



## Colorado Science and Engineering Fair

## 2024 Individual Project Abstract Form

**Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.**

Title of Project: What Language Do You Think In?

Finalist's Name: Bianca Perez Ramos

School and City: West Grand High School Kremmling

Sponsor's Name: Bree Moonen

Category: Behavioral & Social Sciences (BEHA)

Division: Senior (9th - 12th grades)

Abstract (250 words or less):

The purpose of this project was to determine in what language bilingual people think in and compare it to what language they are most comfortable speaking. The motive of this project is to help people understand how bilingual people think differently than monolingual people. Knowing that bilingual people speak in one language and think in another language will give us more empathy about the amount of brain power bilingual people use to think. I hypothesized that if I ask a bilingual person a question without using any language, then they would think in their primary language.

The experiment involved giving eight bilingual students a short math quiz in a quiet area. Once they finished the quiz, I asked two questions: What language did you think in? and What is your primary language? After this, I recorded and analyzed all of the information in a data table.

The data collected did not support my hypothesis. Three out of eight people thought in their primary language, and four out of eight people thought in their secondary language. There was one remaining person who thought in both languages.

These findings lead me to believe that people don't just think in one language, they can think in more than one language. Based on my data, the majority of people thought in the opposite language from their primary language. This means that the majority of people I tested used the language they were not as comfortable with, using more brain power to answer the questions.

*I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.*

Finalist's Signature:

Date:

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES of all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.