

Do What I Mean? (An introduction to applied usability)

CRN: 5790

PGTE 5043 - A

Room - 303 @ 55 West 13th St.

Fall 2006

Instructor: Rees Shad

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This course will explore primary issues relating to usability studies, why they are necessary, their application, and their influence on design. Students will investigate various methods of conducting usability studies for original designs through testing scenarios and heuristic analysis. Students will then analyze their collected data and learn to apply that data to their own (and each other's) designs. The final assignment will revolve around the presentation of a paper analyzing a design of their own, the testing process and the influence of testing on that design.

Readings:

- Joseph Dumas' & Janice Redish's *A Practical Guide to Usability Testing*
- Steve Krug's *Don't Make Me Think*
- Mike Kuniavsky's *Observing the User Experience*
- Brenda Laurel's *The Art of Human Computer Interface Design*
- Jakob Nielsen's *Usability Engineering*
- Donald Norman's *Things That Make Us Smart*
- Jeffrey Rubin's *Handbook of Usability Testing*
- Carolyn Snyder's *Paper Prototyping*

Necessary Materials:

- Digital video camera (if absolutely necessary a still camera will do) for recording field observations and usability testing.
- Portable memory solution such as portable hard drive or memory stick with at least 500mb available for transporting work to and from class
- Blank CD-R(s) or DVD-R for final deliverable

In Class requirements: As many students may use a laptop in class, it is imperative that outside distractions such as instant messaging, unrelated e-mail, internet surfing, and focus on any outside endeavors be understood as objectionable. It is a distraction to others and disrespectful to the instructor. If I see it happening, I will not interrupt class anymore than to dismiss the offending student, and no attendance will be credited to that student for the day's class. Cellular phones are also not tolerated. Turn the ringers off and put them away.

Attendance: is mandatory. Absences due to reasons of poor health or personal emergencies must be cleared in advance with the instructor whenever possible. My phone # is listed at the top of the first page, please do not hesitate to use it.

More than one unexcused absence will cost the offending student an entire letter grade. Three or more absences will earn the student a non-passing grade.

Lateness: I consider students who are more than 10 minutes late for a class absent. While you will not be given attendance credit for a class that you are late for, you will be given normal in class credit and credit for projects handed in on time so come even if you are running late. Just don't disrupt the class when you arrive.

Project Requirements: All projects must be original works. Any cases of **plagiarism** will be taken to the dean and result in dismissal. If you have any questions regarding your work on this issue, it is extremely important you ask me in advance of handing the work in. If I find evidence of plagiarism, it will be too late. This applies to all your work at Parsons. At the end of term, you will be expected to hand in your entire term's work with all relatable files intact on CD-Rom.

In Class expectations: This class will involve a great deal of discussion. A given student's input will be noted by the instructor and contribute to his/her overall final grade.

Reaction Papers: This course has a number of short readings, which each student will be expected to do prior to the class they are assigned for. In addition to the reading a short reaction paper of one to two pages (typed and double space) is expected on each reading. The primary purpose of these is to assist students in gathering their thoughts for in-class discussion.

Lest you have not encountered one, a reaction paper is as follows:

A reaction paper is a document wherein the student analyzes how a particular reading applies to a course's discussion, and their individual projects and explorations. It is not to be a brief review or overview, but an opportunity to raise points for later discussion in a concise and eloquent format. As previously stated these should be typed and double-spaced documents. As should be quite obvious, spelling and grammar count. **If you don't proofread, you don't get credit.**

Criteria for evaluation

Students in the course will receive feedback on the following areas:

- 1. Communication:** How well is the student able to express their ideas, both verbally and in written form?
- 2. Critical Thinking:** To what degree has the student demonstrated and developed critical thinking skills over the course of the semester? Is critical thinking evident in the visual work, in critiques and presentations, and in written assignments?

3. Design Process: What are the strengths and weaknesses of the student's design process? Is the student able to evaluate the work at different points in the process and to identify areas in their work for future development?

4. Contextualization and Connection: To what degree has the student been able to connect the themes and core concepts of the course to their work? Is this clearly demonstrated in their class participation, project presentation, and written work?

5. Integration and Appropriate Use of Technology: Is the student making good choices about the form and type of technology they are using to express their design concepts? Is the student able to integrate technology into the conceptualization, presentation and execution of their projects?

Grade Scale Descriptions

A = Work of exceptional quality.

A- = Work of high quality.

B+ = Work of high quality, higher than average abilities.

B = Very good work that satisfies goals of course.

B- = Good work.

C+ = Average work, understanding of course material.

C = Adequate work; passable

C- = Passing work but below good academic standing.

D = Below average work; does not fully understand the assignments.

F = Failure, no credit

How grading is calculated:

Attendance: %15

Project One: %15

Project Two: %15

Final Project: %20

Final Digital Deliverable %5

In Class Participation: %15

Reaction papers: %15

The Term:

Week One ~ September 6 ~ “Introductions All Around”

Class introduction

In Class: meet the group, introduction to syllabus, expectations explained, and an overview of the term’s projects. If there is time, we’ll have an introduction to field observation

Week Two ~ September 13 ~ “Project One Begun”

In Class: Discuss reading, explore concept of usability as it pertains to the class’s varied interests. Introduction to group project one - ‘Paper Me Usable.’

Readings due:

- The interview with Donald Norman From Brenda Laurel’s *The Art of Human Computer Interface Design*

Week Three ~ September 20 ~ “Taming Paper Tigers”

In Class: Discussion of readings. Paper Prototype testing for ‘Paper Me Usable’ project.

Readings due:

- Chapter nine of Steve Krug’s *Don’t Make Me Think*
- Chapter one of Carolyn Snyder’s *Paper Prototyping*

For Class: Groups must prepare paper prototyping elements for in class testing session and bring digital cameras for documenting experience.

Week Four ~ September 27 ~ “Presentation One”

In Class: Presentation of ‘Paper Me Usable’ test results and analysis. Discussion of readings. Overview of ‘Seek & Destroy’ project. Assemble in groups of 2 or 3 and begin conducting field observations to identify project’s usability issue.

Reading due:

- Chapter eleven of Steve Krug’s *Don’t Make Me Think*

For Class: Prepare group presentation of ‘Paper Me Usable’ project designs, testing documentation, and analysis of results.

Week Five ~ October 4 ~ “A New Mission”

In Class: Discussion of readings, initial group presentations

Readings due:

- Jakob Nielsen’s article *From User to Character*

Also due: Teams present their usability issue for ‘Seek & Destroy’ to the class with photo or video documentation. In addition a 1-2 page paper from each group will be due with an overview of the design problem, proposed testing methodology, expectations & goals.

Week Six ~ October 11 ~ “Testing, Testing, 1,2,3...”

In Class: Discussion of readings, consideration of possible testing approaches, informal project updates.

Reading due:

- Chapters 5 & 7 of Joseph Dumas’ & Janice Redish’s *A Practical Guide to Usability Testing*

Week Seven ~ October 18 ~ “Testing, testing 4,5,6....”

In Class: Discussion of readings

Reading due:

- Chapters 8 & 9 of Joseph Dumas’ & Janice Redish’s *A Practical Guide to Usability Testing*

Week Eight ~ October 25 ~ “We came, we tested, we conquered!”

In Class: Presentation of ‘Seek & Destroy’ projects, introduction of Final project criteria.

Reading due:

- Chapter 10 of Joseph Dumas’ & Janice Redish’s *A Practical Guide to Usability Testing*

Also due: Group project overview paper

Week Nine ~ November 1 ~ “In The Future, There Is No User Error!”

In Class: Presentation of final project proposals. Test teams will be organized, and testing techniques discussed. Discussion of readings.

Reading due:

- Chapter 2 of Jeffrey Rubin’s *Handbook of Usability Testing*

Also due: Final project proposal paper (1-2 pages)

Week Ten ~ November 8 ~ “Inventing a Better Mousetrap”

In Class: Discussion of readings. Discussion regarding the testing for final project.

Reading due:

- Chapter 5 selection from Nielsen’s *Usability Engineering*

Also due: Outline of testing schedules with updated proposal statement including proposal of what testing techniques will be used (2-4 pages).

Week Eleven ~ November 15 ~ “Hey, Who’s Trapping Who?”

In Class: Discussion of readings. Discussion regarding the further development of final project’s testing.

Reading due:

- Chapter one of Donald Norman’s *Things That Make Us Smart*

THANKSGIVING BREAK ~ November 22

Week Twelve ~ November 29 ~ “Better testing through turkey”

In Class: Final project updates. Individual project meetings

Week Thirteen ~ December 6 ~ “Back to the Grind”

In Class: Final project updates. Individual project meetings

Week Fourteen ~ December 13 ~ “Pressure’s On”

In Class: Final project updates. With presentation of testing strategies and problems encountered.

Week Fifteen ~ December 20 ~ “Frank’s Final Curtain”

Final Critique

Also due: **Final Digital Deliverable:** All the term’s work including presentations, reaction papers, project papers, and any edited digital documentation available to handed in on DVD-Rom or CD-Rom. These should have a clearly named and well-organized file hierarchy.

The Projects:

Project 1 - 'Paper Me Usable' (weeks 1 - 4)- This is a group based design and prototype exercise. The class will assemble into groups of three or four (four teams total) and design user interfaces for either a portable solar-powered microwave oven, or a portable subway car location device. These interfaces will be tested with paper prototypes on other students in the class and so designs should be developed for this user group.

Project 1 deliverable (due week 4):

- I. Group presentation
 - a. Project overview
 - b. Testing overview
 - i. Test goals (what you hoped to learn)
 - ii. Expectations (what you expected to find)
 - iii. Documentation of testing (video or stills)
 - iv. Results
 - c. Analysis of results
 - d. Conclusion(s)

Project 2 - 'Seek & Destroy' (weeks 5 - 8)- This is a group based usability issue identification exercise coupled with a testing exercise. Students will assemble into groups of two or three and conduct field observations to seek out and document usability issues. Choosing one of these issues, the group will then identify a testing audience, and design a usability test to both confirm the initial usability issues identified, and to develop design corrections for overcoming these flaws. These tests will be conducted, documented, and the results and redesign proposals presented to the class.

Project 2 deliverables:

- I. Initial group project proposal paper (1-2 pages due week 5) featuring:
 - a. Overview of the design problem
 - b. Proposed testing methodology
 - c. Expectations & Goals
2. Group presentations
 - a. Initial Presentation (due week 5)
 - i. Project identification
 - I. With digital documentation of issues
 - ii. Testing proposal
 - b. Final Presentation (due week 8)
 - i. Project overview
 - ii. Testing overview
 1. Test goals (what you hoped to learn)
 2. Expectations (what you expected to find)
 3. Documentation of testing (video or stills)
 4. Results
 - iii. Analysis of results

- iv. Conclusion(s)
- 3. Group Project Overview document (due week 8) containing:
 - a. Project overview
 - i. Project identification
 - ii. Issues or concerns
 - iii. Test goals (what you hoped to learn)
 - iv. Expectations (what you expected to find)
 - b. Testing approach overview
 - c. Testing overview
 - i. Documentation of testing
 - ii. Results
 - d. Analysis of results
 - e. Conclusion(s)

Final Project (week 8 – 15) will involve incorporating student’s newly gained knowledge of usability into an original design project. This may be a project from another class, such as thesis, the further development of a concept from a previous assignment, or one developed solely for this assignment. This may be an individual or group assignment (expectations will be commensurate), but Individual students will cluster together into test teams of 2 to 4 students to assist in testing one another’s projects. Because of this team testing approach, it is important that scheduling be drawn up early on in the process and adhered to. Each student should contribute equally to other projects as a test participant, observer, or tester. Part of this project’s grade will be gained from peer feedback (teammates will grade each other’s performance).

The final project’s deliverables:

- I. Project Overview document (due week 15) containing:
 - a. Project overview
 - i. Elevator statement
 - ii. Issues or concerns
 - iii. Test goals (what you hoped to learn)
 - iv. Expectations (what you expected to find)
 - b. Testing approach overview
 - c. Testing overview
 - i. Documentation of testing
 - ii. Results
 - d. Analysis of results
 - e. Conclusion(s)
- 2. Final presentation (due week 15) containing:
 - a. An overview of the points mentioned in your overview document
 - b. Digital documentation of testing
 - i. Preferably this would be delivered as a well edited video segment but still images will be acceptable.