

Peterson and Peterson (1959)

Aims: To prove that things only stay in short term memory for around 20 seconds and then, if it is not rehearsed, it disappears forever.

Procedures: Participants were given sets of trigrams to learn and then tested on their recall. They had to recall them after 3, 6, 9, 12 or 18 seconds. They also had an interference task, counting backwards, in threes from a random number. The independent variable was the time delay and the dependant variable was how good the recall was.

Findings:

After 3 seconds: 80%

After 6 seconds: 50%

After 18 seconds: Less than 10%

Conclusions: They had proved their hypothesis, there was very little left of the trace after approx. 20 seconds. It also proved that there was a distinct difference between the LTM and the STM.

Criticisms: It lacks mundane realism because the likelihood of the recall of trigrams in real life probably wouldn't happen. The trigrams are not meaningful. Other research has shown that more meaningful things are remembered.

Barrick et al (1975)

Aims: They aimed to test VLTM. They wanted to see whether long term memory was infinite.

Procedures: Participants included 392 American ex-high school students aged 17-74. Recall was tested in four ways.

- 1) Free recall of the names of as many of their former classmates.
- 2) A photo recognition test.
- 3) A name recognition test.
- 4) A name and photo matching test.

Findings:

90% accuracy in face and name recognition after 34 years.

80% accuracy for name recognition after 48 years.

40% accuracy for face recognition after 48 years.

60% accuracy for free recall after 15 years.

30% accuracy for free recall after 30 years.

Conclusion: Classmates were rarely forgotten once recognition cues had been given. This supports the idea that people have VLTMs. Recognition was better than recall.

Criticisms/Comments: This is a field experiment and therefore it can be generalised to the real world and this means it has high ecological validity. There would have been a great opportunity for rehearsal, increasing the rate of recall and therefore the results cannot be generalised to other types of information.

Bartlett (1932)

Aims: To investigate the effect of schema on participant's recall of a story. A schema includes expectations, attitudes, prejudices and stereotypes.

Procedure: 20 English participants took part in a natural experiment. They were presented with a range of stories, or folk tales, from different cultures, making it difficult for Western participants to understand their significance. They were then asked to recall the stories at periods of time.

Findings: Participants' recall of the story got shorter and shorter after multiple presentations. Participants often added their own Western words to substitute words in the story and so 'canoe' went to 'boat'.

Conclusion: Accuracy was rare in recall. Participants were actively reconstructing using their existing schemas. Memory is influenced by our existing knowledge, which in turn is created by the culture in which we live.

Criticisms: The intervals in between when the participants were asked to recall the story was different and therefore not entirely reliable. As the experiment was a natural experiment it meant that it lacked control of other factors which may have affected the results.

Demand characteristics would have suggested that the participants were supposed to react and they may also have acted in a way that the

experimenter wanted them to. These both add up to a lack of internal validity. Schemas are very vague.

Loftus and Palmer (1974)

Aims: Language used in EWT can alter memory. Leading questions could distort accounts of events, therefore making them unreliable.

Procedures: Participants were shown slides of a car accident involving a number of cars and then were asked to describe what happened as if they were eyewitnesses. They were then asked specific questions, including "About how fast were the cars going when they (hit/smashed/collided/bumped/contacted) each other?"

The independent variable was the wording of the question and the dependant variable was the speed reported by the participants. A week after the experiment, they were asked "Did you see broken glass?". There was no broken glass.

Findings: The verb used affected what they participants said. Those who were asked the 'smashed' question, thought that the cars were going faster than those who were asked the 'hit' question. Smashed: 41mph and hit: 34mph.

The speeds reported in descending order was smashed, collided, bumped, hit and contacted.

Conclusion: The question contained information about what the answer should be and therefore this language can have a distorting effect on eyewitness testimony, which can lead to inaccurate accounts. It is possible that the original memory had been reconstructed, but it is impossible to conclude that the original memory may have been replaced or experienced interference.

Criticisms: It does not have mundane realism because people would react to a car crash in real life completely differently and therefore lacks ecological validity.

It was an artificial experiment since it was held in a laboratory. It also may have given the participants clues as to what it was about and they may have acted to how they thought the experimenter wanted them to. Lacks internal validity.

