*Discussion Questions Week 02*

1. Describe, in a short paragraph,

    a. What is a *pilot experiment*?
    b. Why are pilot experiments necessary?

2. Consider the following scenario:

A developmental psychology professor is interested in the way young children process information that is presented in various forms. A group of 3 year olds is divided into two groups. Both groups are seated in a room with the experimenter while their mother hides a toy in the next room. Group A is allowed to watch the mother hiding the toy through a small window that connects the two rooms. Group B views the mother via a HD television screen that is identical in size to the window used by Group A. Next, the experimenter takes the child into the next room, and the experimenter and the mother urge the child to "find the toy."

The finding is that toddlers in Group A are more likely to find the toy, and find it faster, than children in Group B. The interpretation is that children are less able to use visual information from television than from a direct view.

a. Discuss a flaw in the experimental controls that might compromise the interpretation of the data.

b. How might you improve this experiment so that the problem in part (a) is less serious?

3. The *method of authority* has both advantages and disadvantages as a way of obtaining knowledge. Describe the following in a sentence or two:

a. Why is the method of authority sometimes absolutely necessary? Give a specific example to illustrate.

b. Why is the method of authority sometimes very counterproductive? Give another specific example to illustrate.

4. An early research study attempted to calculate "the monetary value of a higher education" by simply calculating the average income of a large sample of people who complete a 4 year college degree and comparing this average to the average income of a large sample of people who have no college education. The implication is that the college education is responsible for the difference in income.

a. What is the independent variable?
b. What is the dependent variable?
c. Is the study described above manipulative or non-manipulative?

d. Name 3 variables other than "higher education" that might vary in an important way between the "higher education" and "no higher education" groups in this study. These variables are called "confounds." Name one confound that you think might seriously compromise the conclusion that college education is responsible for the difference in income.