

The Oreo Experiment

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Abstract: *The experiment is a replication of the popularly known marshmallow test conducted by the psychologist Walter Mithel, a professor at the Stanford University, in 1972 to investigate the relationship between delayed gratification and self - control skills. The test stated that 'PATIENCE' was the key to success and that it was a tool to chart the development of a young mind and to see how kids use their cognitive tools to conquer a tough willpower challenge. Also, the longer the kids were able to hold off on eating the brownie the greater will be their academic results and will face fewer behavioral problems.*

Keywords: Delayed gratification, self - control, marshmallow test, preschool children, environmental factors, success, and laboratory experiment.

1. Aim

The aim of this research is to test how long the children can control their urges to claim an immediate reward in order to gain a greater reward later.

2. Hypothesis

There were two hypotheses:

- The greater the students are able to control or delay their urges rising for the treat the more they will succeed in life
- Does the environment affect the ability to self - control

3. Research Method and Design

This was a laboratory experiment as the environment in which the participants were tested was not comparable to everyday situations although some attempts were made to make them feel in a familiar jolly environment but every action was kept standardized and decided. The design was independent measures since each participant was either in the control (distracted) or experimental (focused) group.

The independent variables were the level of distractions created (bean bags, puzzles, coloring, play cards etc.) and the dependent variable was the deferment of gratification.

4. Sample

Preschool (class 1) students from mayor school were taken with 7 students from each section with a total of 28 participants of which 20 were male and 8 were female participants. These participants were given certificate of participation for their time.

5. Procedure

Participants arrived at the Prayaas building of the school in the groups of seven and were told that they were going to

take part in a fingerprinting activity. This deception was necessary to limit demand characteristics and to ensure reliable results. The participants were not allowed to eat anything sweet on the day of the experiment.

During the sessions the participants were treated identically with the researcher talking, dancing, relaxing and playing with the participants and then the researcher made the participants watch and smell the treats and left them alone and while leaving asked them to do whatever they wanted. Also, the participants were being told that they can either have the treat now or one more if waited for 5 more minutes. Also, during this time any strategy performed by the children to keep them away from eating the treat was also recorded such as looking around, fidgeting, talking to themselves, playing with toys etc. In the experimental group the objects weren't left out for the participants to play but were placed in their places before the researcher went out whereas in the control group things were left as they were on the tables, floor.

6. Results

There are 4 children whose data has been discarded because 1 (female subject) showed demand characteristics and 1 (male subject) didn't wanted to ate so this was considered as the abnormal data and 2 (1 male and 1 female) were trials.

Participants who were exposed to distracted group were significantly playing more with toys with a mean of 0.83 than the focused group with a mean 0.36 of which female participants were more interested in playing games when compared to males with the female mean being 1 and male mean at 0.5. also, males in distracted group were more fidgeting mean being 0.4 and females at 0. Participants in the experimental condition were more likely to eat treat with the total mean being 0.421 of which males showed a slightly higher incidence of eating treats with the mean at 0.428 and female mean at 0.4.

Response Category	<i>Experimental Group</i>	<i>Control Group</i>
	<i>Focused</i>	<i>Distracted</i>
Playing with toys	0.36	0.83
Male	0.35	0.5
Female	0.4	1
Looking at treat	0.210	0.2
Male	0.214	0.25
Female	0.2	0
Talking with self	0.105	0
Male	0.07	0
Female	0.2	0
Eating the treat	0.421	0.2
Male	0.428	0.25
Female	0.4	1
Touching the treat	0.04	0
Male	0.06	0
Female	0	0
Fidgeting	0.23	0.4
Male	0.2	0.5
Female	0.33	0

7. Conclusion

In this study an association between the participant's deferment of gratification and distraction was found to be strongly positive. This replication proves the original hypothesis about self - control and later success in life to be true. There is a positive correlation between the degree of self - control and future success. The second hypothesis is also deemed to be true as the children who were distracted by toys and bean bags were less likely to eat the treat and lose self - control. Children who were in the focused group had paid more attention to the treat and hence, were not able to delay gratification. This proves that the circumstances around self - control do affect the degree of control exercised. This study used quantitative methods to operationalize the data. Qualitative methods were also used such as one view observation to collect subject data.

References

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