



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Kenneth E. Jeffris	Project Number S0499
Project Title The Effects of Traditional Face-to-Face Learning and Web-Based Distance Learning Using Skype	
Abstract Objectives/Goals This is an experiment designed to investigate the effects of distance learning via a two-way telecommunication service and traditional classroom learning, demonstrated through the scores received on a standardized multiple-choice test. Methods/Materials The experimental (n=13) and control (n=16) groups consisted of 16-18 year old, predominantly Caucasian male and female students from two rural high schools in the western United States. All were acquired through a purposive sample. The experiment was carried out during one class period with one test for both groups. The control group consisted of students in a traditional classroom setting, where a teacher gave a lecture on Bandura's social learning theory. The experimental group consisted of students in a distance learning setting where they received the same lecture at the same time as the control over Skype#. The independent variable was the mode in which participants viewed the lecture, and the dependent variable was the score received on a standardized multiple choice test on the material covered in the lecture. Results A one tailed t-test demonstrated that there was no significant difference at the $p < .05$ level, showing that distance learning is a plausible substitution for traditional classroom learning. Conclusions/Discussion In conclusion, the null hypothesis, which in reality was the research hypothesis, failed to be rejected. There was no significant difference at the $p < .05$ level between the comprehension levels of students who received a lecture over Skype # and those who received it in a traditional classroom setting.	
Summary Statement The aim of this study is to replicate the findings of Collins and Pascarella (2003) to show that students who learn over a distance over Skype# learn just as effectively as those who learn in a traditional classroom setting.	
Help Received Under supervision of IB Psychology teacher.	