

**Goal** IPRO 329: Edutainment is an IPRO that invests all its efforts into the education and entertainment of today's youth. We derive our name by combining "Educate" and "Entertainment." The way in which we accomplish both these goals is through computer games. Currently, we are working a game called *Scholars of the Lost Exhibit*. This game is a supplemental learning tool for fourth-grade students. It introduces children to different topics in such subjects as math and science. We not only create the game, but also we user test it within local elementary schools. User testing keeps us connected to our key demographic.

**Tasks** Our group organization was such that individual teams within the IPRO were assigned specific tasks to effectively reach the goals of the IPRO. These teams are Design, Development, User Experience, and Management. Each team had focused tasks:

#### Design

Research all content for the games; develop mock-up sketches and screen shots for the look and feel of the game(s); Focused on development specific curriculum to ensure it meets top education standards (the top state for education is Vermont); redesign games after user testing is complete; develop game protocol; illustrate game protocol through the development of flowcharts.

#### Development

In charge of all programming; finish coding of the Science wing; work on the main menu and other facets of the user interface including character selection (this task is very important because without constant progress in the actually programming of the game, we will not continue our current productivity).

#### Management:

Ensure all IPRO deadlines are met; complete all IPRO deliverables; ensure all files are properly documented and filed in an organized and predetermined way on iGroups; record progress through team and individual reports; constructing, distributing, and managing peer evaluations; market the IPRO properly.

#### User Experience:

Conduct research, interviews, and observations to gather information about gaming solutions based on the game's target audience's likes and dislikes; enter into different elementary schools during the semester to gather this data; have video documentation of this progress ready to display on IPRO day; present their findings to the Design team in order to help create a more effective and targeted game.

## Achievements

#### Design

Researched the Vermont curriculum and national standards of math and science education; completed basic design of the water cycle game; researched and gathered information and created content/questions for the Water Cycle Game; redesigned major aspects of the Constellation Game with the help of the Development and User Experience teams; researched and developed content/questions for the Planet Game; helped finalize aesthetic aspects of the Planet Game; developed game protocols for Science and Mathematics Wings; translated consent letter to Spanish for the User Experience team.

#### Development

Completed the Constellation Game and handed it off to User Experience for testing in Chicago Public Schools; made immense progress on the Planet Game (inserted content from Design into the game, improved user interaction for when the students drag the planets); added other features to the entire game including a functioning tool bar, modified tool bar and navigation buttons, and icons to match each of the games (which were developed by the Design team).

#### User Experience

Researched various children's games already available either on line or on CD; took Constellation and Planet Games into Chicago Public Schools to gather data on the student's reactions to the games; administered pre- and post- tests to students in the Chicago Public School system; captured parts of user testing on video to utilize for the exhibit on IPRO Day; all members of User Experience as well as the entire IPRO became certified by the IIT's Institutional Review Board (IRB) for research purposes and

#### Management

Successfully managed the IPRO deliverables throughout the semester by tracking each team's progress and reporting it efficiently; designed and implemented a peer evaluation strategy that allowed everyone in the IPRO to see where he or she stood with his or her peers; developed a new grading scheme based on the peer evaluations; ensured that all groups were utilizing iGROUPS; improved internal communication through e-mail and face-to-face meetings; started marketing our product to gaming companies.

## Outcomes

Our team's combined efforts fostered vast improvements in not only the overall development of *Scholars of the Lost Exhibit*, but also in the game content, which seeks to help Illinois students become more educated by following Vermont educational standards. While it cannot be said when the game will be completed because it is such a large task, members of IPRO 329 improved iterative teamwork skills and interpersonal communication skills throughout the course of the semester.

## Next steps

IPRO plans to submit our science games to competition, continue to collaborate with the Children's Museum by demonstrating a game at the museum, finish development of the Science wing and initiate development on the Mathematics wing.

## The Team

### FACULTY ADVISOR

Dr. Susan Feinberg  
feinberg@iit.edu  
312.567. 3471

### Design

Lauren Joyce  
(Project Manager)

Carlos Ceballos  
Jeff Cecil  
Matthew Furukawa  
Callie Johnson  
Javier Martinez

### Development

Doug Stauber  
(Sub-Group Leader)

Konrad Barnicki  
Deborah Kinnach  
Richard Thompson

### Management

Adrienne Chin-Perez  
(Sub-Group Leader)

Sonia Goyal

### User Experience

Prateek Sanan  
(Sub-Group Leader)

Sachin Jain  
Rohit Loomba  
Vishal Pandya  
Yagna Parthak