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NULL HYPOTHESIS AND EXPERIMENTAL HYPOTHESISNull hypothesis =

predicts that there will be no results or that the results will be due to chance

Experimental hypothesis =

predicts the exact result on the manipulation of the IV on the DV

THE INDEPENDENT AND DEPENDANT VARIABLES IN AN EXPERIMENTIndependent variable (IV) is manipulated

E. G. noise no noise

Dependent variable (DV) is measured

E. G. number of words recalled ONIB PSYCHOLOGY-LEARNING OUTCOMES: 1. 3 SPECIFICALLY FOR YOUFOR ONLY$13. 90/PAGEOrder NowOPERATIONAL DEFINITIONS OF VARIABLESpositive correlation =

what both variables are affected in the same way

as X increases Y increases

E. G

the better you study the better you do in exams

negative correlation =

when one variable X increases the other variable Y decreases

E. G.

as the number of hours watching TV increase exam score decreases

bidirectional ambiguity =

E. G

the researcher might find that the increase in TV watching the more aggressive the cild becomes. this would be correlation.

however, the researcher does not know wether it was the TV that causes

higher level of aggression or if it was aggression causing more hours inform of the TV. = bidirectional ambiguity

CONFOUNDING VARIABLESin research the researchers want to control as many variables as possible. however, this is very hard.

confounding variables =
are undesirable variables that influence the relationship between the independent and dependent variable

E. G.
demand characteristics
= when the participants know that they are in an experiment and therefore act different than they would in reality.
they may, at first hand, guess the aims of a study and act accordantly(AKS Hawthorne effect).

this confounding variable because a participant has a right to know that they are in a study.

therefore, to counteract this confounding variable, a researcher can use a single blind control = the participant does not know what the study is about

researcher bias
= how the researcher will be bias, simply because he knows what he is looking for. this is how the researcher can consciously or unconsciously affect the findings.

using a double blind control can help to avoid this. = this is where both the participant and the researcher do not know the aim nor the the treatment and control group

participant variability

DIFFERENT EXPERIMENTAL METHODSlaboratory experiment

= strict control of variables

this means that experiments are easy to replicate

the laboratory is artificial and therefore participants may react different to how they would in real life

field experiment

= natural environment

but the researchers still can manipulate some variables but cannot control all

natural experiment

= the researchers have no control of any variables

STRENGTHS AND LIMITATIONS OF EXPERIMENTAL METHODS-laboratory experiment

strength: the researcher has control of all variables

limitation: participant may act differently to how he would in reality

-field experiment

strength: the researcher can manipulate variables

limitation: participant may act differently to how he would in reality

-natural experiment

strength: participant acts as he would in reality

limitation: researcher has no control over variables