture sections and group work sections.
- Cards also show learning objectives and the time allotted for that card.

Gray boxes are tips for the teacher. They might give a useful example to share, or tell you how to illustrate a concept.

Blue boxes are points where the class contributes to the conversation. You might ask for examples of a concept or solutions to a problem.

Lecture	Objective: Introductions, Curriculum Overview, What Will We Learn	5 MIN

Have each participant introduce themselves.

Provide the scope of what we are about learn.

- Before we start finding and using data, we need to figure out what we are trying to learn from the data. Before we figure out what we need to learn, we need to figure out what we are trying to accomplish.
- We are going to step back from the data and first identify goals, objectives, outputs, and outcomes.
- Then we will know enough to develop a measurable question.
- From there, we can learn to use data to answer that question.

Show how we define and develop goals, outcomes, and outputs.

- A goal is a broad statement that answers the question, “What does your organization hope to accomplish?” Goals are general, conceptual, and abstract. When describing your organizational or program/project goals, it helps to use “visionary” words such as create, develop, expand, increase, offer, promote, provide, serve, and strengthen.

Lecture	Objective: Learn about goals, outputs, and outcomes	15 MIN

Show how we define and develop goals, outputs, and outcomes.

- Walk through the definitions of these terms in slide 7. Show the examples on slide 8, the ask the class for examples (slide 9).

First, have the class come up with an example goal. This is be related to something realistic, preferably from their own work. Then have the class generate ideas for objectives, outputs, and outcomes from that goal.

- Goals are broad and visionary, not yet measurable.
- Objectives are measurable targets that align with the goal. If you meet these objectives, you will have met the goal.
- Outputs: Now that we have an objective, we know what we are trying to accomplish. Outputs identify how we are going to accomplish it. They are specific, measurable, concrete activities. They should specify what you plan to do, and they should allow you go back and see if you did it or not.
- Outcomes are similar to objectives, but they look back at what has happened, rather than setting a target for the future. Hopefully, if you have accomplished your output goals, the outcomes will echo the objectives and your goal will be accomplished. If not, an element needs to be adjusted.

Group Work — Objective: Identify goals, objectives, outputs, outcomes — 30 MIN

- Ask the class to get into three groups.
- They should choose a topic or problem that one of the group members is working on in real life. If the group does not have a problem or topic they want to work on, provide them with Hand 1A-1. They can choose an example topic from that sheet.

GROUPS WORK TOGETHER (15 MIN)

- Ask groups to discuss the problem and develop a goal that answers the question, "What does your organization hope to accomplish?"
- Groups should then work backwards from that goal to develop objectives, outputs, and outcomes.
- Encourage them to call you over if they need help.

While groups work together, listen to their conversations to see if they need help. Float from group to group to check progress and help them with their discussion.

CLASS OFFERS FEEDBACK (15 MIN)

- Have each group tell the glass what goal they decided on. They have 5 minutes each.
- Invite the class to offer feedback and questions. Make sure feedback is led by the rest of the class.

Take a break.

Lecture Objective: Learn how question types relate to data types **10 MIN**

Discuss slide 13. For each question type, their are vague examples.

Ask the class for ways to transform these vague questions into specific, measurable questions.

Ask the class how they would apply spatial data to these questions. Of course, "where" questions are well-suited for spatial analysis. But can mapping relate to who? How would spatial analysis help you answer "why" or "which?"

It should be up to the class to answer these questions, but if they need some help:
Maps can tell you "who" in a sense, because place is often part of identity.
Place could also indicate a lot of about "why." For example petty crimes may be more frequent in crowded areas, burglaries may be located in areas where there is more to steal. And "which" is often a locational question when it comes to implementing solutions. An optimal solution requires not just the right approach, but the right location.

After this discussion, mention the DPS Focus Areas as an example. The Department of Public Safety addressed many of these questions when developing these Focus Areas.

Lecture Objective: Practice forming measurable questions **20 MIN**

Provide the class with the example of the pocket park in Irvington.

- For context, this was the historic Irvington Post Office, but it was destroyed in a storm in 2013.
- This exercise let's the class consider measurable questions from two different perspectives, that of the grantee and that of the funder.
- Presumably, the grantee has a goal of building this park, but hopefully it would have broader goals, too. What might those goals be? What questions would help find evidence that this project addresses those goals?
- The funder has different goals. Overall, it has a goal to effectively target limited resources. So why should it fund this project instead of another? What questions would help the funder judge the priority of this project?
- Let's look back at the grantee again. We assumed their aim was to build a park. What if the data leads them to see that the park is not going to advance their overall goals? Should they be open to this possibility? Or is there room to disagree with the data, to override it?

Slide 20 shows the process of focusing a broad question into something specific and measurable. The key components are scope (geography and time) and normalization. Also, one question can inspire another. Encourage students to follow these ideas.

Group Work — Objective: Use previous group work to form measurable questions — 30 MIN

- Ask the class to get back into the same three groups.
- Using the goals, objectives, outputs, and outcomes they developed earlier, create measurable questions

GROUPS WORK TOGETHER (15 MIN)

- Groups should develop measurable questions related to their previous work. What questions would help them justify these goals, objectives, etc.? What questions would help inform objectives? And once those are in place, what questions would help target resources to meet those objectives and goals? The process can be iterative: goals inform questions and questions inform goals. In the next module, you will look for data to answer these questions.
- Encourage groups to call you over if they need help.

While groups work together, listen to their conversations to see if they need help. Float from group to group to check progress and help them with their discussion.

CLASS OFFERS FEEDBACK (15 MIN)

- Have each group present their ideas for measurable questions. They have 5 minutes each.
- Invite the class to offer feedback and questions. Make sure feedback is led by the rest of the class.

Any questions?