



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Claryce N. Lazerson	Project Number J0618
Project Title Brain-Teasing, Memory-Implanting, Mind-Melding	
Abstract Objectives/Goals The objective was to determine which age group and gender would be more susceptible to implanting a false memory as time elapses. Methods/Materials I found 30 volunteer subjects, 10 for each age group of six (6) to eight (8) year olds, 13 to 15 year olds, and 40 to 50 year olds, with five (5) females and five (5) males in each age group. Each person was tested three (3) times on three (3) separate word lists and asked to recall which words from the first list appeared in the second list. In each of the three (3) tests, the time was changed between each word list from one (1) minute to three (3) minutes and then to five (5) minutes. Responses were recorded on individual data sheets and in a journal. Overall results were then recorded. Results The experiment demonstrated that it was easier to implant a false memory in 13 to 15 year olds. This occurred because many of the six (6) to eight (8) year olds were a little confused at first and then were more easily implanted by the second and third tests. Males, rather than females, were also more easily implanted, according to the results. The three (3) minute time period proved to be the test which implanted the most false memories, though there was not a significant difference between the other time periods. Most volunteers used word association to recall the words from the first list. This actually resulted in the ability to more easily implant a false memory. Conclusions/Discussion Memory implanting has been used as a therapy technique to help people overcome certain traumatic events in their lives and to help the mentally disabled to learn to do simple tasks. It has also been misused by criminal investigators to persuade witnesses to testify falsely. Females are generally better than males at remembering word lists. Younger children have less developed brains and are more easily susceptible to memory implanting. As more time elapses it becomes harder for the working memory to recall information. This explains why younger males were easier to implant false memories over a relatively longer period of time than older males or females. Research such as this may help to raise awareness that memory implanting may be misused and may not always be easily avoided.	
Summary Statement My project is about which age and gender may more easily be implanted with a false memory as time elapses.	
Help Received Mom helped with project idea, finding test subjects, creation of word lists, and graphs. My sister helped with board design. Science teacher gave suggestions.	