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ACTIVITY 2.1

Counting Fidgets: Teaching the Complexity of Naturalistic Observation

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The research tradition in psychology typically involves controlled laboratory settings. Nonetheless, naturalistic observation can generate important information. Unfortunately, most research methods textbooks devote only a single chapter to all of the descriptive techniques. This 5-min activity uses classroom observers to record fidgeting behavior and outlines a simple classroom technique that successfully conveys to students some of the complexities of naturalistic observation. [Author note: This activity can also be used to illustrate importance of operational definitions.]

Concept

Naturalistic observation can play a significant role in the study of social behaviors. However, students may not appreciate the complexities of this approach. In the activity, students count the number of fidgets they observe in classmates and discuss reasons why different observers in the same situation report different numbers of fidgets. Students then decide how, as researchers, they would solve the problems they identify.

BACK TO CONTENT OUTLINE

Materials

The only implements required for this activity are an ordinary watch, a classroom clock with a second hand or other timing device, and a sheet for tallying the fidgets in each of five 1-minute segments.

Instructions

Preparation

Solicit two student volunteers to participate in an as-yet undefined task. They need to have either digital watches or watches with a second hand, or they can borrow these items for the demonstration. It is helpful to know the volunteers because you can then select people who are likely to respond quite differently in the task; such variation enhances the pedagogical effectiveness of the activity.

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Selecting one student who is energetic and another student who is calmer often leads to very different reports from the observers, which is the point of the exercise.

After choosing the two students, take them into the hallway briefly so you can explain their roles as student observers (see Activity 2.1 Appendix). Even though the directions are simple, the observers may have questions. Try to avoid answering questions about definitions of fidgets because that is part of the later discussion. In fact, I have found it is best not to let the observers ask any questions at all. Now return to the classroom.

Table 1. *Student Activity and Purpose for the 1-Minute Demonstration Period*

Minute	**Activity During the 1-Minute Period**	**Purpose**
1	I talk about a topic unrelated to systematic observation.	This generates a baseline period for number of fidgets.
2	I tell students I want them to close their eyes and imagine that insects are crawling on their skin.	This prepares them for the period in which the number of fidgets is likely to increase.
3	Students close their eyes and imagine the insects are present.	Students can concentrate on the insects without distraction. It helps generate fidgets.
4	We begin a discussion in which students speculate on the reason for the activity and the role the student observers played.	This creases a cool-down minute in which fidgets begin to decrease in number.
5	The discussion continues.	This provides another post-insect baseline.

Demonstration

The students in the class still do not know what is going on. They follow the directions as indicated in Table 1. The observation period consists of five 1-minute segments. During the observation time, the two observers are really the source of data to be discussed later. In general, the two observers will record very different numbers of fidgets within each 1-minute period across the entire time span. I have never failed to achieve notable differences between observers' counts. Often one student will record two or three times as many fidgets as the other. The discrepancy between

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observers illustrates the difficulty associated with monitoring a behavior as simple as fidgets. Trying to document more complicated psychological phenomena is enormously more difficult.

Discussion

Students are often not aware of the difficulties associated with naturalistic or systematic observation. During the discussion following the demonstration, ask them what could be done to improve data collection in observation studies.

I typically identify the following problems with the present methodology specifically and with observation techniques broadly; if the students do not generate these possibilities, note them and ask students to solve the problems.

1. The concept of a *fidget*, although intuitively clear, does not have a clear operational definition. Observations would be more reliable with a set definition.
    - Even though an operational definition would help, such a construct leads to missing some fidgets, whereas some movements that intuitively do not seem like fidgets would be recorded simply because of the definition used.
    - Training people until they are consistent would raise the low interrater reliability.
    - Creating a video of the scene to be recorded would allow observers to discuss their criteria so that all observers are recorded in similar ways.
2. The method of recording data might differ across observers. For example, some students log a fidget with every occurrence, taking their eyes off the class, whereas other students tally the movements in their heads and only enter them onto the data sheet when the 1-minute segment ends. Students in the latter group are less likely to miss movements while recording data.
3. The student observers may be sitting on different sides of the room, so their vantage points are not the same. As a result, they may not really be recording the same scene because of the possibility of partially blocked viewing conditions or differing perspectives.
4. Students in the class know they are being observed, even if they do not know the purpose. As a result, they may try to figure out the purpose and change their behaviors either to be helpful or to resist intru-

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sive observation of their behaviors. Depending on the student's conclusion, that individual's behavior may not resemble that of the person in the next seat.

This activity is well received by students and generates meaningful discussion. Afterward, they are better able to recognize the pitfalls that arise during even simple observational techniques and appreciate the difficulties inherent in this approach.

Writing Component

Prior to the discussion of problems associated with observational research, students can generate their own list of pitfalls and the means to solve them. As a rule, any single student can produce a few of the problems, but the class discussion extends the listing greatly. As a final writing exercise, students can try to identify some of the strengths of observational research compared to experimental research. To complete the picture, they can also identify some of the limitations of the controlled experimental approach.

Suggested Reading

Babbie, E. (1995). *The practice of social research* (7th ed.). Belmont, CA: Wadsworth.

Goodwin, C. J. (1995). *Research in psychology: Methods and design.* New York, NY: Wiley.

Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). *Research methods in social relations* (6th ed.). Fort Worth, TX: Holt, Rinehart, & Winston.

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Activity 2.1 Appendix

Directions to Student Volunteers

I would like you to record the number of fidgets that the students in the class emit for a 5-minute period. Break the 5-minute period into separate 1-minute segments and keep a count of the number of fidgets in each segment. Keep a written record of the number of fidgets in each segment. You will need to scan the entire class, so sit at the front, facing the class.

When we go back to the classroom, take your observation seats and when I say "begin," start recording the number of fidgets. For the first minute, I will be talking, for the second minute, I will explain that I want the students to sit with their eyes closed and imagine that insects are crawling on their skins. During the third minute, they will actually sit there with their eyes closed, imagining insects. During the fourth minute, they will begin a discussion of what they think is going on. The discussion will continue into the fifth minute.

Make sure you keep track of the time as accurately as you can and record the fidgets separately for each minute.