



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Kaitlin M. Walker	Project Number S0319
Project Title Perceptual Modalities: The Key to Increasing Performance	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals To discover the link between matching preferred learning styles (visual, auditory,tactile)with corresponding teaching methods in order to assist students to perform better on memory tasks. To demonstrate the importance of considering a student's preferred learning style when deciding what teaching modality to utilize to maximize learning outcomes. I hypothesized that students would perform better on memory tasks when the teaching methods used to assist them matched their preferred learning style.</p> <p>Methods/Materials I administered the Learning Style Inventory and the Checklist for Discovering Learning Channels to each of my 50 subjects. I scored the inventories to identify the preferred learning style of each subject and recorded the data. I developed 3 random lists of 15 memory word items to be used as memorization activities. For the control, I showed each subject the list of random words for a period of 1 minute. I recorded the number of words recalled for each of the 3 lists without any training. Next, I trained the subjects for 2 minutes using a visual strategy. The subjects had 1 minute to recall and write the words. I recorded the data and repeated the process using the auditory and tactile teaching strategies. For the tactile strategy, students put Popsicle sticks with matching words on a corresponding sheet. I compared the results for each teaching technique to determine which strategy produced the highest memorization score for each subject.</p> <p>Results Of the 50 subject, 25% were identified as auditory learners, 44% were visual, and 31% were tactile. 85% of the students who received training in their preferred modality made gains in their ability to recall random words from the list of 15 items. The results of my data supported my hypothesis. Only 6 of the subject's ability to recall items decreased after being exposed to a certain training modality. 3 out of these 6 may have been distracted by the tactile teaching strategy.</p> <p>Conclusions/Discussion It would be necessary to conduct extensive research, over time,utilizing more difficult memorization/learning tasks to validate my results. Most people do have a dominant learning style that should be considered when teaching them to increase performance.</p>	
Summary Statement My project is about the importance of considering a student's preferred learning style when deciding what teaching modality to utilize in order to maximize learning outcomes.	
Help Received My classmates and students in the Ventura Adult Education vocational program served as subjects.	