In-Class Worksheet Time Sampling & Event Sampling

The purpose of this exercise is to use a time-sampling procedure to record two behaviors of one individual. Since reliability of the observations will be evaluated, two observers must judge the same person's behavior at the same time. After collecting the data, your taks is to compute the three kinds of reliability coefficients described in the Observation Handout.

In this exercise, the class will be divided into triads: two observers and one timer. Each observer should use her/his own data sheet (designed appropriately of course) when making the observations. The two observers must base their judgments on the saem person at the same instant.

Instructions – Read completely before starting.

1. To conduct your **TIME SAMPLING EXPERIMENT:** Form groups of three and decide who will be the observers and who will be the timer. Be sure the timer has a watch.
2. You're to record two target behaviors at the same time: For example, speaking, smiling, fidgeting, moving his/her foot, or touching one's face. Use a time sampling procedure to record your observations.
3. The observation period will be 10 minutes long.
4. The timer should indicate the end of every 30 second interval with the interval number (e.g. first observation, second observation, etc.).
5. Each observer must make two judgments the instant the timer states the interval number. One judgement is whether the target person is talking at that instant, and the other judgment is whether the target person is smiling at the instant.
6. Select a person who is talking with another person in a public place. It is important to remain unobtrusive by not staring, etc.
7. If the target person is performing one of your chosen behaviors when the timer states the interval number, place a check mark in the box that corresponds to that behavior and that interval number. If the target person is performing your other target behavior at that instant, place a check mark in the box that corresponds to the behavior and that interval number.
8. **Note that in time sampling you are NOT recording whether the target person performed the target behaviors within the entire 30 second interval: only if the target person performed those behaviors at the specific instant the timer indicated the interval number**.

9. The judgments made by the two observers must be completely independent. This means that each observer must not know the ratings made by the other observer until all observations are complete. Doing it any other way defeats the purpose of this assignment. You will not be evaluated on the basis of amount of agreement between the two observers
10. How use what you have learned from this lab to construct two "data recording sheets" (one for each observer). Be sure that each data recording sheet lists two target behaviors and there are 20 time points across the top. Also be sure that all other relevant information is included. In this case, the person you observe will not be identified by name since he or she will remain anonymous.
11. **Now do another experiment conducting an EVENT SAMPLING procedure**.
12. Construct the grids according to what you learned from the lab handout.
13. The time span should be a 30 minute time span with 5 minute intervals.
14. Instead of indicating whether the observed individual performed your chosen target behaviors at a certain point in time, **put a check in the corresponding box (next to the chosen target behavior) for that 5 minute time interval every time the observed individual performed one of the target behaviors**. Several checks can be in any one box depending on the number of times the observed individual performed one of your chosen target behaviors during that 5 minute time interval.

TWO COMPLETED DATA SHEETS (one from each observer) MUST BE TURNED IN FOR YOUR GROUP TO GET CREDIT FOR THIS EXERCISE.

Reliability Coefficients

For the Time Sampling and Event Sampling exercises

Observation Reliability Coefficients

Calculate the observation reliability coefficient for both of your target behaviors for the **Time Sampling** and **Event Sampling** exercises. Then **find the combined observation reliability coefficients**. Be sure to begin each coefficient with a formula and to label appropriately for full credit. (i.e., there should be **a total of 6 calculations** for the Time Sampling & Event Sampling, a calculation for each target behavior, as well as the calculation for the combined target behaviors, equaling 3 calculations for each sampling exercise)

$$\text{Observation Reliability Coeff.} = \frac{\text{\# of Agreeing Cell Pairs}}{\text{Total \# of Cell Pairs}}$$

Occurrence Reliability Coefficients

Calculate each separate occurrence reliability coefficient and the combined occurrence reliability coefficient for the **Time Sampling** and **Event Sampling** exercises. For full credit, begin with the formula each time and label appropriately. (i.e., there should be **a total of 6 calculations** for the Time Sampling & Event Sampling, a calculation for each target behavior, as well as the calculation for the combined target behaviors, equaling 3 calculations for each sampling exercise)

Also, remember that if the coefficient cannot be calculated, it is not given a value of zero.

$$\text{Occurrence Rel. Coeff.} = \frac{\text{\# Cell Pairs Agreeing on \# of Occurrences}}{\text{\# Cell Pairs Agreeing + \# Cell Pairs Disagreeing}}$$

Outcome Reliability Coefficients

Now determine the outcome reliability coefficients for the separate target behaviors for each exercise. Once again, for full credit, begin with the formula each time and label appropriately.

In some situations, reliability is based on the total frequencies of a given target behavior rather than on agreement between cells. This is called outcome reliability. The formula for the Outcome Reliability Coefficient is:

Outcome Rel. Coef. = Smaller Frequency/Larger Frequency

The Combined Outcome Reliability Coefficient is obtained by dividing the smallest **grand total** by the largest. The Combined Outcome Reliability formula is:

Outcome Rel. Coef. = Smaller Grand Total/Larger Grand Total

There should be **a total of 6 calculations** for the Time Sampling & Event Sampling**, a** calculation for each target behavior, as well as the calculation for the combined target behaviors, equaling 3 calculations for each sampling exercise.

Look to the Lecture Notes for Chapter and the "Required Reading for Observational Exercise" on the handouts page of the website for a more complete example of what graphs should look like and how to calculate the Reliability Coefficients.