

## Step 4

### Research design user's manual

**This is a brief user's manual on research design that Bill wrote for himself after the third or fourth time he taught this step to high school students. We have edited it slightly, so it speaks to a wider circle of teachers.** So far, the research process has focused on what other people—community members and other researchers—can tell us about our research question. Your students now have the opportunity to design field research that will enable them to collect their own data to supplement this information. “Field research” gets researchers out of the classroom and lab and gives them permission—no, requires them—to ask people to share their views by completing a survey, answering interview questions, or participating in a focus group. This process is very different than using websites to find information, because it is alive. That is, it requires students to get answers to their questions by respectfully interacting and engaging with real people. Researchers call the nice people who agree to help them answer researcher questions, “human subjects.”

#### **Field research has two stages:**

- 1) ***Making big research design decisions.***
  - *What method or methods will yield the best data to answer your question?*
- 2) ***Creating the research tools.***
  - *Once a decision has been made to, for example, use a survey, it is necessary to learn how to write a good survey.*

Every researcher who intends to collect his or her own data has to make a number of decisions. Like these researchers, your students will want to make these decisions based on what will help them answer their research question. A research question usually gives researchers a

clue as to how to make these decisions. When some of our students wanted to understand how registered voters in their town felt about lowering the voting age they decided to create a survey because they wanted to reach as many people as possible and were confident that multiple choice questions—which surveys are good at asking--would capture the range of views this group might have. While the research decisions are always shaped by the research questions, all researchers also must take-into-account their circumstances and resources.

The senior researcher, the teacher, is chiefly responsible for striking a balance between what would be the best method to answer a question, on the one hand, with the constraints you and your students are working under, on the other. Each teacher must make sure that conducting a research-based class doesn't take over his or her life. The trick here is to keep what is interesting about this work while making it doable.

To tailor the research process so that it fits into your time constraints, we suggest *shrinking* the process, so you retain something of the excitement of the original question, **not** carving off one small section of the work and forgetting everything else. For example, if you decide the best method for answering your question is a focus group, but have limited time, we suggest that you shrink the work by deciding to do just one or two focus groups not looker for quicker method. Of course, researchers want to do this balancing or shrinking work in an “thoughtful” manner. “Thoughtful” here means letting other researches and officials who may read your report or see your students’ presentation know that you are aware of the advantages and disadvantages of each research design decision your class has made. When your class is presenting their research, you and your students will want to give convincing reasons why they made the choices they did. This is different than convincing someone they made the “right” decision. We tell our students that if we explain our decision to use a survey because it “was

easier or we felt like it,” city officials who we may want to work with may see this as a sign we are not serious and (thus) not good potential collaborators.

Here is an example of how a *TfC* class let the readers of their report know they were making a thoughtful decision about the method they chose: “We decided to use focus groups because we wanted to get inside the heads of people and didn’t think surveys with a limited number of answer options would allow us to do this. We know we won’t reach as many people as we would with a survey. It will also take a bit more time than a survey, but we have the time and it will be worth it”

This example suggests making a thoughtful research decision does not require special knowledge or incredible intelligence. We have found that balancing the advantages and disadvantages of research decisions is a skill that anyone can develop if they get practice and want to learn this skill. The best way to get good at making design decisions is to become familiar with the kinds of decisions researchers make and to see examples of how and why they made the decisions they did.

**Here are some typical research design decisions:**

- ***Do you need to sharpen your focus?*** Should you narrow or refine your research question, now that you have finished your literature review?
- ***Which people or organizations should provide data?*** Given what you now know about your research question, what people or organizations are you most interested in—i.e. people of a certain age, geography, race, income etc.?
- ***How should your class collect data--speak with people or observe them?*** Given what you now know about your research question and who or what group you want to examine, do you want to directly ask/talk to people or observe them? Methods for

asking/talking include surveys, focus groups, or interviews. A method for observing people is called participant observation. (Given the time necessary for participant observation it is often not feasible. However, we believe students should be aware of this method.)

- ***What methods do you want to use?*** Given what you now know about your research question, what is the best method or methods for asking the people—i.e. survey, focus group, in depth interviews?

