CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
22184

Project Title
Auditory and Visual Short-Term Memory: Evaluation of Learning Strengths

Abstract

Objectives/Goals
The objective of this study is to determine whether high school seniors have better short-term memory when presented with stimuli in an exclusively visual presentation or in an exclusively auditory presentation.

Methods/Materials
Five random numbers were chosen and designated one of five positions on a piece of paper. Theset numbers and their locations were either read or visually presented, using PowerPoint, to groups of high school seniors. Two trials were conducted for each of the five classes for each of the 2 days alternating the mode of presentation.

Results
The average number of correct responses when the numbers were presented auditorily was 2.786, whereas when the numbers were presented visually the average number of correct responses was 3.349. When the numbers were presented auditorily 12% were not able to get four or five correct responses. When the numbers were presented visually 3% were not able to get any correct responses and 49% were able t recall four or five correct numbers.

Conclusions/Discussion
This study confirms the hypothesis that visual short-term memory appears to be stronger than auditory short-term memory. In general, students recalled more numbers and their designated position when they were presented visually rather than auditorily. The implication of this study is that teaching should include multiple modes of presentation including visual as well as auditory.

Summary Statement
When asked to recall five random numbers, students displayed better short-term memory when the numbers were presented visually rather than auditorily.

Help Received
Mrs. Marilyn Sniffen # Gate Science Advisor