

Psychology A-level coursewrk, on imagery Vs rehearsal in memory!

Abstract

The aim of my investigation was to investigate whether imagery was a better form of memorisation then rote rehearsal.

Different psychologists have found one method to have a different level of effectiveness than the other.

The one-tailed hypothesis for this investigation would be “which is a better form of memorisation, imagery or rote rehearsal?” The hypothesis was mainly concerned with investigating which factor, either imagery or rote rehearsal was the better form of memorisation. To investigate this, my aim is to use a group of 6th form students and examine which is the better form of memorisation.

The study used repeated measures design. The sample I used was the opportunistic sample whereby I obtained those participants who were available to me at that time. I will be testing a representative sample of 20 students. The study will be carried out in a field setting. There will be some ethical issues that I will need to into consideration such as participants consent, right to withdrawal e.t.c.

The results were collected on a sheet (appendix). The words that were correctly remembered with the associated word were written down on the sheet. The participants were taken into a separate room so that other participants were not around, thus avoiding conferring and distraction.

The results obtained showed that imagery is a better form of memorisation then rote rehearsal. It was found that more people

INTRODUCTION

There are various ways in which we can encode stimulus inputs. It may be stored as a visual representation so that you form a visual image of either the printed word itself or a pictorial image of it, or you could form an acoustic representation by saying the written word aloud. Alternatively you could form a semantic representation of the word, this would depend on your knowledge on the meaning of the word. My aim for this coursework is to find out weather imagery is a better form of storing information than rote rehearsal.

Craik and Watkins distinguished between maintenance rehearsal and elaborative rehearsal.

- Maintenance rehearsal, in which material is rehearsed in the form in which it was presented (rote)
- Elaborative rehearsal, which elaborate the material in some way, e.g. by giving it a meaning or linking it with pre-existing knowledge

Many psychologists have done research to suggest the procesess of encoding information. Atkinson and Shiffrin proposed the multi-store memory model, it attempted to explain how information from one storage system to another. The multi-store model sees rehearsal as the key control process, which transfers which helps to transfer information from short term-memory to long-term memory.

The Brown-Peterson technique shows that STM's duration is very short and in the absence of rehearsal. However, information can be held in long-term memory almost indefinitely through maintenance rehearsal.

Other Psychologists have tried to explain that imagery is a better technique for memorisation rather than rehearsal.

Some psychologists who have done this are: Wollen et al (72). Bower and Springston Richardson et al (74).

AIM

My aim is to replicate the research carried out by Bower and Winzenz. They found that the imagery is a better technique for memorisation rather than rehearsal and that the participants of their research recalled more words using the technique process of imagery rather than rote rehearsal. The aim of the research is to see if the my findings will be the same as Bowers et al.

HYPOTHESES

Experimental hypothesis: There will be a significant difference between the number of words recalled using imagery rather than rote rehearsal, participants will remember more words using the technique of imagery rather than rote rehearsal.

Null hypothesis: If any difference occurs between the number of words recalled using imagery and the number of words recalled using rehearsal, it will be due to chance alone

DISCUSSION

From the experiment I found that recall was better when participants memorised the word using imagery. These results allow me to reject the null hypothesis, that all results will be due to chance alone and accept the experimental hypothesis. I have been able to fulfil my aim to find out if my findings will be the same or different as Bower's, the results are similar: that imagery was a better form of memorisation than rehearsal.

Although this is true for the general results if we look at the individual results: participant 6 re-called three words using rehearsal but only one using imagery, this is true for several other participants. This could be due to the fact that the participants were actually using the imagery technique instead of rote rehearsal even though we had asked them not to. This is a point that needs to be taken into consideration if a repetition of the experiment is to be done. However it could be that rehearsal may actually be a better technique of memorisation, as some psychological research has found this to be correct.

Some psychologists who found rehearsal is better technique for recall are Atkinson and Shiffrin, they found that rehearsal was a better technique for memorisation rather than imagery. They believed that memory traces in STM are fragile and can be lost within about 30 seconds unless they are repeated (rehearsed), if this is done then the materials remain for a lifetime.

Richardson (72) supported the fact that imagery was a better technique compared to rehearsal.

I think there are several ways for me to improve the research that I conducted if I were to re-do it. Instead of using sixth form students I will use adults, as some of the participants were not taking it seriously enough, that way the response is more likely to be more accurate.

The research that I carried out did not take place in a natural environment so this could have affected the participants in some way, as they were aware this was an experiment. I could not have carried out my experiment in any other way, however if that was possible I would have had to break ethical issues such as consent and debriefing the participants: it would have been deception.

I carried out the research in school, even though it was a classroom with its doors closed the participants were still affected by the noise made by other students walking past the classroom who were not participating in the experiment.

Another limitation is that the number of participants involved was very small, to generalise I would need a much bigger sample as this way I would not be taking into account individual differences.

Implications of the research: I could re-do this experiment but test imagery with other memory aids such as mnemonics and colour coding. As even though generally participants did better using imagery there were still some participants who did not, so it would be interesting to explore if other methods of recall are even better than memory

Also I could use a much bigger participant sample, as this would allow me to generalise my findings.

My findings support and strengthen Bowers' research but question other researchers such as Anderson and Atkinson and Shiffrin. More research is needed to discover what is the best method for recall.