

**JoVE: Science Education**  
**Observational Research**  
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**Psychology Education Title:** Observational Research

## Overview:

If you want to know how someone thinks or feels, you can ask that person questions. Another approach is to observe how the person is acting or look for indicators of how they acted in the past. While observations may seem revealing, it isn't always easy to know if they are truly accurate. For instance, you may see a person smiling and assume they are happy, when in reality they're annoyed and merely being polite.

The purpose of science is to move beyond an individual's own views of the self because they are inherently skewed by that individual's expectations, previous experience, personal biases, motivations, emotions, etc. While a person may have unique insight into one's self, these insight may not accurately represent reality. Put more simply, what a person says, does not always match up well with what they actually do. For this reason, researchers should incorporate a variety of measures (e.g., asking participants to report how they feel, but also observing actual behavior) in order to more accurately capture how the person truly feels.

This video demonstrates a correlational design where researchers measure students' homesickness in two distinct ways: (1) a homesickness scale, and (2) by observing how the student has decorated his or her dorm room.

Psychological studies often use higher sample sizes than studies in other sciences. A large number of participants helps to better ensure that the population under study is better represented, i.e. the margin of error accompanied by studying human behavior is sufficiently accounted for. In this video we demonstrate this experiment using just 1 participant. However, as represented in the results, we used a total of 63 participants to reach the experiment's conclusions.

## Procedure:

**Comment [GLJ1]:** The gist of this video isn't empiricism per se (because self-report is also an empirical approach). Rather the emphasis is on how the same think can (and should) be measure different ways to produce the more accurate/true to life information.

**Comment [AK2]:** This is a little bit skimpy to me when compared to other science education content we've seen. There's a lot to say about observation in science and philosophy. We aren't going to introduce students to empiricism?

<http://www.simplypsychology.org/science-psychology.html>

<http://psychology.irank.org/pages/216/Empiricism.html>

## 1. Define Key Variables

1.1. Create an operational definition (i.e. a clear description of exactly what a researcher means by a concept) of “homesickness.”

1.1.1. Homesickness is the distress and functional impairment caused by an actual or anticipated separation from home and people and things you're familiar with. (<http://wellbeing.rice.edu/homesickness/>)

**Comment [DM3]:** Thought about striking this and inserting “one is” in its place but didn't as it's an attributed definition.

## 2. Lead participant through informed consent

2.1. Informed Consent is a brief description of the research, a sense of the procedure.

2.1.1. Inform participant that they will be asked to complete several questionnaires and then will be asked to allow researchers to look at their dorm room.

## 3. Give participant a packet that includes the Homesickness Scale (attached at bottom) and several other questionnaires.

3.1.1. The extra questionnaires serve as distractors so the participant does not know the true purpose of the study.

3.1.2. Participant fills out the scales, with extra attention paid to the Homesickness Scale.

## 4. Two observers visit participant in his or her dorm room to log observations of homesickness.

4.1. These 2 observers are different from the researcher who administered the surveys so that no bias is present from the survey results.

4.2. Observers ask the participant for permission to look around the room.

4.3. Observers look for evidence of homesickness which includes pictures of parents, family, friends from home; clothing from their high school vs. college; high school yearbook; and a low presence of university logos/paraphernalia. Observers log these observations on their clipboards.

4.3.1. Participant is asked to open drawers/closets and to clarify, for observers, who appears in pictures.

## 5. Debrief

5.1. Participant is told that the true nature of the study is to determine if homesickness is evident by looking at a student's dorm room. Participant is also told that the surveys, other than the Homesickness Scale, served as distractors in the research so that the participant would not know what the observers were looking for in his/her dorm room.

5.2. Remediate risk by referring participant to the counseling center if they are experiencing any homesickness.

## 6. Analyzing the Data

6.1. The researcher (who administered the surveys) scores the homesickness scale survey completed by the participant.

6.2. Observers discuss/review their notes and then score participant on a 1-7 scale (ranging from 'not at all homesick' to 'extremely homesick').

6.2.1. These same 2 Observers are used to observe all participants' dorm rooms to ensure that the scoring is consistent.

## Results:

Figure 1. Correlation between Homesickness Scale and Dorm Room Observation Scores

After collecting data from 63 people, the researcher performed a correlation between the participants' score on the homesickness scale to

the observer's score of their room to determine if a visual inspection of a student's room can indicate their degree of homesickness.

The results indicate that participants who scored higher on the homesickness scale had more indicators of homesickness in their dorm room.

The results of this study are similar to another study by Gosling and colleagues (2002), which showed that individuals' offices and living spaces were good indicators of their personality.

### **Applications:**

This correlational study shows that a person's behavior, even something as simple as how they decorate their room, can indicate how they feel (i.e., how homesick they are).

Using observations of another person to infer that person's feelings or thoughts can be difficult. However, research has found evidence that we can be accurate in our observational inferences. A study in *Psychological Science*, found that observers could accurately infer personality characteristics from a person's Facebook profile.

### **References:**

Archer, J., Ireland, J., Amos, S., Broad, H., & Currid, L. (1998). Derivation of homesickness scale. *British Journal of Psychology*, 89(2), 205-221. doi:10.1111/j.2044-8295.1998.tb02681.x

Gosling, S. D., Ko, S., Mannarelli, T., & Morris, M. E. (2002). A room with a cue: Personality judgments based on offices and bedrooms. *Journal of Personality and Social Psychology*, 82(3), 379-398. doi:10.1037/0022-3514.82.3.379

Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, not self-

idealization. *Psychological Science*, 21(3), 372-374.  
doi:10.1177/0956797609360756

Homesickness Scale (adapted from Archer et al., 1998)

To what extent is each of the following true of you?

Not at All    1       2       3       4       Extremely

- \_\_\_ 1. I can't help thinking about my home.
- \_\_\_ 2. I can't concentrate on my work because I'm always thinking about home.
- \_\_\_ 3. I visit home as often as I can.
- \_\_\_ 4. Thinking about home makes me cry.
- \_\_\_ 5. I dream about my friends at home.
- \_\_\_ 6. If I ever went home for the weekend I wouldn't want to come back
- \_\_\_ 7. I get really upset when I think home.
- \_\_\_ 8. I can't concentrate on my work.
- \_\_\_ 9. I feel empty inside.
- \_\_\_ 10. I am drawn towards people who come from my hometown.

**Legend:**

Figure 1. Correlation between Homesickness Scale and Dorm Room Observation Scores

