Free Response Question – Research Methods

**Directions:** You have 25 minutes to answer the following question. It is not enough to answer the question by merely listing facts. You should present a cogent argument based on your critical analysis of the questions posed, using appropriate psychological terminology.

Professor Jackson believes that frustration increases the need for achievement. She decides to test her hypothesis with her introductory psychology class of about 100 students. The first 50 students who arrive for class one day are taken to a separate room and given a series of easy puzzles to complete. Professor Jackson then asks each student about his or her professional goals. She rates the statement of each on a 7-point scale for strength of achievement motivation.

When they arrive, the remaining students are taken to another room and given a series of difficult puzzles by Professor Jackson’s teaching assistant, Jim. Jim also asks each student about his or her professional goals and, like Professor Jackson, then rates the statement of each on a 7-point scale.

The group given the difficult puzzles has, on average, 1% higher achievement motivation scores than the group given the easy puzzles, with a margin of error of 2.6% and a p-value of 0.56 (56% probability the results were due to chance or random variation). Professor Jackson concludes that her hypothesis is supported.

Describe how each of the following aspects of Professor Jackson’s experimental design or findings are flawed.

- Random Sampling
- Random Assignment
- Dependent Variable
- Controlling Confounding Variables
- Statistical Significance