2A – Bivariate data – Classifying the variables

**CLASSIFYING THE TWO VARIABLES**

When we are investigating associations between two variables, it is important to

know whether the variables involved are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

For each of the following questions, classify the two types of variables involved:

*Are younger people (age in years) more likely to believe in astrology (“yes” or “no”)?*

Age: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Astrology Belief: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Do people who weigh more (kg) tend to have higher blood pressure (mmHg)?*

Weight: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blood Pressure: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Are people who have a driver’s licence (“yes” or “no”) more likely to be in favour of lowering the driving age (“yes” or “no”)?*

Licence Possession: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Opinion: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IDENTIFYING EXPLANATORY AND RESPONSE VARIABLES**

When a question is asked, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable (EV) may be used

to explain the changes or predict the values in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable (RV).

So the **EV may explain changes in the RV**.

Another way to think about this is that the **RV may depend on the EV**.

For each of the following questions, identify the EV and the RV

*Does the time it takes a student to get to school depend on their mode of transport?*

EV: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ RV: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Can we predict people’s height (cm) from their wrist circumference (cm) ?*

EV: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ RV: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Note: For both of these scenarios you could ask the question the other way around so that the EV and RV are reversed.