IPRO 330

Creating a Science Fair Archive for Chicago Public High School Students
Introduction

• Presenters:
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Problem

- American math students rank in the bottom 20% internationally
- Urban 8th graders perform worse on science standardized tests
Our Purpose

• Increase quality of math and science education in Chicago Public Schools (CPS)
• Instill a love of math and science in CPS students
• Help students and teachers execute science fairs well
Research

• Judged CPS science fairs
  – Discussions with students
  – Study good and bad projects
• CPS teachers/administrators
  – Chris Dignam, Kevin Hall, Eric Williams, Tammy Butler
Objectives

• Develop a science fair archive
  – Science fair project bank
  – Data analysis/presentation guides
  – Links to useful sites, resources

• Broader impacts
  – Define “math-centric” project
  – Guides used beyond science fair
Project Plan

• Team divisions
  – Projects, Guides, Website
  – Parallel Organization
• Weekly meetings/updates
• Bi-Weekly quotas on development
• Monthly meetings with CPS
Deliverables

• Project bank & links
• Data analysis guides
• Presentation skills guides
• Website (access for CPS)
Communication

- Teams meet/report on iGroups
- Google Docs for joint files
- Team familiarity prior to IPRO
Difficulties

- Loss of advisor
- "Math-centric" definition
- Ethical issues
  - Allowable project materials
  - Questionable project topics
Team Results

- Broad spectrum of projects
- Useful guides
  - Statistics
  - Paper writing
  - Display
  - Verbal presentation
- Website updated frequently
Future Work

• Feedback from CPS students
• More projects and links
• Rating system to judge projects
• Online forum for discussion
Questions?