

A Comparison of Visual Memory of Two-Dimensional and Three-Dimensional Objects

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Abstract: The purpose of this experiment was to test people's visual memory and see which box was easier to remember. I created two boxes that were used to test people's visual memory. Three dimensional objects were placed in the first box. A picture of the three dimensional objects was taken and placed in the second box. The average amount of objects remembered in the 3D box was 8.1 objects while the average amount of objects remembered in the 2D box was 5.8 objects. From this I can conclude that it was easier to memorize the three dimensional objects.

Keywords: Visual Memory, Short-term memory loss.

INTRODUCTION

This experiment will test the effect of memory based on visual contact. Visual memory involves the ability to store and retrieve previously experienced visual sensations and perceptions when the stimuli that originally evoked them are no longer present. Visual Memory relates to the ability to remember what one sees. Certain individuals have difficulty recalling visual images immediately or after a long period of time. Frequent referring back to a visual challenge may never be noticed. When assessing whether or not a problem with visual memory exists, one must be sure the visual challenge was initially perceived accurately and then misremembered. The fact that a student takes longer at visual tasks may be all that shows to the casual observer.

METHODS

I used two cardboard boxes. I took 15 different objects and put them in each of the boxes. Then, I took a picture of the 15 objects and placed it in box number 2. I had about 25 different students observe the box for 1 minute and tell me how many objects they remembered out of the 15 objects.

RESULTS

As a result of studying 2D and 3D objects, I observed if it was easier to memorize things while looking at them in 3D or 2D. From this, I conclude that it is easier to memorize things while looking at them in 3D because you can actually see around the objects and observe them easier than just looking at the same objects on a flat surface.

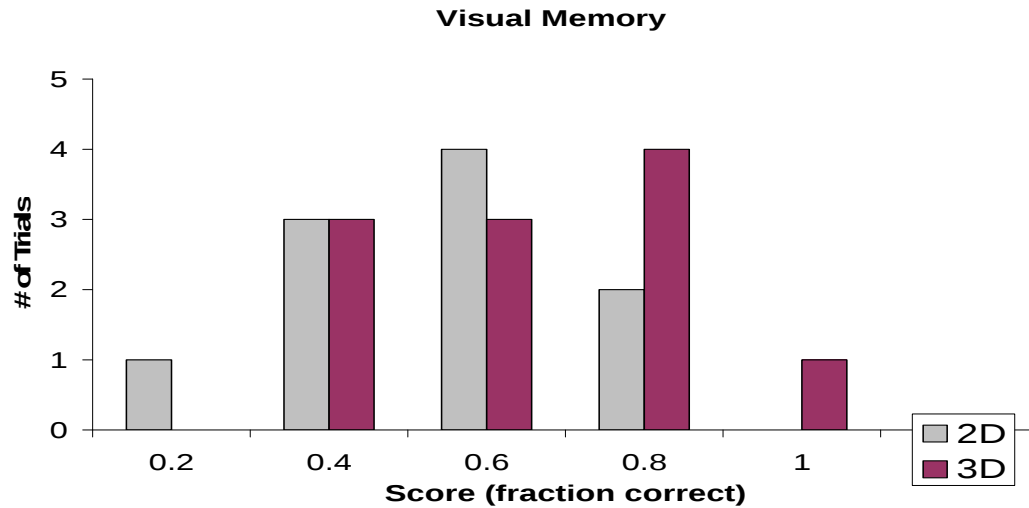


Figure 1. This graph represents the comparison of 3D and 2D visual memory

DISCUSSION

I had a few limitations to my science project. I found that the students who were tested had a greater difficulty observing the two-dimensional box. Students had an average of 3 more objects remembered while observing the three-dimensional box. This can conclude that 2D objects are more difficult to memorize in visual experiences. Also, 3D objects are simpler to memorize because of the way u can observe the object. You can actually observe the texture and form of the object which may help with memorizing the object way easier.

CONCLUSIONS

From the people that I tested, I was able to find out that it was easier to memorize 3D objects rather than looking at a flat surface. I think it is simpler to memorize 3D objects because you can actually look around the objects and see the details easily.

ACKNOWLEDGMENTS

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