**Statistical concepts**

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

1. In Pavlov’s experiment about classical conditioning applied to dogs, the association of stimuli forms a learned response. A stimulus (food) leads to an unconditional response (salivation). When this has been experienced repeatedly, this creates a conditioned response. Pavlov designed an experiment where he used a bell as a stimulus and gave the dogs food after ringing the bell. When the dogs were used to this routine, they would respond to the bell with increased salivation even if they were not given the food. This is a conditioned response.

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 characteristics of the dog, how would you implement it?

ANSWER

1. The Bobo Doll experiment

Professor Albert Bandura of Stanford University conducted an experiment with 36 boys and 36 girls aged 3 to 6 years old. He wanted to see if children witnessing acts of aggression towards an inflatable, life-size bowling pin doll would copy the act. The children were split into three groups with 24 members each. One group observed aggressive behavior by an adult model towards the doll, another group saw non-aggressive play, and the last group was just given the doll with no adult models.

After this exposure, and a period of 'aggressive arousal', the children observed at play. Those who had watched aggressive adults were more likely to play aggressively with their toys, imitating the adults’ acts. In addition, female children acted with more physical aggression after watching an aggressive male subject while being more verbally aggressive after watching an aggressive female subject.

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

ANSWER

Which groups are the control and experimental group?

ANSWER

**Data types**

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

Sex / Marital status / Level of Education / Age group / Level of agreement / Temperature / Distance

ANSWER