

CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

Name(s)

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Project Number

J1405

Project Title

Plagiarism Analysis Program

Abstract

Objectives/Goals

To create a program in the C# programming language that is capable of pairing texts together as plagiarized off of each other.

Methods/Materials

PHYSICAL MATERIALS:

- 1. Group of students to write a paragraph
- 2. Paper to write on
- 3. Pencils
- 4. Controlled classroom environment
- 5. List to track students who plagiarized
- 6. Computer
- 7. Calculator to find program accuracy

SOFTWARE:

- 1. Plagiarism Analysis Program
- 2. Notepad or other text editor to compare data

Results

1. To determine if the program successful: Did it catch at least half of the students who plagiarized? 2. To determine the overall accuracy of the program: Divide the number of correctly identified cases of plagiarism by the actual amount. Was it at least eighty percent? FINAL RESULTS: 1. The program did accurately detect plagiarism. It successfully paired together 20 out of 22 texts as plagiarized (more than half) 2. The program's accuracy was over 80%. After dividing the total amount of correct results (20) by the total texts (22), the percentage returned was 90.9%.

Conclusions/Discussion

For my experiment I created a program in the C# programming language to pair texts together as plagiarized. I hypothesized that the program could successfully pair together at least half of the texts, and would have an overall accuracy of at least 80%. I gathered a group of 44 students together in a controlled classroom environment to obtain the paragraph samples required for my experiment, that conducted the analysis with the program at home. My hypothesis was correct. The program did accurately detect plagiarism to the conditions specified (Giving accurate results at least half of the time). Additionally, the program's accuracy was 90.9%, which was 10.9% higher than the required 80%.

Summary Statement

The aim of my project is to create a computer program in the C# programming language that can detect plagiarism between two texts.

Help Received

Used students of Mrs. Cameron to obtain texts; Obtained help with testing methods from Mr. Briner; Support from parents