

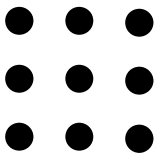
Perceptual Processes - Experimental Methods Practice

For each of the following experiments:

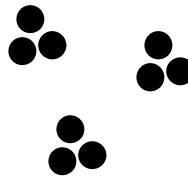
- Identify the IV and DV.
- State the aim and suggest an alternative hypothesis.
- Identify the experimental design used and give one advantage and disadvantage of using it.
- Identify one potential confound and explain how it might affect the results if not controlled.
- Identify one ethical issue in the study and outline how it could be dealt with.

Experiment 1

A researcher wanted to investigate perceptual organisation in children. She designed a series of stimuli made up of black dots on a white background. There were two types of stimuli. In Type A, the black dots were equidistant from each other. In Type B, the black dots were arranged so that they clustered together.



Type A stimulus

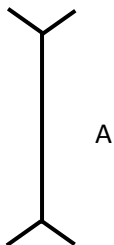


Type B stimulus

Participants were 7 year-old children recruited from a local primary school. Individually, they were seated in front of a screen and shown the stimuli one at a time. They were instructed to say out loud how many small black dots were present as soon as possible after being shown each stimulus. First they were shown a series of 5 Type A stimuli and then they were shown a series of 5 Type B stimuli. The researcher recorded how long it took the participant to correctly identify how many black dots were in each.

Experiment 2

A researcher wanted to investigate factors that influence perception of visual illusions. She created two versions of the Muller-Lyer illusion.

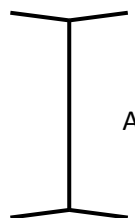


A

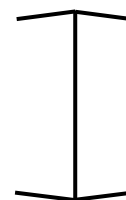


B

Version 1



A



B

Version 2

Participants were seated in front of a computer screen and shown one of the illusions. They were instructed to turn a knob that increased the length of line B until the two lines A and B appeared to be the same length. A computer recorded how far they turned the knob. For her participants the research recruited pairs of identical twins. One member of each twin pair was used for each version of the illusion.