



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Kristina R. Arroyo	Project Number S0302
Project Title The Effect of Driving Distractions on Driving Performance of Adolescents	
Abstract Objectives/Goals This study examines the effect of driving distractions on the driving performance of adolescents within the Southern Californian region. Methods/Materials Prac: The subject will have one practice run through a different driving course. simulator. 1: Control stage- The subject will complete the course without any distractions. 2:The subject will complete the driving course while being engaged in the distraction of a passenger conversation. My dialogue composed of typically asked questions. 3:The subject will be engaged in the distraction of dialing a cellular phone. I will read aloud phone numbers simultaneously which the subject will have to dial while driving. 4:The subject will complete the driving course while being engaged in the distraction of finding music to listen to. The subject will locate the CDs and tune the stereo to the designated track number. Materials: Need for Speed: Underground 2004,Playstation 2 System,CD Stereo,InterAct V3 Gas & Brake Pedal, V3 Steering Wheel,Cell phone Results The results of this experiment indicate that the research hypothesis was, indeed, supported. Both the completion times and the number of crashes increased as the necessity for attention increased. The average completion time of adolescents under no distraction was 113 seconds, 123 seconds with a passenger conversation, 123 seconds with cellular use, and 128 seconds with stereo adjustments. The average amount of crashes has also resulted in an increase. The control phase with no distraction averaged three crashes, four crashes during the passenger conversation phase, five crashes while dialing a cellular phone, and five crashes when adjusting the stereo. The results indicate that the addition of distractions significantly affected driving performance. Conclusions/Discussion The research hypothesis was supported with the following information; in the control stage, the average completion time of adolescents was 113 seconds, rose by 10 seconds with a passenger conversation and cellular use (averaging 123 seconds), and adjusting the stereo resulted in 128 seconds.The average amount of crashes increased. The control phase averaged three crashes. Adolescents averaged four crashes during the passenger conversation phase, five crashes dialing a cellular phone, and five crashes when adjusting the stereo.As the necessity of attention increased, the number of crashes and time of completion increased.	
Summary Statement This study examines the effect of driving distractions on the driving performance of adolescents within the Southern Californian region.	
Help Received Conducted research in SDSU library; Teacher guided use of statistics (T-tests, etc.); 100 adolescents participated in project	