

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

Summer S. Hammeras

Project Number

J0616

Project Title

Gorillas in Our Midst

Abstract

Objectives/Goals

My objective was to determine if a person performing an attentionally demanding task (counting basketball bounces) would notice an obvious detail(gorilla) if it were presented in different ways.

Methods/Materials

- 1. Create three different videos with two teams in black or white t-shirts bouncing basketballs.
- 2. Have a gorilla enter the video by either walking, running or walking through in a red jacket.
- 3. Show one of the three videos to different individuals and ask them to count the number of bounces by the team in white.
- 4. Record the results.
- 5. If the gorilla is not noticed, show the same video again with instructions not to count the bounces.
- 6. Record the results.
- 7. Compare the results from all three videos and decide which video did the best at capturing attention.

Results

As it turned out nobody saw the obvious detail (gorilla) when it ran through the scene (0/60). Some people saw the obvious detail in the video when the gorilla walked through (4/60), and when it had a red jacket on (5/60). I let all of the participants who missed the gorilla watch the video for a second time without counting. In the change of speed video, six people still did not see it.

I think nobody saw the gorilla the first time in Video 2 because it happened too fast. The reason why people saw the gorilla in Video 3 is because everything else was black and white but the bright red jacket caught their eye. Most people noticed color rather than speed according to my data.

Conclusions/Discussion

My experiment proves that it is challenging to focus on a task and try to see details at the same time. I think the age of the participants could have affected my results because much younger or older people had more difficulties concentrating on the task. In the future I would like to test my project on people of the same age because their abilities would be on the same level. Video like this could be a good training process for people who might be interested in police work or any job that is involved with a lot of action. These jobs need to be able to see obvious details around them even if they are performing another part of their job.

Summary Statement

A person's ability to notice an obvious change in a scene is usually much less than they believe.

Help Received

My mother filmed my three videos while my six friends played basketball; sixty people watched the videos; Dr. Daniel Simons helped to give me the idea for my project when my parents took me to a museum in San Diego.