# CALIFORNIA STATE SCIENCE FAIR
## 2005 PROJECT SUMMARY

**Name(s)**
Colette V. Roblee

**Project Number**
**J0331**

**Project Title**
## Can You Teach a Dog to Read?

**Abstract**

**Objectives/Goals**
I investigated whether dogs are intelligent enough to recognize visual and scent queues the way they understand verbal queues. I also wondered which sense they respond better to: sight, scent, or both.

**Methods/Materials**
Three sets of non-verbal queues were used to get my pet dog Terra to obey each of three different actions: sit, down, and shake. The queuing methods were: 1) a blank sheet of paper with a unique scent for each command, 2) the same scents on lettered paper for each command, and 3) the same lettered paper with no scents for each command. Each of the three sets of paper queues was shown to the dog three times a session for each of the three actions for a total of 27 measurements a session. We had a session almost every day for 17 days.

**Results**
There are four major findings from my experiment:
1) There is much scatter in the data from day to day. This is probably due to several factors, but one important thing we noticed was that Terra had quickly learned to #guess# by trying all three tasks in a row. This made it difficult to judge success, and it was hard to keep a regular standard. Some nights I went a little soft, and other nights I was stricter.
2) She was least successful on the #down# command. She only succeeded for all of the #down# queues an average of 63% of the time over the 17 days. She had a success rate of around 75% to 80% for the other two commands #sit# and #shake#. I think this is because it was the most difficult for her to do.
3) There was a slight but steady increase of Terra#s average success rate over time. Over the first 5 days, she had an average success of about 5.7 out of 9 attempts. By the final 5 days, she had about a 7.2. This shows that she gradually learned how to recognize some of the symbols, and with more work and practice, Terra may be able to master this skill.
4) There was virtually no statistical difference between success rates for the sight, scent, and combined queues. The global average success rate for over the entire period was about 73% for all 3 methods of queuing. This was the biggest surprise of the experiment, and I don#t know why. My best guess is that she guessed.

**Conclusions/Discussion**
The overall conclusion is that, at least for our dog, it would take a lot longer than 17 days for her to catch on to #reading# (recognizing written symbols or scents).

**Summary Statement**
I investigated whether dogs are intelligent enough to "read" visual and scent queues the way they understand verbal queues and found out that dogs are good guessers.

**Help Received**
Papa helped with spreadsheets and typing.