

Andrade (Doodling)

Psychology being Investigated.

- ★ Attention - the concentration of mental effort on sensory or mental events.
- ★ Memory - refers to the encoding, storage and retrieval of information, potentially leading to long-term retention.
- ★ Concentration & doodling.

AIMS of psychology

1. To investigate whether doodling improves our ability to pay attention to auditory information.
2. To investigate whether doodling affects later recall of auditory information.

Background

Research shows we perform less when our attention is divided. However, doodling might aid concentration.

→ Wilson and Korn (2007) suggested that doodling may help to maintain arousal as we are ~~receiving~~ doing something physical while thinking.

→ Andrade defines doodling as sketching patterns or figures that are unrelated to the primary task.

Research Method

Laboratory experiment (unnatural settings)

Research Design

Independent measures design implemented as participants were either in the doodling or control group.

SAMPLE

- 40 participants - members of Medical Research Council of the Applied Psychology Unit.
- ~~Opportunity~~ ^{Opportunity} Sample
- aged between 18 - 55 years. (mostly women)
- paid a small sum
- Each experimental condition, there were 20 participants.
- * They had just completed participating in a study and were about to go home when they asked if they could spare 5 minutes in Andrade's study.

PROCEDURE

All participants listened to a dull telephone call about a party for 2.5 minutes, at a recorded speed of 227 wpm (words per minute).

IV - whether they doodled or not

DV - The responses to the 2 tasks to measure recall.

They were in a dull quiet room.

Participants were told that they would be tested on the names of the partygoers - Monitoring task. There was a surprise task where they were tested on the names of places mentioned - Recall task. The order of tests were counterbalanced to reduce order effects. The dependent variable was operationalised as plausible mishearings were counted as correct; totally ~~no~~ wrong names as false alarms; other words relating to people were ignored. The final score was the number of correct names minus the no. of false alarms.

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The call had 8 names of partygoers, and 3 people and a cat who didn't attend. 8 place names were mentioned. Participants were given standardised instructions. A4 sheets were given to participants in the doodle group with alternating rows of squares and circles, ten per row. It had a wide margin on the left to record targeted information. Participants were asked to shade while listening to relieve boredom. Participants in the control group were given a lined paper.

All participants listened at a comfortable volume. The experimenter apologised for conducting a surprise task and then conducted the 2 tasks. New names & the names mentioned on the tape as slurs were counted as false slurs.

RESULTS

Doodle group - mean no. of shapes shaded was 36.3 from range of 3-110. No participants in the control group spontaneously doodled.

The control group and doodling group made an average false alarm of 0.3 in the Recall task.

TASK 1: Monitoring Task Results.

- Participants of the control group recalled a mean of 7.1 names. 5 people made a false alarm.
- Participants of the doodling group recalled a mean of 7.8 names. 1 person made a false alarm.

OVERALL RESULTS

Doodling participants recalled a mean of 7.5 names and places, 29% more than the mean of the control group (5.8).

Recall for both tasks was better for doodlers, even when participants suspected of demand characteristics were excluded.

CONCLUSIONS

1. Doodling helps concentration on a primary task as doodling participants performed better than participants who only listened to a primary task.

2. Doodle group performed better on both tasks. There are

2 possible explanations:

- either doodling affected attention
- doodling improved memory by encouraging deeper information processing.

However, without a measure of daydreaming, it is difficult to distinguish between the 2 explanations.

Daydreaming could have been measured either through self-report or by using brain scans to identify reduced activation of the cortex. The cortex is associated with daydreaming.

STRENGTHS & WEAKNESSES

→ Extraneous variables could be controlled as it was a lab experiment. For example, people listened at a comfortable volume so there was no differences on stress of words.

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→ The standardised procedure made all participants equally likely to be bored and therefore daydream. For example, the same monotonous recording was used and all participants were sat in a dull quiet room. This improves validity as differences in results were due to doodling or not. There is high reliability as all participants were similarly bored.

→ The operationalisation of doodling was standardised by using the doodling sheets and this increases validity. The dependant variable was operationalised in terms of FALSE ALARMS and SCORE CALCULATION.

→ The participants aged from 18 - 55 years thus, were representative. However, they are from a recruitment panel and may be very ~~close~~ similar. For example, they all be intreseted in psychology. This could be bias the sample, therefore lowers validity. Futher, most of the participants were females.

→ The study collected quantative data, the number of names, places. This is an objective record of memory. It would have had been helpful to ask participants for self - reports of any daydreaming to understand whether differences in results were due to attention or daydreaming.

Ethical Concerns

Participants did not give informed consent fully for the recall task. This may have caused psychological distress. However, partielpants were debriefed and apologised to by

the researcher.

Application to Everyday life

When listening to a lecture, doodling might be advantages.

However, deliberately drawing by the researchers.

Individual vs. Situational explanation for behaviour.

As doodling affected recall, this shows a situational effect on the information processing. However, people do not doodle in the same way. This shows an individual difference between doodling behaviour.