



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Annick Aubin-Pouliot	Project Number S0303
Project Title Brain, Mathematics, and Languages: Impact of the Timing of English Learning on Mental Activities Performed by Bilinguals	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Humans possess the important ability to communicate and perform mental activities by using elaborate language. Bilingual people have the option to perform those activities in different languages. What language is the bilingual person most likely to count it? The objective of this work is to see if there is a correlation between the languages used to perform mental activities and the moment English was learned.</p> <p>Methods/Materials A group of 57 randomly selected bilingual persons living in an English environment (the San Francisco Bay Area), with English as their second language, were asked to answer a series of language related questions.</p> <p>Results First language (other than English) is strictly used to dream, think and perform mental calculations in a proportion of 15, 28, and 62% respectively. The proportion of people performing mental calculations in their first language decreases with the duration of the time spent in the English environment: 86%, 66% and approximately 50 % for a length of stay of less than 5 years, 5 to 10 years, and more than 10 years, respectively.</p> <p>Conclusions/Discussion Among the three mental activities, to dream, think and perform mental calculations, the latter requires the longest time in an English environment to be done in English. At any stage, when people perform mental calculation in their second language, the other activities are also done in this language. The moment of English exposure plays an important role to determine the language used to perform mental calculations later in life.</p>	
Summary Statement The correlation between the language used to perform mental calculations and the time the second language was learned and the length of stay in an English-speaking environment, while comparing it to dreaming and thinking.	
Help Received Father overviewed and corrected my work.	