



# Research Methods in Social Psychology

## Instructor Manual

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The Research Methods in Social Psychology module introduces students to basic definitions, concepts, and empirical methodology used in the social psychology research. This instructor's manual module provides some information to help you craft a class lesson for your students to help keep them interested and engaged in this material. The accompanying PowerPoint presentation provides material which includes content, activities, and a video. This instructor's manual also contains other outside resources and information that may help you create a great unit of your course about research methods in social psychology.

## Learning Objectives

### Content Specific Learning Objectives:

- Describe the key features of basic and complex experimental designs.
- Describe the key features of field experiments, naturalistic observation, and experience sampling techniques.
- Describe survey research and explain the importance of obtaining a representative sample.
- Describe the implicit association test and the use of priming.
- Describe use of archival research techniques.
- Explain five principles of ethical research that concern social psychologists the most.

### Relevant APA Learning Objectives (Version 2.0):

- Engage in innovative and integrative thinking and problem solving (2.3)
- Interpret, design, and conduct basic psychological research (2.4)
- Incorporate sociocultural factors in scientific inquiry (2.5)
- Apply ethical standards to evaluate psychological science and practice (3.1)
- Apply psychological content and skills to career goals (5.1)

## Abstract

Social psychologists are interested in the ways that other people affect thought, emotion, and behavior. To explore these concepts requires special research methods. Following a brief overview of traditional research designs, this module introduces how complex experimental designs, field experiments, naturalistic observation, experience sampling techniques, survey research, subtle and nonconscious techniques such as priming, archival research and the use of big data may each be adapted to address social psychological questions. This module also discusses the importance of obtaining a representative sample along with some ethical considerations that social psychologists face.

## Class Design Recommendations

This material could be covered in a single 50-75-minute class period. Please refer to the Noba PowerPoint and the Lecture Framework below for specific details.

- Warm-Up Activity: Researching “flirting”
- How Scientists Think
  - The habit of observation
  - Generating hypotheses
- Research Issues
  - Measurement
  - Ethics
  - WEIRD samples

- Types of Research Methods
  - Laboratory experiments
  - Field study
  - Survey
  - Nonconscious approaches to research
  - Archival research
- CAT: The Muddiest Point

## Module Outline

- **Introduction to research methods in social psychology:** Chances are, this will not be your students' first exposure to this material. Many will have covered the same or similar material in Introduction to Psychology, Research Methods, or even in other topic courses. While repetition can help to solidify learning, some students may enter class rolling their eyes and with an "I know this already" attitude. It may be helpful to address any disengagement or misgivings about redundancy at the outset.
  - It may be equally helpful to your students to learn that the research methods presented in this module are done so specifically in the context of social psychology. That is, they are not simply learning (again) about methods, but about how methods are uniquely adapted for social psychology topics. Many of the most famous studies in psychology—those by Asch, Milgram, or Zimbardo, for instance—are, in fact in social psychology. This is because social psychology offers the opportunity to explore complex interactions in, perhaps, the most common and easiest-to-relate-to area of psychology.
  - This module covers a variety of interesting research that may be less well-known to students, including psychology majors. Key research explored in this module includes Norman Triplett's classic study on social facilitation, research on "culture of honor," Terror Management Theory, and the controversial Facebook emotion study.
- **Thinking like a scientist:** While most coverage of research methods focuses heavily on the technical aspects such as causality, independent variables and social desirability, this module offers fresh insights into the ways that scientists think. The best scientists

throughout history have been, at their core, keen observers of life. Tycho Brahe carefully observed the apparent movement of stars in the sky, Karl von Frisch observed the waggle dance of honeybees, Jane Goodall observed the relationships among chimpanzees. The same is true of social psychologists. Typically, they are able to generate hypotheses because they have a habit of looking out for the unusual, the confusing, or the curious in the social world. In this way, they are not all that different from stand-up comedians who, similarly, notice the world around them. But where comedians turn their observations into humorous commentary (“Why do recordings of whales sound so sad? Are they depressed?”) scientists seek to explore these observations further through the development of questions.

- In some sense, social psychology—and all of science—is as much about the development of good questions as it is about exploring possible answers and explanations. This is a great point for engaging students. Over the course of the term, they can develop the habit of noticing social behavior, especially in the form of questions: What might explain hypocrisy? What do people consider “lying”? When do people typically touch each other in everyday social interactions? Are emotions contagious? These questions lead to the development of testable hypotheses. It is worth pointing out that scientists also generate interesting questions and hypotheses from reading published research. Some findings are incomplete, or need to be generalized, or are conflicting, and these are sources of research curiosity as well.
- **Ethics:** Although ethics may be a topic that has been covered in earlier coursework this is an opportunity to expose students to ethics in a social psychology context and to fill in any gaps in knowledge. Although many students are aware of informed consent, debriefing, and basic topics in ethics a surprising number of upper level students—including psychology majors—do not understand the ethics process. This is an opportunity for you to describe the IRB process: applications, review, and primary ethical concerns including harm-benefit ratios and deceit. It is an opportunity for you to have students try their own hand at reviewing research from an ethical point of view (see activity below).
- **Research methods in social psychology studies**
  - *Laboratory*—The laboratory experiment is often referred to as the gold standard in science. This is because the artificial environment of the lab allows researchers to *control variables* and *determine causality*. In order for laboratory experiments to work, participants must be *randomly assigned* to conditions.
  - *Field Study*—While laboratory experiments are helpful they suffer from a drawback: It is difficult to determine how participant behavior in the lab would generalize to more

complex real world situations (*ecological validity*). Field studies—including *field experiments* and *naturalistic observation*—are ways social psychologists can overcome this limitation.

- *Survey*—Surveys are, perhaps, the most familiar of all research methods. People of all backgrounds are exposed to attitude surveys such as political polls and self-report surveys such as customer satisfaction measures. Surveys are relatively inexpensive to administer and are hugely scalable. The Gallup World Poll, for instance, has collected demographically representative samples of people from more than 140 nations.
- *Non-conscious methods*— Priming studies and the Implicit Attitudes Test are two ways to explore non-conscious attitudes and behavior. This can be especially helpful for studying topics that may be plagued by socially desirable answering such as racism or other forms of social prejudice. It should be noted that priming studies have been the target of recent criticism because of the so-called “replication crisis in psychology.” For more information on replication see the Noba module by that name.
- *Archival research*—Archival research is, perhaps, the underdog of psychological research. Archival research uses published records such as arrest records, school graduation records, and historical accounts of hospitalizations. Archival research also includes a major new trend in research—so-called “Big data.” Big data is the term we use for the analysis of huge data sets taken from social media and similar on-line resources. For example, researchers could track millions of instances of happiness and sadness related tweets posted on Twitter for each day of the week to determine if, on average, people vary in their moods and focus from weekday to weekend.
- **Culture of honor:** The author of this module refers to a complicated but fascinating study of the social phenomenon of “culture of honor.” This concept is interesting, in part, because it is unfamiliar to most students. Simply put, culture of honor refers to cultural leanings that emphasize personal or family reputation. The cultures of the “Deep South” in the United States and of Saudi Arabia are both examples of honor cultures. People from these cultures are motivated to maintain their reputations and are sensitive to potential slights that suggest a lack of respect or damage to their reputation. This concept has been written about by psychologists Richard Nisbett, Dov Cohen, and the popular author Malcolm Gladwell.
- **Terror Management Theory (TMT):** The author of this module also refers to the concept of “terror management theory.” Pioneered by researchers Pyszynsky, Solomon and Greenberg, TMT is the idea that all people experience existential dread when confronted with reminders of their own mortality and that—when activated—this state can affect thinking and behavior. TMT studies have sometimes used *priming* as an approach to research.

## Difficult Terms

Anecdotal evidence  
Archival research  
Confederate  
Demand characteristics  
Dependent variable/Independent variable  
Ecological validity  
Field experiment  
Hypothesis  
Implicit associations test (IAT)  
Manipulation check  
Naturalistic observation  
Operationalize  
Participant variable  
Priming  
Random assignment  
Samples of convenience  
Social facilitation  
Terror Management Theory  
WEIRD cultures

## Lecture Frameworks

*Overview:* This material can be presented with a combination of direct instruction, discussion, and activities. The suggested warm up activity gets students to think about culture by considering their own culture from an outsider's point of view. Time and again in this unit, students are asked to reflect on their own cultural experiences. This is a way to make the content relevant to daily life and to increase understanding of the core research and concepts.

- **Warm-up Activity: Flirting research:** The purpose of this activity is to get students to gain an appreciation of research by engaging them in thinking about how they would study a specific social psychology phenomenon – flirting. It is an opportunity for them to generate their own hypotheses and measures and this activity can be used to set up the important points that will come later in class. See below in 'Activities/Demonstrations' and in the Noba PowerPoint for more details.
- **Direct Instruction of "How Scientists Think":** There are multiple slides associated with this

portion of the lesson.

- This portion of the lecture is an opportunity to engage students in an idea that might be fresh to them: that scientists think in a unique way. Typically, research methods classes and courses emphasize the technical elements of empiricism such as control groups and operational variables. Too seldom, perhaps, do they emphasize that science, and the people who gravitate toward this way of knowing, have certain leanings. Chief among them is “observation.” The best scientists are keen observers of life. Like large predators, these are vigilant for prey. Prey, in this case means curiosities, unknowns, and contradictions.
- For example, you might notice that older people appear, on average, to use cash more often at the grocery store than do younger people, who seem to prefer using credit or debit cards. These types of real world observations, as well as observations taken from the research literature, is what leads to initial testable hypotheses. Put simply, the best scientists are great at asking questions. This runs counter to many lay notions of scientists being people who want to answer questions.
- This point may be something you want to linger on or something that you want to pass by quickly. For those wanting to spend more time on this topic there is an optional activity. See below in ‘Activities/Demonstrations’ and in the Noba PowerPoint for more details.
- **Direct Instruction “research issues”:** Before launching into the various research methods such as lab experiments and surveys, it can be instructive to teach students about the context in which research occurs. This includes political and social contexts and gives rise to a number of important issues that must be considered for research to be valid, safe and useful.
  - *Measurement:* Measurement is at the heart of all research. Unlike faith, or reflection, or common sense, science is a way of knowing that emphasizes systematic observation and measurement. This means, of course, that the better our measures, the better our science.
  - Because psychology often deals with “invisible” mental phenomena such as attitudes, preferences and motivations it can be difficult to establish valid and reliable measures. This is why, in part, psychology has been criticized as a “soft science” (one that does not look at truly observable phenomena). Behaviorists addressed this issue decades ago by favoring observable behavior over more difficult to observe emotions or cognition. It is also possible that some of the popularity of neuroscience among lay people is due, in part, to the “visible” (“hard science”) nature of brain scans and similar data.

- You can engage your students by asking them if they think there are topics in psychology that cannot be measured. You might consider having them use a 1-10 scale ('not measurable' to 'easily measured') or simply to supply qualitative answers. You may even give them topics to consider: love, prejudice, trust, greed, loyalty, etc.
- *Ethics*: Students often know a great deal about research methods such as lab studies but next to nothing about the "life cycle" of studies. They often are unaware of grant writing, IRB approval, and publication. This is an opportunity to fill the gaps in their knowledge with special attention to the ethics that guide research. Ethics can be an area in which students are easily engaged because ethics deal with harm, fairness, conflicts of interests and similarly politicized issues that students might care about.
- Universities have Institutional Review Boards (IRBs) that serve to evaluate proposed research and ensure that it is up to ethical standards. In social psychology research some of the most important ethical considerations include:
  - Confidentiality: research participants can participate in research without worry that their personal information, identity, or behavior will be shared publicly.
  - Harm: research participants can participate in research without worry that they will be subjected to physical or psychological harm. In certain cases, such as research where small, painful electric shock might be administered the risks are explained and participants have opportunities to withdraw from the study.
  - Deception: because deception has psychological consequences—it is a breach of interpersonal trust—the nature of the deception must be explained in a debriefing session.
- NOTE: see 'Activities/Demonstrations' below for an optional activity not contained in the Power Point notes.
- *WEIRD samples*: Among the most frequent critique of psychological studies is that so much research is conducted with convenience samples of Western, middle class college students. The acronym WEIRD stands for western, educated, industrialized, rich, and democratic. Using these samples means that many results may not be representative. Admitting that scientists are aware of the problem and attempting to rectify it can be a helpful way to get student buy-in. In addition, there are times that research might not call for diversity. Examples of this include a study of the attitudes of Canadian doctors toward the most common cancer treatments. In this case, we are focusing on such a narrow phenomenon that wider representativeness (beyond Canadian doctors) isn't necessary.



- **Direct Instruction of “Types of Research”:** In many ways, this is the core of this lesson. It is here that students will learn about specific research methods in social psychology.
  - *Laboratory:* The laboratory experiment is the “classic” method of psychological study. The lab enables social psychologists to control conditions and establish causality. The artificial environment of the lab, however, means that behaviors may not translate to real world situations. See below in ‘Activities/Demonstrations’ and in the Noba PowerPoint for more details.
  - *Field:* Here, you can introduce students to the idea of field research in social psychology. Some field research is just field surveys, such as face to face interviews. Some field research includes more carefully controlled field experiments. These share the careful control of laboratory studies but have the added benefit of that they occur in real world situations and so may be more representative of real world behaviors. The classic 1972 study by Alice Isen and Paula Levin, *Effect of Feeling Good on Helping*, is covered in the PowerPoint.
  - *Survey:* Surveys are widely used because they are inexpensive and easy to administer in large quantities. They are particularly good for the reporting of personal experience and attitudes. Disadvantages include the possibility of socially desirable responding, the possibility that participants might not know the answer, or the fact that answers represent only a single point and might change over time. The Power Point presents data on income and happiness collected in the Gallup World Poll, a survey of 140+ nations that used careful, representative samples.
  - *Nonconscious:* Two nonconscious approaches to research are discussed in the module. First, the Implicit Attitudes Test is discussed. This method uses computer reaction time to measure automatic processing. Because it is difficult to fake this method, it is good for measuring socially undesirable attitudes such as prejudice. Second, priming is discussed. Priming makes certain norms, identity, and ways of thinking salient by nonconscious planting of them. For example, if you hear a lecture on helping behaviors you might be more likely to notice people’s small acts of kindness such as holding the door for one another. There is a priming activity in the Power Point. See below in ‘Activities/Demonstrations’ and in the Noba PowerPoint for more details.
  - *Archival:* Archival research is any study that uses published records and historical artifacts as data. Examples include arrest records, hospitalization records, weather records, and published auto-biographies. Archival research has the advantage of using real, naturalistic phenomenon as the centerpiece of study. In modern times, so-called “big data” is an example of archival research. Examples of big data studies include analyses of massive numbers of social media posts such as those found on Twitter and

Facebook.

- **Cool Down Activity: One-Minute paper:** This activity is an opportunity for students to reflect on their own learning. See below in 'Activities/Demonstrations' and in the Noba PowerPoint for more details.
- **CAT: Muddiest Point:** This activity is a classroom assessment technique (CAT), which will help you assess your students' understanding of the material.

## Activities & Demonstrations

- **Warm up and Cool Down Activity—Reflect on your own culture:** The purpose of this activity is to get students to gain an appreciation of research by engaging them in thinking about how they would study a specific social psychology phenomenon – flirting. It is an opportunity for them to generate their own hypotheses and measures and this activity can be used to set up the important points that will come later in class.
  - *Materials:* None, notes optional
  - *Time:* 15 minutes at the beginning of class.
  - *Directions:* Begin by having students divide into small groups of 4-5. Ask them to consider how they might go about studying the social phenomenon of flirting. Remind them that you are not looking for right or wrong answers but just want to engage them in thinking about the research process. You might choose to prompt them to consider:
    - **Definition**(What is flirting?)
    - **Measures**(How will they measure flirting?)
    - **Hypotheses** (Whom will they study? What do they expect to find? Why?)
    - **Other**(are there possible ethical considerations?)
- *Discussion Questions:* Invite the groups to share their ideas with the larger class. Point out any agreements/similarities or unique study ideas. Use the group presentations as an opportunity to underscore the main themes of this module:

- 1) hypotheses are drawn from real world experience and observation,
- 2) clear definitions are important,
- 3) there are many ways to measure social psychology phenomenon,
- 4) ethics and sampling are important considerations for responsible research.

How Scientists Think Activity (optional activity): The purpose of this activity is to have students better appreciate the ways that scientists think. This activity bears some resemblance to the “flirting activity” above and you may want to skip it if you have conducted that activity.

- *Time:* 5 minutes including discussion
- *Materials:* pen and paper for notes
- *Directions:* Have students consider their own lives. Direct them to think about their relationships, about their activities, about their work and school lives, about their sense of identity. Using small groups, have them share interesting observations about curious phenomena. These could include patterns of speech, non-verbal behavior, competition, school culture or almost any social topic. In small groups have them generate a few hypotheses about the most intriguing observation offered.
- **Institutional Review Board (IRB) activity:**
  - *Time:* 10-15 minutes
  - *Instructions:* Have students get into small groups. They will act as a mock IRB and will be considering a research proposal from a hypothetical graduate student at a university. The research proposal can be found in its entirety in Appendix A of the Activities and Demonstrations section.
  - Points for ethical consideration or discussion:
    - Informed consent: the proposal offers to mention of informed consent. There is no mention of voluntary participation or discontinuing the study.
    - Deception: Deception is used. Students are led to believe that the test is legitimate and that their grade will count. They are further led to believe that the instructor is primarily interested in their learning. The deception may be outweighed by the potential harms. The harm includes A) a rupture in the instructor-student relationship. The students will not be able to trust subsequent methods used in class and the instructor will cease to be an effective teacher, B) students may suffer from

guilt. The instructor is giving them a tempting way to transgress social norms.

- Debriefing: Although a debriefing protocol is mentioned it is inadequate. Simply informing students that deception has occurred is not, in itself, sufficient to justify the deception or address its possible harms.
  - NOTE: This research protocol is not fictional! It is taken from Smith, Wheeler, & Diener (1975). Faith without works: Jesus people, resistance to temptation and altruism. *Journal of Applied Social Psychology*, 5, 320- 330. Ed Diener, the third author on this paper, has criticized this study in his 1978 book, *Ethics in Social and Behavioral Research*.
- **Laboratory Research Activity:** This short activity is designed to get students to consider the ways that artificial environments such as laboratories can be used to conduct research.
    - *Time:* 5 minutes
    - *Instructions:*
    - **Step 1:** observations and hypotheses– what elements of the classroom might influence learning outcomes? Guide students to consider the following 4 categories:
      - --Instructor variables (eg. Humor)
      - -- Student variables (e.g. where they sit in class)
      - -- Physical variables (e.g. are there windows)
      - -- Course design variables (eg. % lecture vs. discussion)
    - **Step 2:** Have students focus on one of the 4 categories and generate a specific hypothesis and measures. These measures need not be actual instruments, they can be hypothetical.
    - **Step 3:** Engage students in creating the research design. How, exactly, would they control the other variables so that they could see the unique effects of their own variable of interest?
  - **Priming Activity:** This short activity is designed to have students experience the effects of priming.
    - *Time:* 5 minutes
    - *Materials:* This activity is intended to be used with the 4 prompts on the Power Point. The Power Point slide shows a picture of “breakfast” (the prime) and then asks students

to fill in the blanks for various words. The prompts on the slide are:

- Fill in the blanks:

C O F F \_ \_

M I L \_

T O A \_ \_

F R U \_ \_ \_

- *Instructions:*

Begin by having students fill out the words as prompted on the screen. It is likely, given the picture of breakfast, that they will be “primed” to think of breakfast related words such as coffee, milk, toast, and fruits. But other words are possible such as coffin, mile, toads, and frumpy (or frugal, for that matter). Once a concept is primed it can be temporarily difficult to break out of that particular schema. Researchers often use word-search puzzles or reflection prompts to activate schemas and stereotypes, thereby making certain information more salient. They then proceed to see what effect these primes have on thinking, feeling and behavior.

- **CAT: Muddiest Point:** This activity is a classroom assessment technique (CAT), which will help you assess your students’ understanding of the material. CATs also often help students remember the material (Angelo & Cross, 1993).
  - Time: 5 minutes
  - Materials: A piece of paper for students to turn in their responses.
  - Directions:

## Discussion Points

1. Psychology is a science. As such, it is important that people interested in the field understand science. This begins by understanding the scientific way of thinking. Scientists are observers and use observation to create testable hypotheses. They then create studies attending to ethics, measurement, and methodology that they feel can best test the phenomena under scrutiny.
2. Social psychology is concerned with studying thoughts, feelings and behaviors in the social environment. Therefore, this branch of psychology uses field research and archival research and surveys as more naturalistic methods to study real world psychology. That said, social psychologists also employ the traditional method of laboratory studies.

## Appendix A

Research Proposal Submitted to the Institutional Review Board (IRB)

Principle Investigator: John Smith, PhD candidate in the School of Psychology

Purpose of study: To investigate possible differences in academic honesty between men and women

Sampling: The sample used in this study will include adult students enrolled in psychology courses at this university.

Procedure: As a regular part of their course, the students will take tests and respond to test items using standard “scantron” (bubble forms) that can be computer graded and which are available for purchase at the campus bookstore. After the tests are collected, photocopies will be made of each student’s answer sheet. During the following class period, the students will be told by the instructor (the principle investigator) that he has decided to employ an honor system and allow each student to grade his or her own exam. The rationale given will be that tests should be a learning tool as well as an assessment device, and that research has shown that students retain more knowledge when they are given an opportunity to correct their wrong answers. The students will be given an answer key containing the correct response for each test item. Students will be directed to take home their test booklet, answer sheet, and response key and to grade their own tests. The corrected test forms will be returned the following day. These graded tests will be compared to the photocopies of the original test forms to identify possible instances of academic dishonesty in which students modify answer sheets to improve their originally earned score.

Debriefing: After the data are collected the students will be notified that the test was part of a study into academic honesty. They will be reassured that they will not actually be graded on this test and that no instances of dishonesty will be punished in any way.

## Outside Resources

Article: Do research ethics need updating for the digital age? Questions raised by the Facebook emotional contagion study.

<http://www.apa.org/monitor/2014/10/research-ethics.aspx>

**Article: Psychology is WEIRD. A commentary on non-representative samples in Psychology.**

[http://www.slate.com/articles/health\\_and\\_science/science/2013/05/weird\\_psychology\\_social\\_science\\_researchers\\_rely\\_too\\_much\\_on\\_western\\_college.html](http://www.slate.com/articles/health_and_science/science/2013/05/weird_psychology_social_science_researchers_rely_too_much_on_western_college.html)

**Web: Linguistic Inquiry and Word Count. Paste in text from a speech, article, or other archive to analyze its linguistic structure.**

<http://www.liwc.net/tryonline.php>

**Web: Project Implicit. Take a demonstration implicit association test**

<https://implicit.harvard.edu/implicit/>

**Web: Research Randomizer. An interactive tool for random sampling and random assignment.**

<https://www.randomizer.org/>

## Evidence-Based Teaching

Johnson, B. & Corser, R. (2014). Learning ethics the hard way: Facing the ethics committee. *Teaching of Psychology*, 25, 26-28.

- This paper describes the use of classroom mock-ethics committees as a means of effectively teaching about ethics. This is done through a formal complaint case study and allows for participation of the entire class.

## PowerPoint Presentation

This module has an associated PowerPoint presentation. Download it at [https://nobaproject.com//images/shared/supplement\\_editions/000/000/210/Research%20Methods%20in%20Social%20Psychology.pptx?1475873275](https://nobaproject.com//images/shared/supplement_editions/000/000/210/Research%20Methods%20in%20Social%20Psychology.pptx?1475873275).

## About Noba

The Diener Education Fund (DEF) is a non-profit organization founded with the mission of re-inventing higher education to serve the changing needs of students and professors. The initial focus of the DEF is on making information, especially of the type found in textbooks, widely available to people of all backgrounds. This mission is embodied in the Noba project.

Noba is an open and free online platform that provides high-quality, flexibly structured textbooks and educational materials. The goals of Noba are three-fold:

- To reduce financial burden on students by providing access to free educational content
- To provide instructors with a platform to customize educational content to better suit their curriculum
- To present material written by a collection of experts and authorities in the field

The Diener Education Fund is co-founded by Drs. Ed and Carol Diener. Ed is the Joseph Smiley Distinguished Professor of Psychology (Emeritus) at the University of Illinois. Carol Diener is the former director of the Mental Health Worker and the Juvenile Justice Programs at the University of Illinois. Both Ed and Carol are award- winning university teachers.

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