Lab 7a | Modeling and Verbal Instructions

Statement of the Problem

The purpose of this lab experiment is to examine the effects of providing a demonstration of a skill in the presence and absence of verbal instructions.

Reference

Chapter 7

Materials Needed

- One piece of rope or string 1 to 1.5 feet in length for each pair of students
- Instructional video for tying a bowline knot as shown on YouTube:
  www.youtube.com/watch?v=57CTfXEk7qk&feature=related
- Individual Data Sheet
- Group Data Sheet

videoDEMONSTRATION

Procedure

The objective of this task is to tie a correct bowline knot.

Divide into two groups. Group 1 (Model Only) will watch the instructional video for tying a bowline knot with the sound turned off. Group 2 (Model + Verbal Instructions) will watch the same video with the sound turned on. You will work in pairs within each group, with one partner performing the task while the other records the number of correctly performed task components during each trial; use the Individual Data Sheet. The first participant should complete all trials before partners switch roles.

Results

1. On the Individual Data Sheet, add the total number of components that you performed correctly for each trial. Calculate the mean number of correct

components by dividing the total number of correct components across trials by the number of trials (10).
2. Obtain the data on the total number of correct components across the ten trials from all the participants in Groups 1 and 2 and enter it in the [Group Data Sheet](#).
3. Calculate the mean number of correct components per participant by dividing the total number of correct components across trials by the number of trials (10).
4. Perform a t-test using the mean data of groups 1 and 2 at www.calculator.net/standard-deviation-calculator.html.

Discussion

1. How did the verbal instructions affect performance?
2. Discuss the task sheet used for measuring performance. How would you change it? Why?
3. Reexamine the data. Who outperformed whom—the individuals who served as experimenters/recorders first or those who attempted the task first? Why might this have occurred?

Name: Date:

Individual Data Sheet

Enter a check for each task component performed correctly.

COMPONENT	TRIAL									
	1	2	3	4	5	6	7	8	9	10
1. Hole										
2. Rope through hole										
3. Rope around rope										
4. Rope back through hole										
5. Pull knot										
6. Completed knot										
Total										

Mean number of correct components across the 10 trials: _____

Name: Date:

Group Data Sheet

Participant	Total Number of Correct Components Model Only	Total Number of Correct Components Model + Verbal Instructions
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

18		
19		
20		
21		
22		
23		
24		
25		
MEAN		