2H – Correlation and Causality

**CORRELATION DOES NOT IMPLY CAUSALITY**

A correlation tells you about the strength of the association between two variables,

but it tells you nothing about the \_\_\_\_\_\_\_\_\_\_\_ of the association.

*Watch the video “The Question of Causation” by accessing the link:*

[*http://cambridge.edu.au/redirect/?id=6103*](http://cambridge.edu.au/redirect/?id=6103)

To establish causality, you need to conduct an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, in which the

value of the explanatory variable is deliberately manipulated while all other possible

explanatory variables are kept constant or controlled.

When data that is collected through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in everyday life it is

extremely difficult to control all the relevant variables.

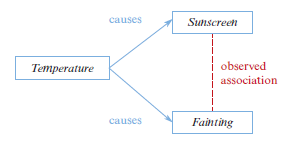
By itself, an observed association between 2 variables is insufficient \_\_\_\_\_\_\_\_\_\_\_\_\_

to justify the conclusion that they are causally related, no matter how \_\_\_\_\_\_\_\_\_\_\_\_

the causal explanation may appear to be.

**OTHER POSSIBLE CAUSES OF AN ASSOCIATION**

1. Common response to a third variable that wasn’t measured:



1. Confounding variables (at least two possible causal explanations exist):

A diagram of a problem

Description automatically generated

1. Pure coincidence (no logical causal link between the variables is apparent)