



# CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

<b>Name(s)</b> Grace I. Ng	<b>Project Number</b> <b>J0314</b>
<b>Project Title</b> <b>Perception vs. Reality on Sport Drinks: Are You Label-Able?</b>	
<b>Objectives/Goals</b> The ability to read nutrition facts labels is crucial when choosing healthy foods. This research is trying to determine which age group, middle school students, high school students or adults and which gender interpret the nutrition label most accurately.	
<b>Abstract</b> Devise a questionnaire to record the subject's age group, gender, ranking of sport drinks. Select subjects from a middle school, high school, and the general population. Select the top five sport drinks based on a pilot study on common sport drinks consumption. Subjects were first asked to rank the sport drinks based on prior knowledge of the sport drink. Subjects were then asked to rank the sport drinks again after they read the nutrition facts label. Questionnaires were then checked for completeness upon turn in. Comparisons were made between before and after among different age groups and gender. Comparisons were also made between subject#s ranking and an objective ranking.	
<b>Methods/Materials</b> Devise a questionnaire to record the subject's age group, gender, ranking of sport drinks. Select subjects from a middle school, high school, and the general population. Select the top five sport drinks based on a pilot study on common sport drinks consumption. Subjects were first asked to rank the sport drinks based on prior knowledge of the sport drink. Subjects were then asked to rank the sport drinks again after they read the nutrition facts label. Questionnaires were then checked for completeness upon turn in. Comparisons were made between before and after among different age groups and gender. Comparisons were also made between subject#s ranking and an objective ranking.	
<b>Results</b> There were a total of two hundred two subjects who completed the questionnaire. 61 subjects (30%) were middle school students, 70 subjects (35%) were high school students, and 71 subjects (35%) were adults. 68 subjects (34%) were male and 134 subjects (66%) were female. Less than half of the subjects were able to identify the presumably healthiest sport drink; similarly, only 29% of subjects identified the least healthy sport drink correctly. Sport drinks ranked the highest on the appearance continued to rank the highest after subjects reviewed the nutrition facts label (Before:After 47%:51%). Two sport drinks ranking moved upward (Before:After 23%:29% and 24%:26%). Two other sport drinks ranking moved downward (Before:After 26%:22% and 27%:16%).	
<b>Conclusions/Discussion</b> The results support the hypothesis that adults have the most accurate perception and evaluation of sport drinks, with or without the nutrition labels. It is demonstrated by the relative coherence rankings for the most and the least healthy sport drinks, before and after reading the nutrition facts label, for the adults. On the other hand, the lack of unity of rankings among most sport drinks within different age groups may imply the knowledge that all subjects acquired formally and informally are not adequate to equip them to make educated choices among an array of sport drinks.	
<b>Summary Statement</b> Perception and interpretation of sport drinks and their nutrition fact labels among different age groups and genders.	
<b>Help Received</b> Thank you to my parents for giving me support, encouragement, and valuable advice; Mrs Armstrong for her trust and helpful suggestions; Miss Smith and Mrs. Maiorca for allowing me to conduct my survey in their classes.	