

Do you think you're middle class? If you're American, there's a pretty good chance that you do. In a survey conducted by the Pew Research Center in 2015, 87% of those surveyed identified themselves as middle class. That's a pretty big middle. But your intuition about what the middle class is, like who it includes, and what constitutes a middle-class lifestyle, probably isn't the full picture. And a lot of questions that sociologists try to answer are questions just like this, questions that you think you know the answer to already. Many a person has played the armchair sociologist at some point in their lives, spouting off about how they think society really works because of their own experience. Or the experience of their friends, brothers, roommate. We all do it, but having personal opinions about the world doesn't make you a sociologist, sorry. This is where sociological research comes in. It helps us understand society's patterns, even when they go against our intuitions. Rather than using our gut to answer questions, we use a research method, a systematic plan for gathering and analyzing observations about the world. This is where we're gonna learn how to do sociology. [Music].

First things first, research starts with a question. And the key to deciding on a question is defining the concepts that you're studying and making sure that both you and your audience agree on what those concepts mean. It's like that thing with *The Dress*. Some people thought it looked black and blue, and other people thought it looked white and gold. It turns out that some things that seem totally objective just aren't. And this becomes infinitely more complicated when you replace the concepts of blue or gold with concepts like the economy, poverty, parenting, education, or love. So, what if the way I am defining poverty isn't how you're imagining poverty? What if we're all seeing different levels of well-being as being poor, but we refer to them all as poverty? That won't work. So you have to define your concepts, which becomes even more important when you get to the next part of the research process. Stating a hypothesis; A statement of a possible relationship between two variables. A variable is just something that can take on many different values, it varies, hence, the name.

So, before you can assign a value to a variable, you have to operationalize it. That is, you have to define the exact variable you're going to measure, and exactly how you will measure it. For example, you can operationalize a variable that you want to use to understand relationships, by defining it as "reported marital status." Only then can you assign each person in your sample a number corresponding to their relationship status. Like 0 if they're married, 1 if they're divorced, 2 if they've never been married, etc., etc., until every person is labelled. And what value a variable takes on is called its measurement. You can measure someone's height, you can measure someone's income, and you can measure someone's relationship status. It doesn't matter how many categories your variable has: 0, 1, 2, 3, 4 whatever. What's important is that the way you define your categories is both reliable and valid. Suppose you decide to use Facebook relationship status as your measure of relationship status among your subjects. For your measurement to be reliable, you have to be consistent in how you measure the variable. So, here's what not to do: Say you have two categories for relationship status: Single or Not Single. Two different sociologists are going through the data, assigning values based on Facebook status. One decides that people who say "It's Complicated" get the label "Not Single," while the other decides that these people should be called "Single." That's not consistent. Every person with the same characteristics, in this case, the same relationship status needs to be assigned the same value. And for your measurement to be valid, it has to actually measure something that directly reflects the concept that you're trying to study.

Facebook relationship status may be a useful measure of whether someone's single or not, but it's not a valid measure of, say, their political views. Once you know how you want to measure your variables,

your hypothesis will be an educated guess about how they're related often using an if-then statement. Here's an example of a hypothesis, based on what I was talking about earlier: If someone lives in a city, then they are less likely to refer to themselves as middle class. In this case, geographic location is what we call the independent variable. It's the variable that we think is affecting the change in how people describe themselves. But you can also have variables that you believe are affected by changes in your independent variable, these are your dependent variables. Your hypothesis is that they change when the independent variable changes. But you have to be careful because correlation does not always equal causation. Correlation is what happens when two variables move together. It can be easy to misinterpret a correlation to conclude that one thing causes the other, when it really doesn't. For example, murder rates tend to be high when ice cream sales are high. But it's ridiculous to think that more ice cream causes more violence or vice versa. What's missing is a third variable, heat. More people commit crimes during hot months, and more people buy ice cream then too.

Okay, once you have your hypothesis and you know what types of variables you need to test it, you're at your next step, collecting your data. There are four main ways that sociologists collect data, experiments, surveys, participant observation, and existing resources. Experiments in sociology work much as they do in the natural sciences, just with humans as subjects instead of mice or atoms of beryllium. Let's go to the Thought Bubble to see a real-life example of how a sociology experiment works! In the 1990s, the US Department of Housing and Urban Development conducted an experiment known as The Moving to Opportunity study. In it, social scientists randomly assigned low-income families into a control group or one of two experimental groups. One group was a control group, which means nothing was changed in their environments. This allowed for a comparison between them and the experimental groups. They received a housing voucher that allowed them to move to cheaper housing, often in a better neighborhood than they were currently in if they wanted to. Then, a whole bunch of data was collected and is still being collected on many different short and long term outcomes, including earnings, children's educations, and health outcomes. These outcomes are the experiment's dependent variables.

So, we have one independent variable, receiving the voucher or not and a bunch of possible dependent variables, like earnings, education, and health outcomes. In an experiment, if the change you predicted occurs for the experimental group but not for the control group, then your experiment supports your hypothesis. And in the HUD experiment, sociologists compared how the measures of well-being changed for the control group, compared to those for the experimental group. One of the findings; those who received a voucher had better mental health outcomes, such as lower rates of depression than those who didn't. The data from Moving to Opportunity continues to be studied to this day and is a key source of research into how neighborhoods affect families' well-being. Thanks, Thought Bubble!

The second method that researchers use is a survey, where people respond to a set of prepared questions. Typically, researchers are interested in the responses of a specific group of people, what we call the population of interest. Women aged 18 to 35, veterans, left-handed people, YouTubers, whoever your research question is about, this is your population. But it's unlikely you'll be able to survey the whole population. Even government-run surveys, like the census, don't reach everyone. So instead, you survey a sample, a smaller group that's representative of the population. And a survey can take many forms, there can be open-ended questions, or Yes or No questions. The questions can appear in many different orders, or be phrased in different ways. So, sociologists have to think carefully about these things and about whether the structure of their survey might bias the respondents' answers. Now,

some research takes place in a much less controlled environment. Tons of sociology research is done in the field through our third method, participant observation.

Participant observation is when researchers observe people by joining them in their daily routines. The result of this type of research is called an ethnography. Researchers try to integrate themselves into a community, hanging out with their subjects, working with them, and so on. They're both observers and participants. This type of data collection tends to be exploratory and descriptive. You're not trying to prove a specific hypothesis. Instead, you're trying to understand the lifestyle of your subject. Some say that this type of research is too subjective, but a major benefit of doing fieldwork is that it lets you gain insights into people's behavior, in the real world, in a way that experiments won't. Take, for example, sociologist Alice Goffman's field work in Philadelphia. She spent six years living in a low-income, crime-ridden neighborhood in West Philadelphia where she befriended and lived with two young African American men and documented the ways the criminal justice system intersected and disrupted the lives of them, their families, and other members of the neighborhood. The documentation of lived experience like that can provide insights that you just couldn't get simply from looking at statistics.

Now, there's one thing that's important to note about these three types of research. When researchers interact with their subjects, whether it's through an experiment, an interview, or participant observation, they have to take seriously the ethics of their research. Sociologists are answerable to an Institutional Review Board, which ensures that all researchers take the privacy and well-being of their subjects into consideration when they design their research methods. For example, informed consent of the subject is a must. This means that your subjects must know you're observing them, and must be made aware of any risks that they take by being part of your study. Not all research methods require you to interact with your subjects though, or even collect your own data. Many sociologists analyze existing sources of data, collected by others. The most common of these sources is government agencies, which collect statistics on income, health, education, employment, marriage, fertility, I could keep going. The point is, these data sets are much larger and cover more years than an individual researcher could collect on their own. Plus, it saves time and money for the researcher. Once you've collected your data using one of these methods, the final step is turning that data into information that helps answer your question of interest.

You can do this in two ways; through inductive or deductive logical thought. Inductive logical thought takes your observations and uses them to build a theory. You start with data and then use them to form an idea about how the world works. For example, seeing the results of the Moving to Opportunity study might prompt a researcher to theorize that the neighborhood a person lives in is a key factor in their mental health. Deductive logical thought, meanwhile, uses an existing theory to inform the hypothesis you test. In this case, you start with a theory and you collect data that allows you to test the theory. Theories about the relationship between where you live and your child's well-being is part of what prompted the government to not just collect data on the heads of household in the HUD study, but also on their children. And these two types of reasoning are not mutually exclusive; within one study, a researcher will use both to develop theories about the social world.

And guess what? You're done! Today we discussed the research method, form a question and a hypothesis, collect data, and analyze that data to contribute to your theories about society. Crash Course Sociology is filmed in the Dr. Cheryl C. Kinney Studio in Missoula, Montana, and it's made with

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