IPRO 330 Midterm Report

1. Revised Objectives

The current objectives of the team are essentially the same as they were originally. We still plan on encouraging high school students to enjoy math and science by participating in science fair. To accomplish this we will generate an archive of projects, techniques of data analysis and presentation, and create a website on which to post this archive.

2. Results to Date

Thus far the project has progressed exactly according to plans. We have fully completed 25% of the necessary projects, compiled 30% of the necessary presentation data and set up the website. We also have had a meeting with three key individuals in Chicago Public Schools at IIT. Subsequent to this meeting we were invited to another larger meeting in which representatives from 23 Chicago Public Schools were attending. We gave a presentation at this meeting which was well received and after which we received valuable input about the course of our project.

This input has not changed our timetable at all, but it has helped our focus by informing us of the need for math projects in Chicago science fair. It also has confirmed some of our suspicions about effective web sites for high school students. These teachers and administrators have offered to often view our website and provide feedback throughout this project. As of right now we have not had testing or results, but we will before the end of this semester. The only product which will result from testing really is the actual science fair archive itself, but hopefully an improved version because of testing. We don't necessarily have a sponsor (certainly not a fiscal one) thus there is not necessarily a deliverable, but we are providing this website to CPS as a service to society and mathematics.

3. Revised Task / Event Schedule

Honestly, there are no changes of significance to our schedule as it existed at the beginning of this project. We have worked diligently thus far and there have been no set backs, save for the health issues of one of our teammates; and even he has continued to work consistently. Our tasks continue to be the same, and divided in the same 3 sections: design math-oriented projects for the science fair, produce techniques for analysis and presentation of results, post the results from this on a website designed for high school students.

The subtasks also have remained essentially the same. There is an added focus now for the project team help to define the contents and materials required for a math project. This hasn't changed the schedule for this subteam, simply added a new angle for the projects to consider. There is an additional change which has occurred in the presentation team which now requires them to ensure that students between grades 7-12 can access the concepts posted. Originally we thought that only students grades 10-12 participated in the science fair but we have since learned that it is in fact a larger group. Once again, this does not affect the time schedule, but rather the content of the events. There have been no changes to the website team.

Here is an estimate of the time required to complete our tasks given the accomplishments we have made thus far:

- 3 members of the Web Team
  - 10 hours to find/create artwork
  - 25 hours to code HTML/PHP for development of the website

    - 20 hours to convert materials from other teams to appropriate format
- 4 members of the Presentation Team
    - 25 hours to create material for analysis of data/experimentation
    - 25 hours to create material for presentation of results
- 4 members of the Project Team
    - 10 hours for research of current projects, especially math related
    - 10 hours for creation of project ideas
    - 30 hours for development of projects into finished form (12 more)

4. Updated Task Assignments and Designation of Roles

5. Barriers and Obstacles

These two sections will be discussed simultaneously because there were considered in parts as the subteams.

Presentation Team: (Tony, Deep, Chad, Tom)

The presentation team is focusing on three main aspects of the presentation, the oral presentation, the written presentation, and the display presentation. In regards to the oral presentation, we are focusing on giving students ideas on what points of the experiment the students should make sure to cover in their oral presentation, what parts of the experiment should not be stated in the presentation because it is too repetitive, and giving the students general tips on oral presentations. In regards to the written presentation, we are focusing on what material needs to be put into the research paper and how to format this information. This begins with giving students ideas on where they can research their topic. In regards to the display presentation, we are focusing on giving students a guide on what to put on their science fair board, what the arrangement should be, and how to add other aesthetically pleasing items to the board.

One obstacle has been the difficulty to meet with all of the sub-team members outside of class at some point. On occasion, we may disagree about how to present something to the students, but we have done a great job of compromising these things. We will be splitting our tasks up even further so that everyone has an assignment and can get it done by a certain deadline to submit to the whole of the team project. In general, the project team has needed a little more assistance with creating science fair ideas. The remainder of the team is assisting them by creating science fair ideas from all of the different sub-teams.

Project Team: (Shayne, Kevin, Jane, Kai)

The Project subteam is in charge of finalizing the ideas for projects into a standard format, providing detailed explanation as well as pictures and figures to help students to understand the project, and pass the completed product along to the website team to be posted online. Even though the entire group is still providing ideas for projects, it is the duty of ach member of the project subteam to take a project idea and work on it individually, making the necessary additions and changes to turn it into a website-ready project.

We have run into two main issues in science fair project development thus far. The first issue involves how much information to give to the children. We want to provide a detailed explanation of how to do the project, but at the same time do not want to do the entire project for them, and finding a middle ground is something that even now we are working on. For the most part, use of good judgment has helped us to determine exactly how much is enough and what information should be provided versus what information should be discovered by the student. The other issue is the proper formatting of a completed project. At the start, each member of the subteam had different ways of organizing their projects, but the website team converted them into a standard format which we plan to use on all subsequent

projects.

Our main obstacles now are getting more project ideas and finalizing enough to meet our goal in the next month. As long as each member of the subteam can finalize one project a week and everyone in the team continues to come up with suitable ideas we will achieve our goal.

Website Team: (Jon, Brian, Mike)

The primary task of the web design team is the presentation of the materials developed by the other two teams. The information gathered and supplied by the presentation and project teams must be displayed in an attractive and useable fashion. Aside from design, the team must also keep an eye on the function of the site, watching for dead links and missing pages. Together they have already designed the framework for the website, with a fairly basic template for projects and presentation guides in place. Several projects and a guide have already been appropriately formatted and posted to the web.

Once the team had obtained access to the server upon which the website was to be built, the rest fell into place without any major snags. There are no major obstacles on the horizon at this point, either; the most important task at hand is the addition of PHP to all of the site's pages to simplify the modification of standard elements which will be shared by each page. Perhaps the most difficult and subjective problem will be aesthetics – since none of us are artists, it might be a significant struggle to produce a website that is pleasing to the eye as well as functional. The current plan is to take inspiration from other, perhaps similarly oriented, websites to compile some ideas and finalize the site's appearance. Once this is accomplished, the only goal on the horizon is the addition of whatever materials the other two subteams produce. Putting these project ideas and guides online is a time consuming matter but is not overtly complicated, so no other barriers are anticipated for the web team before the end of the semester.