



# Colorado Science and Engineering Fair

## 2025 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: Technology With the Youth

Finalist's Name: Anabelle Pettinger

School and City: Vilas Undivided Vilas

Sponsor's Name: Pam Nicodemus

Category: Behavioral & Social Sciences

Division: Junior (grades 6 - 8)

Abstract (250 words or less):

### Objective

Technology With the Youth is a two-year study examining technology's impact in first through twelfth-grade classrooms. While research on technology use in higher education is extensive, secondary education remains underrepresented. Academic decline and mental health concerns are often attributed to the pandemic, leaving gaps in understanding technology's role. This study aims to address these gaps by analyzing its effects on student performance.

### Methods

At Vilas School, where enrollment is small, I recruited ten student volunteers from various grades over two years, with parental consent. Each student took four state-standardized tests: two online and two on paper, covering English and math. Tests were administered one week apart, with unlimited but timed completion. Scores were recorded, compared, and graphed.

### Results

Out of 20 tests, 10 showed improvement on paper, 9 had consistent scores across both formats, and 1 had a lower score on paper than online.

### Conclusion

Findings suggest students performed better on paper-based tests. However, results may be influenced by small sample size, comprehension levels, and learning disabilities. Future studies should control for these variables by selecting students with similar ability ranges. Understanding technology's educational impact is crucial, and further research is needed to optimize learning strategies for future generations.

*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.**