**Statistical concepts**

In the two (imaginary) experiments summarized below, identify the independent variable, dependent variable, experimental group and control group (if they exist).

1. Twice a week, a teacher of young children introduces a 5 minute session of chess (substituted by chequers for non-chess players) at the beginning of mathematics sessions; on the other three days, there are no games at the beginning. At the end of each session, the children complete a set of twenty sums.

In this experiment, what are the dependent and independent variables?

ANSWER….

If you are going to create a control and experimental group as part of the procedure in this experiment to better assess the effects of the stimulus, how would you implement it?

1. The school principal asks teachers to keep a record of the number of times students do something objectionable in class. On all occasions, teachers are to react in the way they normally do. However, some classes are to be given a brief talk at the end of the class. The talk may criticise some of the behaviour previously observed, or it may praise the class as a whole for not engaging in such behavior. Some classes do not receive the talk.

After an agreed period of time, the average number of incidents is calculated.

In this experiment, which are the independent and dependent variables?

Which groups are the control and experimental groups?

**Data types**

For each variable, identify the data type: continuous, ordinal or categorical).

Sex / Ethnicity / School grade / Age group / Social class / Sprint speed / Intelligence test