

Name: _____ Section: (day/time) _____

AMS5 - Quiz 1
Thursday 9th April, 2015.

5

1. Classify each of the following variables as qualitative or quantitative; if quantitative, as discrete or continuous.

- (a) occupation qualitative
- (b) city of residence qualitative
- (c) weight quantitative - continuous
- (d) height quantitative - continuous
- (e) number of bicycles owned quantitative - discrete

1

2. To try to judge the health of the deer on campus, each day, from 1-2pm, you stand outside the library and look for signs of chronic wasting in the deer that you see.

Is this a controlled experiment or an observational study?

observational study

~~1~~

3. A news report (<http://news.bbc.co.uk/2/hi/health/7825890.stm>) stated that stock traders with relatively long ring fingers are more successful.

Is this likely to be a controlled experiment or an observational study? Why?

observational study - no intervention to "determine" finger length.

1 + 1

Do you think that finger length causes business success? What might be the factor that causes both?

1 + 1

No - a common factor causes both.

(testosterone exposure in utero - linked to finger length + aggression)

4. The Public Health Service studied the effects of smoking on health in a large sample of representative households. For men and for women in each age group, those who had never smoked were on average somewhat healthier than the current smokers, but the current smokers were on average much healthier than those who had recently stopped smoking.

(a) Why did they study men and women and the different age groups separately?

1

To allow them to see if there was a difference between men + women in terms of smoking + health.

(b) The lesson seems to be that you shouldn't start smoking, but one you've started, don't stop. Do you agree? Why/Why not?

1 + 1

No - the people who have recently stopped smoking are different from the current smokers.

(+ probably stopped smoking on account of poor health)