### **Essential Questions**

- How are we all experts of our lives, experiences, and communities?
- What are effective ways to collect community-based knowledge?

#### **Objectives** | Students will be able to...

- Understand the main components of surveying.
- Identify the strengths and weaknesses of surveys.
- Develop and peer-review survey questions.
- Develop a survey action plan.



- **Quantitative Data:** Information that can be counted or measured, and given a numerical value—such as length in centimeters or revenue in dollars.
- **Qualitative Data:** Information that is described in qualities and cannot be measured using numbers.
- Primary Data: Primary data is a type of data that is collected by researchers directly
  from main sources through interviews (first-hand accounts), surveys, counts (tallying up
  observations), experiments, etc. Primary data are usually collected from the
  source—where the data originally originates from and are regarded as the best kind of
  data in research. Primary data can be either qualitative or quantitative.
- **Survey:** A survey is a sampling (partial collection, since not everyone can be contacted) of facts, figures, or opinions that is used to reveal things about larger populations. Surveys can be conducted in-person, over the phone, or electronically.
- **Population:** A population is the full set of individuals who could potentially take part in your research (in this case, a survey).
- Sample: A sample is a subset of the population that is actually surveyed.
- Investigator: A researcher who develops, shares, and analyzes a survey.
- **Respondent:** Someone who completes a survey.
- Biased Question: Biased questions are those that lead the respondents towards a specific response, even if it does not accurately reflect their own circumstances or beliefs. Biased questions also refer to questions that are vague and unclear, leaving the respondents confused.
- Double-Barreled Question: This is a question that asks about two or more issues but leaves room for just a single answer. This leads to inaccuracies in survey results because respondents can only answer one of the two questions and have no way of indicating which they responded to.



**Facilitator Tip:** If you have a limited number of classes to spend on Module 2, you can combine this lesson with *Lesson 4: Interviewing Stakeholders*. If you do this, half the students could focus on preparing for the interview(s) and the other half could work on developing the survey. Remember that Y-PLAN College Mentors can help facilitate these preparations!

#### **Steps**

- 1. <u>Welcome Y-PLAN College Mentors</u>: If College Mentors participate in this lesson, allow them to introduce themselves. A quick icebreaker activity could entail the 'Warm Up' below or something the Mentors have in mind. Another option is to simply have everyone share one of the following:
  - Their favorite aspect of the city/area (a place, sports team, etc.)
  - A fun fact about themselves
- 2. <u>Warm Up</u>: Have students move around the classroom and ask around ten classmates/College Mentors a simple survey question, recording their responses. Then, briefly discuss students' findings and if there were surprising results.
  - Example Question: How do you normally get to school (walk, bike, scooter/skateboard, car, bus, train)?
- **3.** Review Concept of Surveying: If you covered this in previous lessons, you can keep this review relatively brief!
  - Surveys are a series of questions that a large number of people answer. All respondents receive the exact same questions.
  - Surveys can be conducted in-person, over the phone, or electronically.
  - Surveying is a great way to discover what a large number of people think about a particular issue or how a group of people report their behavior.
  - A survey collects information from a **sample** (partial collection, since not everyone can be contacted) of facts, figures, or opinions that is used to reveal things about a larger **population**.

**Facilitator Tip:** Even if you covered this example in *Lesson 3: Primary Data Collection*, it can remind students about how to differentiate between survey 'samples' and 'populations.' Let's say you survey 100 people (sample) in a town of 1,000 residents (total population). If 80 of the survey respondents (80% of sample) said they like the town's parks and 20 respondents (20% of sample) said they *do not* like the town's parks, you could argue that roughly 80% (800 people) of the total population likes the town's parks and 20% (200 people) of the total population *does not* like the town's parks. There is no way to be *completely* sure of this claim without surveying every single resident, but you can probably assume that most people *do* like the town's parks.

- Do you think the sample would accurately represent the entire population if 77 of the 100 respondents were members of the town's Park Appreciation Club?
- How do you think this would affect the data?
- What steps could be taken to make the sample more representative of the population?



### 4. Explain Strengths & Weaknesses:

### Strengths

- Surveys are effective at measuring opinions
- They are inexpensive and quick to administer
- Closed-ended questions make comparison and analysis relatively easy (surveys often include a few open-ended questions though)
- Quantitative data from surveys can be shown in graphs/charts, allowing you to visually explain patterns
- Certain types of surveys (e.g. Google Forms) allow respondents to be anonymous, which makes it more likely that they will answer honestly

#### Weaknesses

- Without taking steps to 'randomize' the sample, there is a chance that respondents are biased/are of a similar demographic and are not representative of the population
- Requires a significant number of respondents to complete survey, otherwise it is probably less representative of the **population**
- If a population is frequently surveyed, people may experience 'survey fatigue,' which makes them less likely to participate or complete surveys carefully
- Some respondents may misunderstand certain questions or leave some unanswered
- With surveys, it is harder to capture emotions or nuance as well as qualitative methods like interviewing
- **5.** Review Question Types: Before reviewing these, first ask: Does anyone remember the three basic question types that we covered in Lesson 3: Primary Data Collection?
  - **Multiple Choice:** This is the most popular type of questions that are used in surveys. They provide respondents with a list of options to choose from. It is up to the researcher to decide whether a question should require respondents to choose a single response ("Yes," "No") or be able to select several options.
  - Likert Scale: 'Likert scale' sometimes referred to as 'ordinal scale' questions are used to measure respondents' attitudes, perceptions, and opinions about a certain topic. They can choose one of several, ordered responses. A common example of these options are: "Very Good," "Good," "Average," "Bad," and "Very Bad."
  - Open-Ended: Unlike the previous two question types, open-ended questions are
    qualitative and allow people to give answers in their own words. While using
    these can be extremely valuable, the data it reveals is not numerical and can
    therefore be harder to analyze. When used in a survey, there is a space for
    respondents to write/type their thoughts. Most interviews only include
    open-ended questions.



- **6.** <u>Discuss Components of Interviews</u>: Ask students what they think the components of a survey are. Who is involved? What materials will you need? How exactly will you prepare?
  - Investigators
  - Respondents (sample of a larger population)
  - Background Research
  - Survey (questions printed documents, electronic versions, etc.)
  - Pencils & Printed Surveys (if conducted in-person)
  - Strategy to Share/Conduct Survey
  - Post-Survey Analysis
- 7. <u>Distribute & Explain Handout</u>: Provide each student with an <u>'Surveying Stakeholders'</u> worksheet and go over its instructions.
- 8. <u>Break Into Small Groups</u>: Divide students into their small teams (from 'Site Mapping'/site visit) and have them complete their worksheets together. Make sure that each group selects someone whose worksheet will compile their ideas and later be shared with another group. Remind students that this 'scribe' should ideally be someone with neat handwriting.
- 9. Have Other Teams Provide Feedback: Have students swap their questions with another group to get feedback on whether they are unclear, biased, double-barreled, etc. Once teams use this input to revise their questions, you can compile their ideas using <u>Survey</u> <u>Question Brainstorm</u>.
- **10.** <u>Create Action Plan</u>: Discuss worksheet's 'action plan' section and identify next steps for making a *single* survey.

#### **Facilitator Tips:**

- Electronic surveys (e.g. Google Forms) are often easier to administer. Even if you and your students decide to primarily rely on an electronic survey, conducting a handful of in-person surveys can be helpful, as they can reach other demographics (e.g. those without access to computers/smartphones). Conveniently, you can print Google Forms!
- In order to increase the number of people who complete an electronic survey, you can add custom 'OR codes' to printed flyers. People can scan the codes with their phone cameras and be directed to the electronic survey!
- It is quite unlikely that you can cover all of this content *and* finalize survey questions in a single lesson, so it is perfectly okay to cover the last step (below) on a different day!
- **11.** <u>Create Survey</u>: Following the 'action plan' steps that you and your students settled on, it is now time to make the survey (finalizing questions, determining their order, etc.). During this process you can show your students:
  - The Using Digital Tools slide deck, which explains how to use Google Forms
  - The <u>Student-Made Community Survey</u>, which is a survey that past Y-PLAN students created
  - The [TEMPLATE] Community Survey, which students can make a copy of and use to make their own survey

