**Psy 330 Defining and Measuring Variables (G&F Ch. 3)**

 A researcher examined the effect of relaxation training on insomnia. Insomnia sufferers were selected as participants and received 0, 2, 4, or 8 sessions of relaxation training. Following training, the researcher measured how long it took the participants to fall asleep in their homes. The average time for each group is presented in the following table:

TRAINING SESSIONS MEAN TIME (minutes)

0 72

2 58

4 31

8 14

1.     Provide definitions for independent variable and dependent variable.

2.     Identify the independent and dependent variables in the above scenario.

3.     How many levels of the independent variable are there? Explain.

4.      What is the researcher’s operational definition of insomnia ? Explain.

5.    What modality of measurement is being used by the researcher (self-report, physiological, or behavioral)? Explain

6.    What scale of measurement is being used in this study (nominal, ordinal, interval, ratio)?  Explain.

7.     Given the measurement being used in this study, how concerned about validity should the researcher be? Explain.

8.     A reliable measure has a relatively low error component with each measurement. Measured Score = True Score + Error  
Explain how common sources of error (observer error, environmental changes, and participant changes) could potentially decrease the reliability of the measure in this study.

9. How might experimenter bias influence the results of this study (and thereby threaten the validity of the study)?

10. How might participant reactivity influence the results of this study (and thereby threaten the validity of the study)?