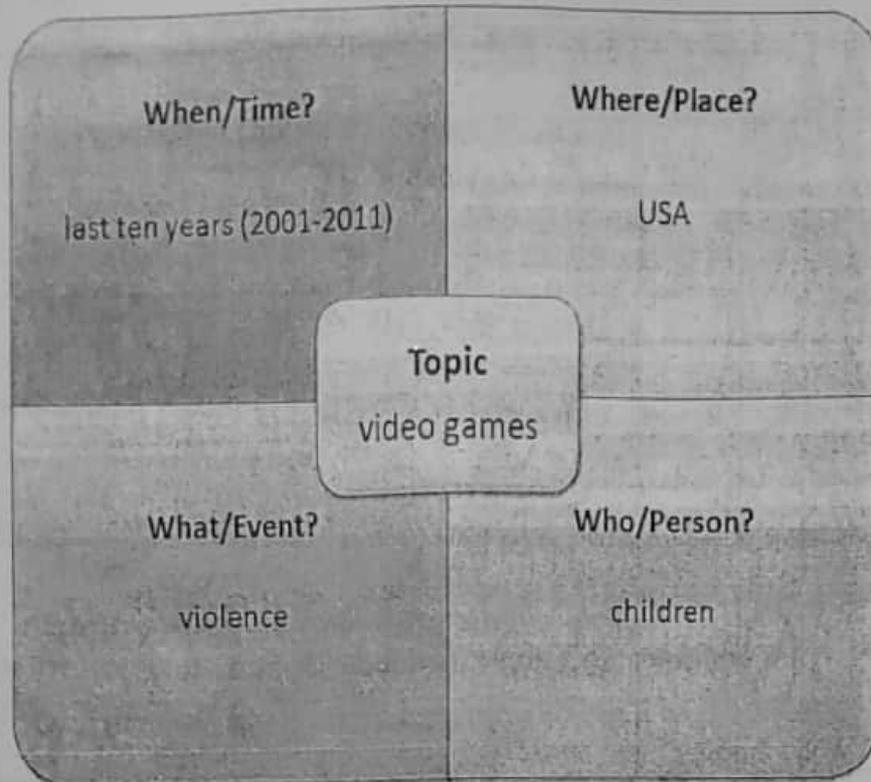
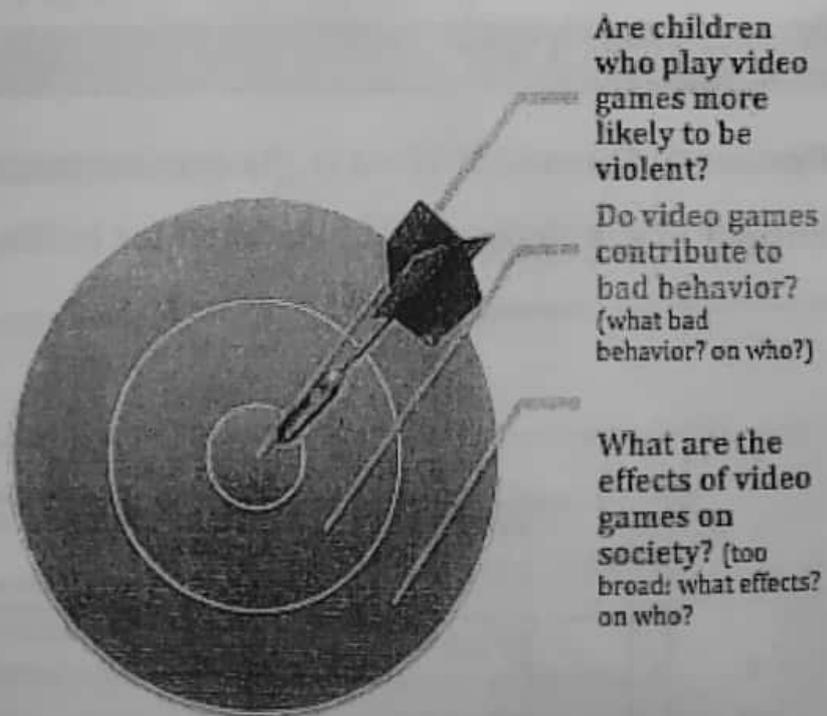


Research Question: Are children who play video games more likely to be violent?



Developing a Research Question



Example Question #2

Research Question: How does divorce influence children's social development?

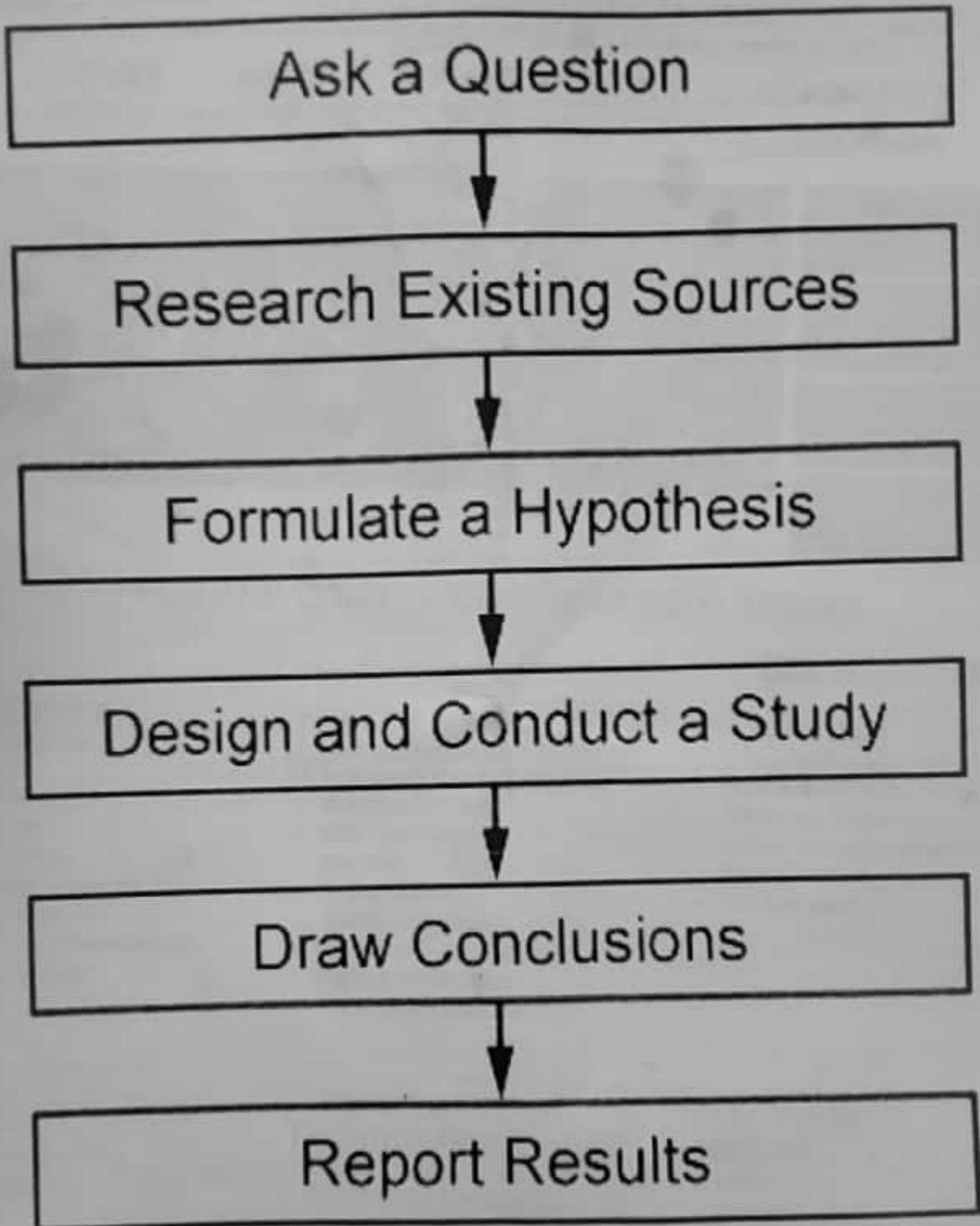
	A hit!	How does divorce influence children's social development?
	Close!	What effect does divorce have on children? (what effect?)
	Miss!	How will the aftermath of divorce affect humanity? (too broad: what aspect? who?)

Example Question #3

Research Question: What is the environmental impact of the disposal of plastic water bottles?

	A hit!	What is the environmental impact of plastic water bottles?
	Close!	What is the impact of bottled water on the environment? (What aspect of bottled water?)
	Miss!	How does trash pollute the environment? (too broad: What kind of trash?)

The Scientific Method





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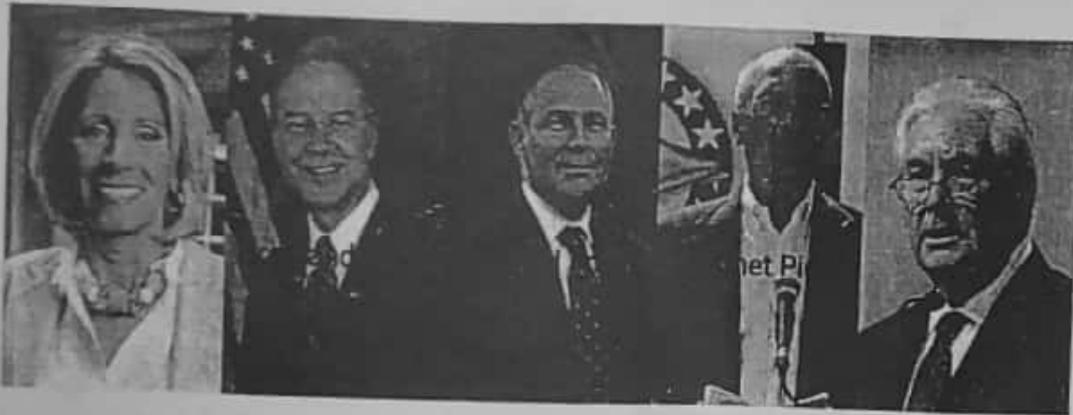
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- 2 Gun Control
- 3 Animal Testing
- 4 Death Penalty
- 5 School Uniforms
- 6 Drinking Age - Lower It?
- 7 Minimum Wage
- 8 Euthanasia & Assisted Suicide
- 9 Illegal Immigration
- 10 Abortion

HEALTH & MEDICINE

- 1 Medical Marijuana
- 2 Euthanasia & Assisted Suicide
- 3 Vaccines for Kids
- 4 Milk - Is It Healthy?
- 5 Abortion
- 6 Vegetarianism
- 7 Obesity a Disease?
- 8 Obamacare - Good or Bad?
- 9 Right to Health Care
- 10 Prescription Drug Ads

EDUCATION

- 1 School Uniforms
- 2 Standardized Tests
- 3 Tablets vs. Textbooks
- 4 College Education Worth It?
- 5 D.A.R.E. - Good or Bad?
- 6 Teacher Tenure

POLITICS

- 1 Death Penalty
- 2 Drinking Age - Lower It?
- 3 Illegal Immigration
- 4 Gun Control
- 5 ACLU - Good or Bad?
- 6 Concealed Handguns
- 7 Social Security Privatization
- 8 Under God in the Pledge

SCIENCE & TECHNOLOGY

- 1 Animal Testing
- 2 Cell Phones - Are They Safe?
- 3 Alternative Energy vs Fossil Fuels
- 4 Climate Change

ELECTIONS & PRESIDENTS

- 1 Felon Voting
- 2 Ronald Reagan
- 3 Bill Clinton
- 4 Voting Machines

Defining a sociological problem helps frame a question to be addressed in the research process.

LEARNING OBJECTIVE

- Explain how the definition of the problem relates to the research process

KEY POINTS

- The first step of the scientific method is to ask a question, describe a problem, and identify the specific area of interest. The topic should be narrow enough to study within the context of a particular test but also broad enough to have a more general practical or theoretical merit.
- For many sociologists, the goal is to conduct research which may be applied directly to social policy and welfare, while others focus primarily on refining the theoretical understanding of social processes. Subject matter ranges from the micro level to the macro level.
- Like other sciences, sociology relies on the systematic, careful collection of measurements or counts of relevant quantities to be considered valid. Given that sociology deals with topics that are often difficult to measure, this generally involves operationalizing relevant terms.

KEY TERMS

- **operationalization**

- noun
- ~~delete~~

In humanities, operationalization is the process of defining a fuzzy concept so as to make the concept clearly distinguishable or measurable and to understand it in terms of empirical observations.

- **operational definition**

- noun
- ~~delete~~

BRIEF

A hypothesis is a potential answer to your research question; the research process helps you determine if your hypothesis is true.

LEARNING OBJECTIVE

- Explain how hypotheses are used in sociological research and the difference between dependent and independent variables

KEY POINTS

- Hypotheses are testable explanations of a problem, phenomenon, or observation.
- Both quantitative and qualitative research involve formulating a hypothesis to address the research problem.
- Hypotheses that suggest a causal relationship involve at least one independent variable and at least one dependent variable; in other words, one variable which is presumed to affect the other.
- An independent variable is one whose value is manipulated by the researcher or experimenter.
- A dependent variable is a variable whose values are presumed to change as a result of changes in the independent variable.

KEY TERMS

- **hypothesis**

- noun

- delete

Used loosely, a tentative conjecture explaining an observation, phenomenon, or scientific problem that can be tested by further observation, investigation, or experimentation.

- **dependent variable**

- o noun
- o [delete](#)

In an equation, the variable whose value depends on one or more variables in the equation.

- o **independent variable**

- o noun
- o [delete](#)

In an equation, any variable whose value is not dependent on any other in the equation.

- To add additional key terms, select them in the full text and click the button.

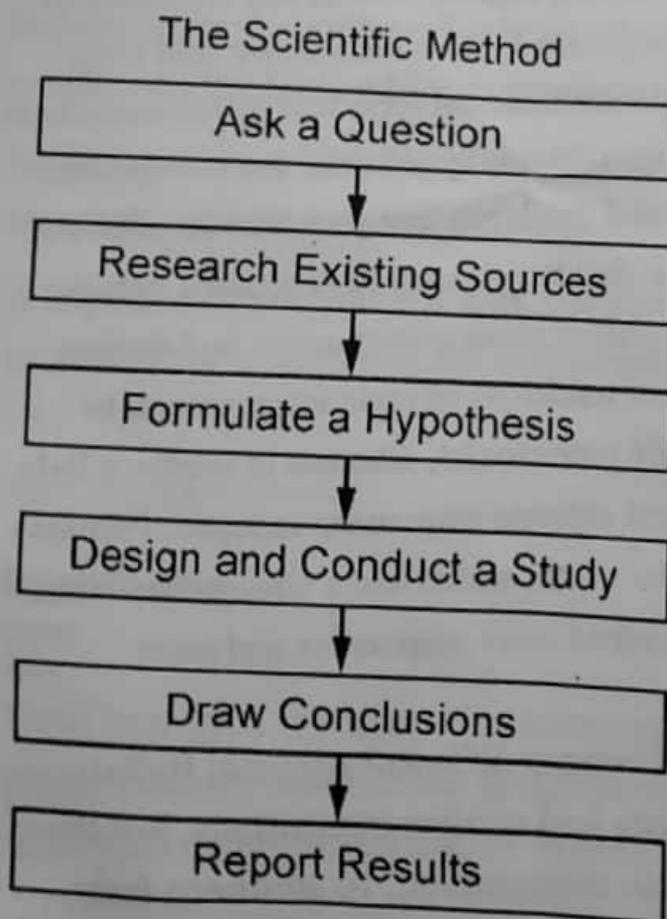
EXAMPLES

- In his book *Making Democracy Work*, Robert Putnam developed a theory that social capital makes government more responsive. To demonstrate his theory, he tested several hypotheses about the ways that social capital influences government. One of his hypotheses was that regions with strong traditions of civic engagement would have more responsive, more democratic, and more efficient governments, regardless of the institutional form that government took. This is an example of a causal hypothesis. In this hypothesis, the independent (causal) variable is civic engagement and the dependent variables (or effects) are the qualities of government. To test this hypothesis, he compared twenty different regional Italian governments. All of these governments had similar institutions, but the regions had different traditions of civic engagement. In southern Italy, politics were traditionally patrimonial, whereas in northern Italy, politics were traditionally more open and citizens were more engaged. Putnam's evidence supported his hypothesis: in the north, which had a stronger tradition of civic engagement, government was indeed more responsive and more democratic.
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were traditionally more open and citizens were more engaged. Putnam's evidence supported his hypothesis: in the north, which had a stronger tradition of civic engagement, government was indeed more responsive and more democratic.

FULL TEXT

A hypothesis is an assumption or suggested explanation about how two or more variables are related. It is a crucial step in the scientific method and, therefore, a vital aspect of all scientific research. There are no definitive guidelines for the production of new hypotheses. The history of science is filled with stories of scientists claiming a flash of inspiration, or a hunch, which then motivated them to look for evidence to support or refute the idea.



The Scientific Method is an Essential Tool in Research

This image lists the various stages of the scientific method.

While there is no single way to develop a hypothesis, a useful hypothesis will use deductive reasoning to make predictions that can be experimentally assessed. If results contradict the predictions, then the hypothesis under examination is incorrect or incomplete and must be revised or abandoned. If results confirm the predictions, then the hypothesis might be correct but is still subject to further testing.

Both quantitative and qualitative research involve formulating a hypothesis to address the research problem. A hypothesis will generally provide a causal explanation or propose some association between two variables. Variables are measurable phenomena whose values can change under different conditions. For example, if the hypothesis is a causal explanation, it will involve at least one dependent variable and one independent variable. In research, independent variables are the cause of the change. The dependent variable is the effect, or thing that is changed. In other words, the value of a dependent variable depends on the value of the independent variable. Of course, this assumes that there is an actual relationship between the two variables. If there is no relationship, then the value of the dependent variable does not depend on the value of the independent variable.

SOURCES

- **independent variable**
http://en.wiktionary.org/wiki/independent_variable
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- **hypothesis**
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- **dependent variable**
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Research Approaches

- Exploratory - what you want to explain
- Descriptive - what are you trying to describe
- Causal - what is the cause of the result -
- Combination -