Running head: OLD PAWS USABILITY TEST

Usability Test Document of Frostburg State University's Old PAWS Interface

Michael B. Flinn, D.Sc.

Introduction

Frostburg State University is one of 11 universities in the University of Maryland system. Frostburg State University is a small college located in the Appalachian Mountains in western Maryland. At the beginning of the fall semester 2006, there were 4,321 undergraduate students, 720 graduate students, and 351 faculty members. The current tuition is $6,392 for a Maryland resident and $15,442 for a nonresident. On August 1, 2006, Dr. Jonathan C. Gibralter became president of Frostburg State University.

Frostburg State University uses a computerized system, named PAWS, for its student management, faculty management, and staff management needs. The PAWS management system is built on PeopleSoft software and has been in operation for approximately three years. It was assumed that the user already knew how to navigate to the "Learning Management" page within PAWS. The "Learning Management" page is similar to a homepage and is used by advisors to advise their students. Many users of this interface have found themselves losing a lot of time looking for information in the wrong place due to the lack of descriptive links. Therefore, they lose time as they drill down through the pages looking for information that will not be there. Many users have expressed their frustration when using the PAWS interface. Due to the level of frustration expressed by many users of the system, a prototype was designed. The prototype was designed using the collected comments about the original interface. This paper will discuss usability testing and design of one task requested of the participant in the usability study. Specifically, the user was asked to find the time(s) and section number(s) of the offerings for Principles of Finance for the fall 2007.

Business Case

The Chief Information Officer (CIO) of Frostburg State University was consulted before the start of the original site visits. The CIO was informed that the study would not include any sensitive areas of the system like student information or financial information. The CIO stated that because Frostburg State University was a public facility, and that PeopleSoft was not a closed system of the university's, there would not be a reason to be concerned with the study. The CIO stated that the university had no objections to the study and that they would be interested in seeing the results of the PAWS interface study.

The Site Visit

The functions and management capability of PAWS is vast. It ranges from managing the financial needs of the facility to enrolling in classes for the students. Terms such as "inefficient, poor user interface, hard to use, confusing, and inappropriate use of links" were often used when describing the PAWS interface. Thus, it was determined that the focus of the site visit was to analyze the advising tools provided by the system for the advising of students. Due to the complexity of the PAWS system the participants were asked to perform one task with the PAWS interface. Specifically, the participants were asked to find the times and section number(s) for the Principles of Finance for the fall semester 2007. Refer to Appendix C for images of the PAWS interface.

The majority of the individuals that use PAWS considered themselves veteran users. They had a good understanding of how PAWS worked; further, they knew about the majority of the quirks with the interface. It was assumed that the users of PAWS knew how to complete the tasks asked of them.

Site Visit Objectives

The objectives of the site visit were:

- To collect and understand any frustrations experienced by the participant.
- Observe problems participants encountered when performing the requested task in the PAWS system.
- Understand the perceived usefulness of the retrieved content.
- Understand the mental model of the participant as it related to retrieving the requested content.

Participants

Five individuals were solicited from the Department of Computer Science to participate in this short study. The PAWS system has been in use by the university for several years; thus, it was expected that the majority of the participants had a good understanding of the system and its interface. It was also expected that all advisors on campus had a basic understanding of how to use a web browser, how to navigate the PAWS home page, and how to log into the system. All of the participants in the site visits were selected from the Department of Computer Science. This made the site visits convenient for both the observer and the participants. In order for the participants to complete the task comfortably, all site visits were conducted in a location of their choosing. All participants chose their office as the location for the site visit. All of the participants were curious about what they were going to do. Upon finding out, all participants made similar comments about how unpleasant the PAWS interface was to use. They were excited that someone was finally doing a study on the interface. The site visits were conducted between March 1 and March 6, 2007 with the participants being

contacted the day before or the day of the site visit. It was explained to the participants that the study would require between 10 and 15 minutes of their time. A total of six participants were interviewed. However, one participant opted out of the audio recording; thus, only five of the participants' data were analyzed. It was determined that the observer could not collect all of the necessary observations without the audio from that site visit.

Data Collection

A script was developed to assist in the collection of data during the site visit. The script contained a brief description of the study along with appropriate questions to be answered by the participant. In addition, the user was asked to describe what they were doing as they were doing it, also know as the think aloud protocol. Below is the script that was used during the interviewing process.

Name:_____ Location:_____
Date:_____ Time:_____
Temp: Cool/Warm/Hot Lighting: On/Off Windowed/Non-Windowed

Script:
I would like to ask for your participation in a short study of the PAWS interface. The study will take between 10 and 15 minutes.
Would you mind giving me 10-15 minutes of your time for this study?
If the user agrees:
I will be asking you a few questions first, and then I will be asking you to log into PAWS and perform a simple task. While you are performing the task, I will be observing your actions. I would also like to record our conversation, is this ok with you?
If YES
Turn on recorder
Otherwise, continue without turning on recorder
Otherwise:
Thank you, have a great day!
Questionnaire:
What do you consider your level of experience with a computer?
(Novice, Intermediate, Expert)
(Questioning will stop if the user indicates that they can't operate a computer.)
What do you consider your level of experience with a web browser?
(Novice, Intermediate, Expert)
What do you consider your level of experience with the FSU intranet?
(Novice, Intermediate, Expert)
What do you consider your level of experience with the PAWS interface?
(Novice, Intermediate, Expert)

Do you have PAWS bookmarked in your web browser of choice?
(Yes/No)
If answer == NO
Why don't you have it bookmarked?
Otherwise, continue
TASK:
We are going on to the task portion of the study. Could you please log on to your computer, open a browser, and log into the PAWS website?

WAIT for user to complete requested tasks.

Now I would like for you to perform the following simple task. While you are performing the task, I will be watching and listening. Should you have any comments about the interface as you are performing the task, please feel free to comment. I will not be able to assist you in performing the task. Are you ready?

Task: Find the times and section number(s) for Principles of Finance for the fall 2007.
Total Time: (Was filled in at a later time.)
Please explain to me your thought process as you went through the requested task.
Recode Observations
What did you find frustrating about the tasks that I have asked you to perform? *Be sure to record all of the participants' response.*
Recode Observations
If you could improve this task, how would you improve it?
Recode Observations
What are your general thoughts about the PAWS interface?
Recode Observations
Any other comments made by the user while performing the requested task?
Recode Observations

For an example of a completed script from the site visits, refer to Appendix A. In addition to the above script, an audio recoding device was used to capture as much information as possible during the site visit. After the interview, the audio recording was reviewed to fill in any gaps in data collection.

Site Visit Complications

During the site visit, three notable issues arose. One individual did not mention that they had a meeting to attend shortly after the site visit was scheduled. That individual may have let thoughts about being on time to their meeting interfere with the site study. Another individual became very frustrated when they were unable to complete the task and the observer had to help the individual get "unstuck." Finally, the original

script stated that the administrator would not help in the completion of the task. After the first two site visits were completed, it was realized that no assistance could lead to the participant failing to complete the task. To capture the thoughts of the participant at these frustrating moments, an adjustment was made in the script offering help to the participant only after the participant became frustrated with the task and showed signs of giving up.

Analysis of Site Visit

Three methods were used to analyze the data collected from the site visits. The analysis of the data was based on the methodologies discussed by Hackos and Redish (1998). A vignette scenario was used to summarize the enormous amount of data collected from the think aloud exercise performed by participants. A data matrix was used to organize the data collected from the questionnaire portion on the site visit. Finally a data flow diagram was used to illustrate the work flow of the task.

Vignette Scenario

Based on the written data and the audio recordings, vignette scenarios were quickly created after each site visit. The following is a summary of the vignette scenarios created after the interviews were conducted.

The participants were asked to use a think aloud protocol and say anything that may "come to mind" as they progressed through the task. Several of the participants became frustrated with many aspects of the PAWS interface (See Appendix C). For example, several participants questioned the term code for spring 2007. The participants also became frustrated with finding the abbreviation for a department and for a course. After a few moments, it was apparent that many participants were becoming frustrated. To keep the users interested in the study, the observer showed many if the participants

where to locate the term code for fall semester 2007, the department abbreviation, and the course number. Several participants were unable to proceed to the next screen because they were hitting enter instead of clicking the "search" button located on the screen. It took the participants several minutes to complete the task. When asked what frustrated them the most, the participants replied that there were many things. The icons used on the screen do not offer any help as to what they are. Not being able to locate the "special codes" such as the "term code" and the "course code" was especially frustrating. Finally, the participants stated that it is unintuitive to click a "search" button after filling in a field. It should be noted that sometimes the search button acts like a "submit" button. Next, the participants were asked for suggestions to improve the task. The participants suggested that there should be more descriptive buttons on the various pages. The participants also stated that the icons are not representative of what they do and do not have a help tag associated with them. If they were corrected, the site would instantly be more intuitive. The participants also suggested that a drop down menu for selecting the term code and course abbreviation may be helpful. Finally, the participants suggested working on a way to make the interface more intuitive. For example, if you can not hit enter, at least place the "submit" button closer to the task.

Data Matrix

A data matrix was created to help organize the data collected from the participant into information (Hackos and Redish, 1998). The data was collected from the participant during the questionnaire portion of the site visit. Table 1 shows the data collected from the short questionnaire asked at the beginning of the observation. However, the data has only been used to evaluate the speed at which the participants performed the requested

task. Perhaps the task time could be compared to the same data collected after the interface has been revised. A further use for the data was realized after the usability test was completed.

Table 1

User Data Matrix					
Basic Observations	**P1**	**P2**	**P3**	**P4**	**P5**
Date	3/1	3/1	3/3	3/5	3/6
Location	Office	Office	Home	Office	Office
Time	1.30p	11.20a	10.20p	4.00p	3.45p
Windows	Yes	Yes	Yes	Yes	Yes
Lights	On	Off	On	On	On
Questions					
Experience Computers	Intermediate	Expert	Expert	Intermediate	Expert
Experience Browser	Intermediate	Expert	Expert	Intermediate	Expert
Experience FSU Intranet	Intermediate	Intermediate	Intermediate	Intermediate	Expert
Experience PAWS	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Bookmarked PAWS	Yes	No	Yes	Yes	Yes
Calculated Observations					
Task Time(Seconds)	285	221	121	195	380
Help?	Yes	Yes	Yes	Yes	Yes

Data Flow Diagram

The last tool used to analyze the data collected from the site visits was a data flow diagram (DFD). The DFD was created to help understand the flow of the task and to better identify common issues from all participants. For example, in the DFD shown in figure 1, all participants have difficulty identifying the "term" decision and the "subject" decision. The DFD shows the options that the participant attempted to try to find the code. It clearly illustrates the additional time required if a code for "term" or "subject" is not known. At each decision on the DFD, the interface offers a solution to the decision at the cost of additional steps and time. All of the participants noted in their suggestions that a drop down box listing "codes" would be beneficial at these decision points.

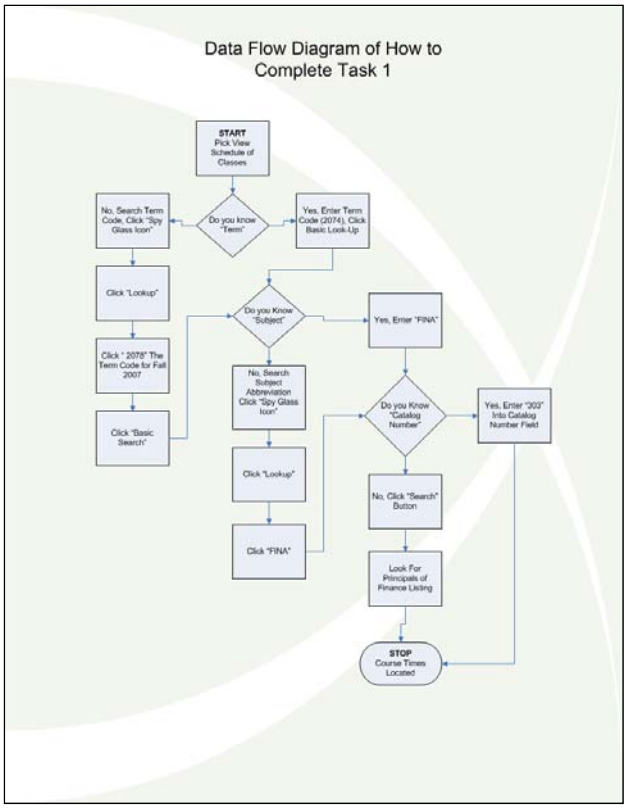


Figure 1

Site Visit Analysis

The PAWS interface, with regard to locating the Principles of Finance for the fall 2007 semester, is unintuitive, bulky, and inefficient. All of the participants noted that they strongly disliked the interface. The fastest participant was able to complete the task in 121 seconds; and the slowest participant took 380 seconds. The site visit showed the average time to completion of the requested task was 240.4 seconds. As observed in the data matrix, all of the participants consider themselves to be, at minimum, an intermediate user of the PAWS interface. Because the PAWS interface was unintuitive, the majority of the suggestions revolved around making the interface more intuitive. Many suggestions were offered for creating more descriptive buttons and using drop down boxes at the major decision points. For clarification, the participants suggested allowing the user to use the enter key instead of clicking a button would make the site more intuitive.

Cognitive Factors

Donald Norman (2002) discusses seven principles that a designer should take into consideration when designing a task. Below is a brief analysis of the task completed in the study of the PAWS system as it relates to Norman's seven principles.

The first principle suggests that the design of the task "use both knowledge in the world and knowledge in the head" (Norman, 2002, p. 188). The task completed by the participants required a basic understanding of how to use a computer, how to use a web browser, how to use the Frostburg State University intranet, and how to use the PAWS interface. Because the PAWS interface requires a web browser to complete this task, this principle is inherent in the task as it relates to the participant. The task would not be used

by an individual that did not meet the minimum criteria of being able to use a web browser.

The second principle states that the structure of the task should be as simple as possible (Norman, 2002). As presented in the DFD in figure 1, the designer of this task did not keep this task simple. The designer cloaked a simple task with excessive decisions to be made by the participant, yet did not offer assistance for completing the task. This forced the participant to perform extra searches in order to continue the process, or even to look for the necessary information in a catalog. The modified version of this task will offer a mechanism to help the participant make their decisions without the need for any extra searches.

Norman's third principle suggests that the designer should "make things visible" (2002, p. 188). The original design of this task limits the participants' ability to make informed decisions due to lack of informative help menus, lack of directions, and vague button labels. The revised task will include informative help menus when the participant hovers over buttons and links. It will also include more informative labels for buttons.

The fourth principle instructs the designer to "get the mappings right" (Norman, 2002, p. 188). For this task, the majority of the mappings for the PAWS interface are correct. The links are the proper colors and the buttons are labeled with the action that they perform. However, several participants expressed dismay that they must click on a button to perform an action. This suggests that there is a slight mapping issue with the site. If the participant chooses to hit the enter key instead of clicking a button, the data entered into the fields on the page is erased without explanation. Due to programming constraints, the revised task may still require the participant to click a button. However,

if the participant hits enter instead, it will retain the participant's information instead of discarding the information entered into the fields.

The PAWS interface "exploits the power of constraints" as suggested by Norman (2002, p. 189). The participant always knows where they are in the PAWS interface. Pages are clearly labeled, and the participant is not redirected outside of the web site upon clicking on a button or link. The revised web site will leave the current constraints in place.

The principle most violated on the site is proper error detection and correction (Norman, 2002, p. 189). As previously mentioned, should the participant make the mistake of using the enter key instead of clicking a button, the task does not advance and the participant must re-enter their information. An investigation will be performed to see if the site will tolerate the participant using the enter key in addition to the clicking of the buttons to progress to the next screen. Errors could be reduced with clear labeling of buttons, and explanation of the functionality of search features in the site. The error messages presented to the participant after a mistake are cryptic and offer little help as to how to correct the error. The revised site will tolerate mistakes by retaining data entered into fields. All error messages will offer a clear solution to the problem. Buttons will have clear labels to indicate their functionality.

Norman's (2002) final suggestion is to make sure that the device, in this case a web site, is using documented standards. With the exception of the participant not being able to use the enter key, the site uses web development standards. However, the site may not comply with newer standards with regards to accessibility. Accessibility laws and standards are outside the scope of this study.

The Prototype

It is clear that a designer did not create this task, nor did a designer have any part in designing the PAWS interface. The redesign of the interface took into consideration all of Norman's principles for good design as discussed above. Armed with these revisions, the PAWS prototype interface, see Appendix D, conforms to design criteria that enable both experienced and inexperienced participants to navigate the task quickly, efficiently, and intuitively. In addition to the images located in Appendix D, a nonfunctional prototype can also be found at: http://www.mflinn.net/paws. Incorporating the users request into the prototype have reduced the level of frustration experience by the users when using the PAWS interface. Based on the participant's input, the first thing that was created was a revised data flow diagram to help determine proper work flow (figure 2).

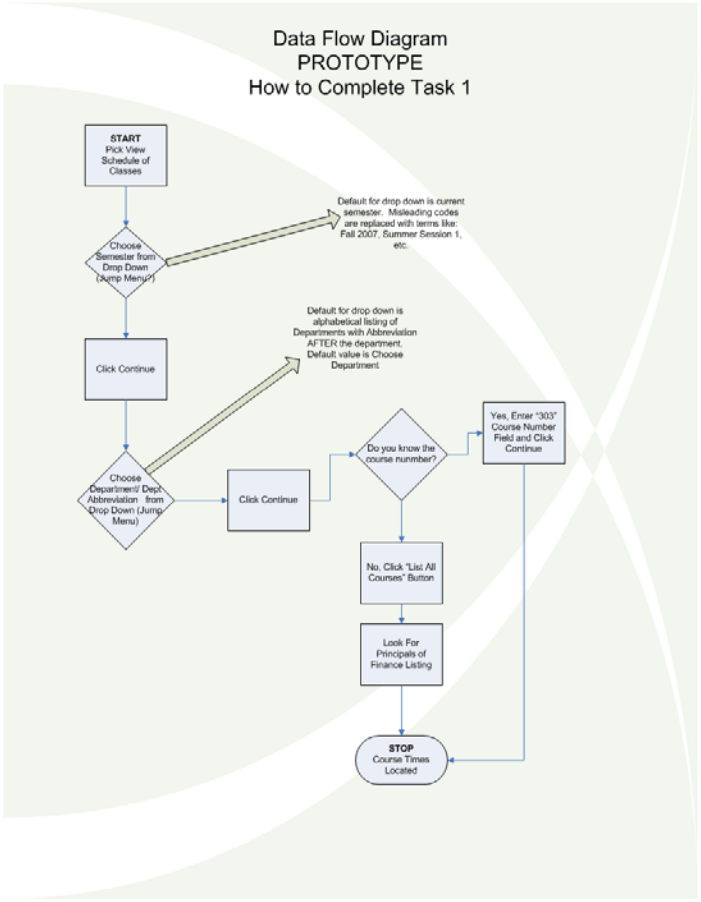


Figure 2

The Usability Test

Five individuals were solicited from the Department of Computer Science to participate in the usability test. The PAWS system has been in use by the university for several years; thus, it was expected that the majority of the participants had a good understanding of the system and its interface. All of the participants in the usability test were selected from the Department of Computer Science. This made the usability test convenient for both the observer and the participants. In order for the participants to complete the task comfortably, all site visits were conducted in a location of their choosing. The same five individuals chosen for the site visit were asked to participate in the usability test. This expedited the process of the usability test as all of the participants

were aware of the PAWS interface study; thus, the study did not need to be fully explained to the participants again. The usability tests were conducted on April 13, 2007. The participants were informed that the usability test would require between 10 and 15 minutes of their time.

Data Collection

A script was developed to assist in the collection of data during the site visit. The script contained a brief description of the usability test along with appropriate questions to be answered by the participant. In addition, the user was asked to describe what they were doing as they were doing it, also known as the think aloud protocol. Below is the script that was used during the interviewing process.

Name: **Location:**
Date: **Time:**
Temp: Cool/Warm/Hot **Lighting: On/Off Windowed/Non-Windowed**
Script:

I would like to thank you for participating in my short study of the PAWS interface. This is a follow us to that study. This is the usability portion of my study. If you recall from before, I asked you a few questions about the PAWS interface in general, and then I asked you to perform a short task using the interface.

This time, I would like to ask for your feedback on the same task using a prototype of the PAWS interface. Although I will be showing you a nonfunctional prototype, it will still allow you to complete the task.

The study will take between 10 and 15 minutes.

Would you mind giving me 10-15 minutes of your time for this study?

If the user agrees:

I will be asking you a few questions first, and then I will be asking you to log in to the PAWS prototype and perform a simple task. While you are performing the task, I will be observing your actions. I would also like to record our conversation, is this ok with you?

If YES

Turn on recorder

Otherwise, continue without turning on recorder

Otherwise:

Thank you, have a great day!

Questionnaire:

What do you consider your level of experience as it pertains to computer use?
(Novice, Intermediate, Expert)

(Questioning will stop if the user indicates that they can't operate a computer.)

What do you consider your level of experience as it pertains to web browser use?
(Novice, Intermediate, Expert)
What do you consider your level of experience with the FSU intranet?
(Novice, Intermediate, Expert)
What do you consider your level of experience with the PAWS interface?
(Novice, Intermediate, Expert)
Do you have PAWS bookmarked in your web browser of choice?
(Yes/No)
If answer == NO
Why don't you have it bookmarked?
Otherwise, continue
TASK:
We are to the task portion of the study. I am going to ask you to perform a task in the PAWS prototype. Could you please log on to your computer, open a browser, and go to http://www.mflinn.net/paws.

WAIT for user to complete requested tasks.

Now I would like for you to perform the following simple task. While you are performing the task, I will be watching and listening. Should you have any comments about the interface as you are performing the task, please feel free to comment. Are you ready?

Task: Find the times and section number(s) for Principles of Finance for the fall 2007.
Total Time:

Please explain to me your thought process as you went through the requested task.
Record Observations
What did you find frustrating about the tasks that I asked you to perform? *Be sure to record all of the participants' response.*
Record Observations
If you could improve this task, how would you improve it?
Record Observations
What are your thoughts about overhauling the PAWS interface to and include aliases as this prototype did?
Record Observations
Other comments made by the user while performing the requested task:
Record Observations

For an example of a script that was completed during the usability test, refer to Appendix B. In addition to the above script, an audio recoding device was used to capture as much information as possible during the site visit. After the interview, the audio recording was reviewed to fill in any gaps in data collection.

Site Visit Complications

During the usability test, one notable issue arose. One participant suggested that because the observer's office was closer, that the usability test be conducted there using the observer's computer. The participant was unaware that mouse response time and quickness of the mouse can vary depending on the user preferences. The participant was capable of completing the usability test; however, there was a heightened level of frustration due to the mouse "flying around the screen" as the user stated.

Analysis of the Usability Test

Two methods were used to analyze the data collected from the site visits. The analysis of the data was based on the methodologies discussed by Hackos and Redish (1998). A vignette scenario was used to summarize the data collected from the think aloud exercise performed by participants. A data matrix was used to organize the data collected from the questionnaire portion of the site visit.

Vignette Scenario

Based on the written data and the audio recordings, vignette scenarios were quickly created after each usability test. The following is a summary of the vignette scenarios created after the interviews were conducted.

The participants were asked to use a think aloud protocol and say anything that may "come to mind" as they progressed through the task. All of the participants were extremely happy with the prototype PAWS interface (See Appendix D). The participants consistently commented on how intuitive the prototype was, stating that there was not much to "think" about as they completed the requested task. Further, the users commented on how much faster they could locate information in the prototype interface.

Finally, the users commented on the removal of the cryptic codes for semester, department, and course. All of the participants stated that if the entire PAWS interface were designed in a similar fashion to the prototype, that they would be inclined to use the PAWS interface more often.

Usability Test Data Matrix

A data matrix was created to help organize the data into information that was collected from the users during the questionnaire portion of the site visit (Hackos and Redish, 1998). Table 2 shows the data collected from the short questionnaire asked at the beginning of the observation. The data has been used to evaluate the speed at which the participants performed the requested task. The data collected from the usability test will be used later in this paper for comparison between the site visit and the prototype usability test.

Table 2

Prototype Usability User Data Matrix					
Basic Observations	**P1**	**P2**	**P3**	**P4**	**P5**
Date	4/13	4/13	4/13	4/13	4/13
Location	My Office	Office	Home	Office	Office
Time	2.00p	1.30p	10.15p	4.15p	11.15a
Windows	Yes	Yes	Yes	Yes	Yes
Lights	On	Off	On	On	On
Questions					
Experience Computers	Intermediate	Expert	Expert	Intermediate	Expert
Experience Browser	Intermediate	Expert	Expert	Intermediate	Expert
Experience FSU Intranet	Novice	Intermediate	Intermediate	Intermediate	Intermediate
Experience PAWS	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Bookmarked PAWS	Yes	No	Yes	Yes	Yes
Calculated Observations					
Task Time(Seconds)	26	21	15	17	22
Help?	No	No	No	No	No

Usability Test Analysis

The prototype PAWS interface, with regard to locating the Principles of Finance for the fall 2007 semester, is intuitive, easy to use, and efficient. The fastest participant was able to complete the task in 15 seconds; and the slowest participant took 26 seconds. The participant that took 26 seconds had difficulty controlling the mouse due to a high sensitivity setting. With the exception of one participant, all of the participants consider themselves to be, at minimum, an intermediate user of the PAWS interface. It should be noted that two of the participants, P1 and P5, downgraded their level of experience with the FSU intranet. The reason for this is unknown as it was not noticed until the side by side analysis was performed on the site visit and the usability test (table 3).

Table 3

Side by Side Matrix Comparison										
Observations	**P1(O)**	**P1(P)**	**P2(O)**	**P2(P)**	**P3(O)**	**P3(P)**	**P4(O)**	**P4(P)**	**P5(O)**	**P5(P)**
Date	3/1	4/13	3/1	4/13	3/3	4/13	3/5	4/13	3/6	4/13
Location	Office	My Office	Office	Office	Home	Home	Office	Office	Office	Office
Time	1.30p	2.00p	11.20a	1.30p	10.20p	10.15p	4.00p	4.15p	3.45p	11.15a
Windows	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lights	On	On	Off	Off	On	On	On	On	On	On
Questions										
Experience Computers	Intermediate	Intermediate	Expert	Expert	Expert	Expert	Intermediate	Intermediate	Expert	Expert
Experience Browser	Intermediate	Intermediate	Expert	Expert	Expert	Expert	Intermediate	Intermediate	Expert	Expert
Experience FSU Intranet	Intermediate	Novice	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Expert	Intermediate
Experience PAWS	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Bookmarked PAWS	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Calculated Observations										
Task Time	285	26	221	21	121	15	195	17	380	22
Help?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

The average time for completion of the requested task using the prototype was 20.2 seconds. Because the prototype PAWS interface was intuitive and was designed using the participants site visit comment, there was little discussion about how to improve

the prototype further. Only one user made a suggestion for further improvement on the prototype. The participant suggested that the home button should be placed in a different spot then its current location.

Recommendations

Based on the results of the prototype PAWS interface usability test, it is recommended that the entire PAWS interface be redesigned to be similar to the prototype discussed in this report and found at http://www.mflinn.net/paws. This study has shown that the current PAWS interface is unintuitive, time consuming and uses cryptic codes. All of the participants stated that they dislike using the system due to these reasons, among many others. The prototype PAWS interface had a positive response from the participants. All of the users were accepting of the prototype and rejoiced in the modifications from the original. The drop down menus that were used to eliminate the cryptic codes was especially well received. Finally, on average, the users completed the requested task 220.2 seconds quicker using the prototype than the original PAWS interface.

It is my recommendation that the PAWS interface be redesigned using the prototype as a reference. This study has proven that if the PAWS interface were redesigned, users would be more inclined to use the system. If designed properly, the users of the PAWS system could find the information they are looking for more quickly and without the frustration levels observed during the site visit.

Appendix A

Participant Collection Sheets- Site Visit Sample

Name: P1 Location: His Office
Date: March 12, 2007 Time: 1.30 pm
Temp: Cool/Warm/Hot Lighting: On/Off Windowed/Non-Windowed

Script:
I would like to ask for your participation in a short study of the PAWS interface. The study will take between 10 and 15 minutes.

Would you mind giving me 10-15 minutes of your time for this study?

If the user agrees:

I will be asking you a few questions first, and then I will be asking you to log into PAWS and perform a simple task. While you are performing the task, I will be observing your actions. I would also like to record our conversation, is this ok with you?

If YES

Turn on recorder

Otherwise, continue without turning on recorder

Otherwise:

Thank you, have a great day!

Questionnaire:

What do you consider your level of experience with a computer?
(Novice, Intermediate, Expert)

(Questioning will stop if the user indicates that they can't operate a computer.)

What do you consider your level of experience with a web browser?
(Novice, Intermediate, Expert)

What do you consider your level of experience with the FSU intranet?
(Novice, Intermediate, Expert)

What do you consider your level of experience with the PAWS interface?
(Novice, Intermediate, Expert)

Do you have PAWS bookmarked in your web browser of choice?
(Yes/No)

If answer == NO

Why don't you have it bookmarked?

Otherwise, continue

TASK:
We are to the task portion of the study. I am going to ask you to perform a task in PAWS. Could you please log on to your computer, open a browser, and log into the PAWS website.

WAIT for user to complete requested tasks.

Now I would like for you to perform the following simple task. While you are performing the task, I will be watching and listening. Should you have any comments about the interface as you are performing the task, please feel free to comment. I will not be able to assist you in performing the task. Are you ready?

When ready, mark time start:3.05

Task: Find the times and section number(s) for Principles of Finance for the fall 2007.

When finished, mark time completed:7.42
Total Time: 5.40

I needed to prompt the user a little further to understand the question. I gave an example that an advisee enters the room and he/she needs to take their upper level business course, and they would like to take principals of finance.

I again had to reprompt the question....

Please explain to me your thought process as you went through the requested task.

Looked up information in the catalog
Use the enter key instead of the "submit" button"
Use of symbols instead of words... he is asking why the spy glass?
I had to help find the semester number and the course abbreviation.

What did you find frustrating about the tasks that I asked you to perform? *Be sure to record all of the participants' response.*

Finding the semester number is a frustrating, and well as finding the course number and department abbreviation. – Why can't you just type in "fall 2007"
Hit enter instead of the submit button. This would cause the forms to reset. The form to find the course was very confusing and perhaps too much information on the screen for the user.

If you could improve this task, how would you improve it?

The Look-up button is very confusing... what are you looking up. This should be more straight forward and explain what the user is looking up.
The searches should be more intuitive.
View schedule of classes is fine and self explanatory.
Perhaps put a drop down in, tell people what they are looking up... what is a basic look-up. After some time, it will list the things that he needs to know.

"List of term"
Change the button placement for submit and search. There should be a way to hit enter.
The information the is on the page should be more descriptive.

What are your general thoughts about the PAWS interface?

Other comments made by the user while performing the requested task:
College catalogue was used to locate the information before looked up on the PAWS system

Appendix B

Participant Collection Sheets - Usability Test Sample

Name: P1 Location: My Office
Date: 4/13/2007 Time: 2.00p
Temp: Cool/Warm/Hot Lighting: On/Off Windowed/Non-Windowed

Script:

I would like to thank you for participating in my short study of the PAWS interface. This is a follow us to that study. This is the usability portion of my study. If you recall from before, I asked you a few questions about the PAWS interface in general, and then I asked you to perform a short task using the interface.

This time, I would like to ask for your feedback on the same task using a prototype of the PAWS interface. Although I will be showing you a nonfunctional prototype, it will still allow you to complete the task.

The study will take between 10 and 15 minutes.

Would you mind giving me 10-15 minutes of your time for this study?

If the user agrees:

I will be asking you a few questions first, and then I will be asking you to log in to the PAWS prototype and perform a simple task. While you are performing the task, I will be observing your actions. I would also like to record our conversation, is this ok with you?

If YES

Turn on recorder

Otherwise, continue without turning on recorder

Otherwise:

Thank you, have a great day!

Questionnaire:

What do you consider your level of experience as it pertains to computer use?
(Novice, Intermediate, Expert)

(Questioning will stop if the user indicates that they can't operate a computer.)

What do you consider your level of experience as it pertains to web browser use?
(Novice, Intermediate, Expert)

What do you consider your level of experience with the FSU intranet?
(Novice, Intermediate, Expert)

What do you consider your level of experience with the PAWS interface?
(Novice, Intermediate, Expert)

Do you have PAWS bookmarked in your web browser of choice?
(Yes/No)

If answer == NO

Why don't you have it bookmarked?

Otherwise, continue

TASK:
We are to the task portion of the study. I am going to ask you to perform a task in the PAWS prototype. Could you please log on to your computer, open a browser, and go to http://www.mflinn.net/paws.

WAIT for user to complete requested tasks.

Now I would like for you to perform the following simple task. While you are performing the task, I will be watching and listening. Should you have any comments about the interface as you are performing the task, please feel free to comment. Are you ready?

Task: Find the times and section number(s) for Principles of Finance for the fall 2007.
Total Time: 26 Seconds

Please explain to me your thought process as you went through the requested task.

The user commented on how fast the mouse was moving. The user participated in the usability test in the administrator's office, on the administrator's computer. There user stated that there was not any "real" thought to complete the task and was very happy.

What did you find frustrating about the tasks that I asked you to perform? *Be sure to record all of the participants' response.*

The user again commented about the mouse, and that it moved too fast. The use did not find anything frustrating about the task the they were asked to perform

If you could improve this task, how would you improve it?

The user took a few moments to review the prototype after they had completed the task. They could not think of any improvements at this time, and stated that they would notify me if they thought of anything.

What are your thoughts about overhauling the PAWS interface to and include aliases as this prototype did?

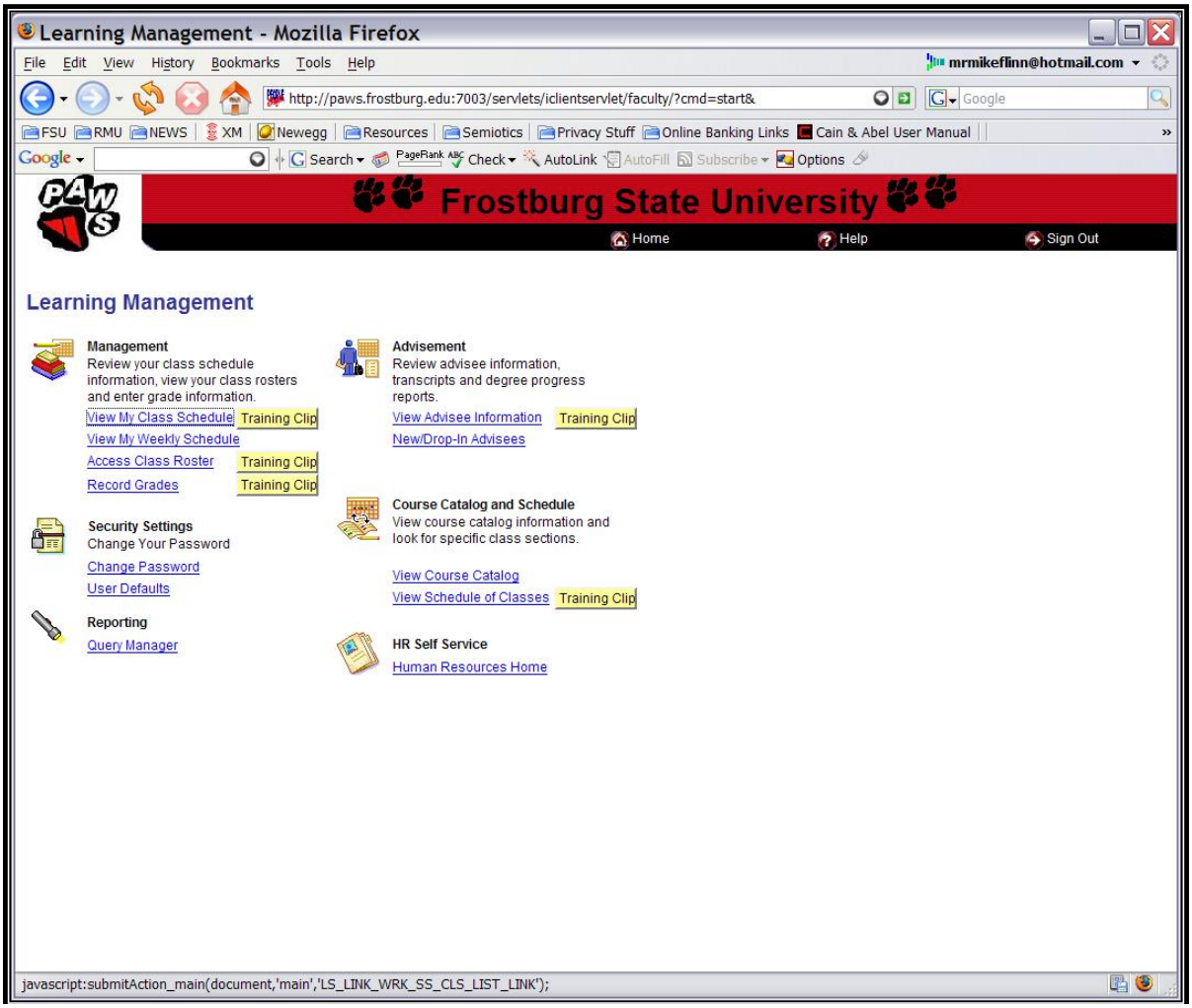
The user expressed great delight at the thought of the PAWS interface being overhauled to include the improvements in the prototype. The user stated that they would use the interface more often if the overall interface were more user-friendly and would use aliases, as the prototype does, instead of cryptic symbols, semester codes, and department codes.

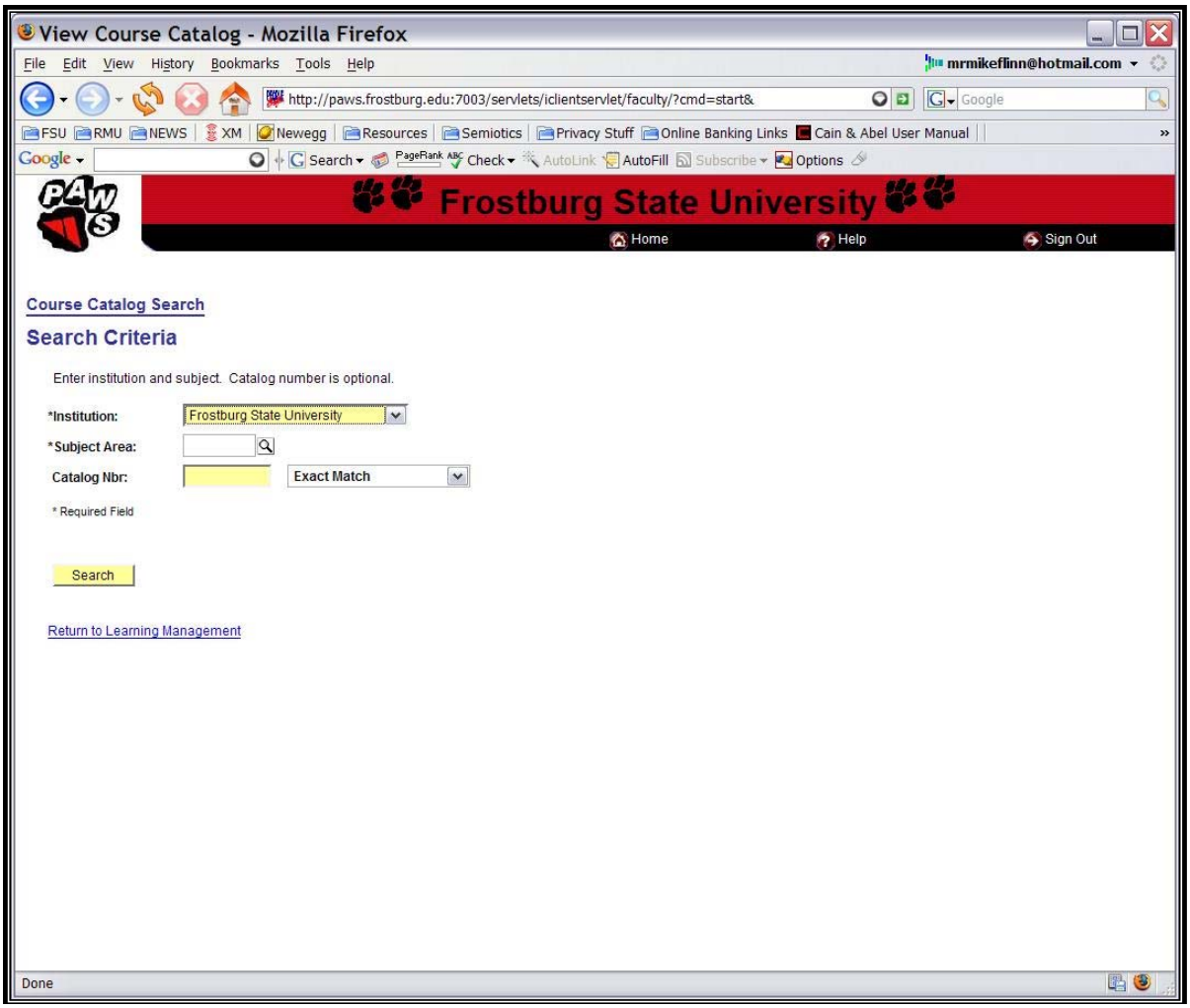
Other comments made by the user while performing the requested task:

Although the user was not familiar with my computer, and the mouse was quite fast for their taste, they were still capable of completing the task in a quick and easy manner. The user suggested that the prototype be shown to the "powers that be" and encourage them to retools PAWS and take the prototype revisions into consideration.

Appendix C

PAWS Interface

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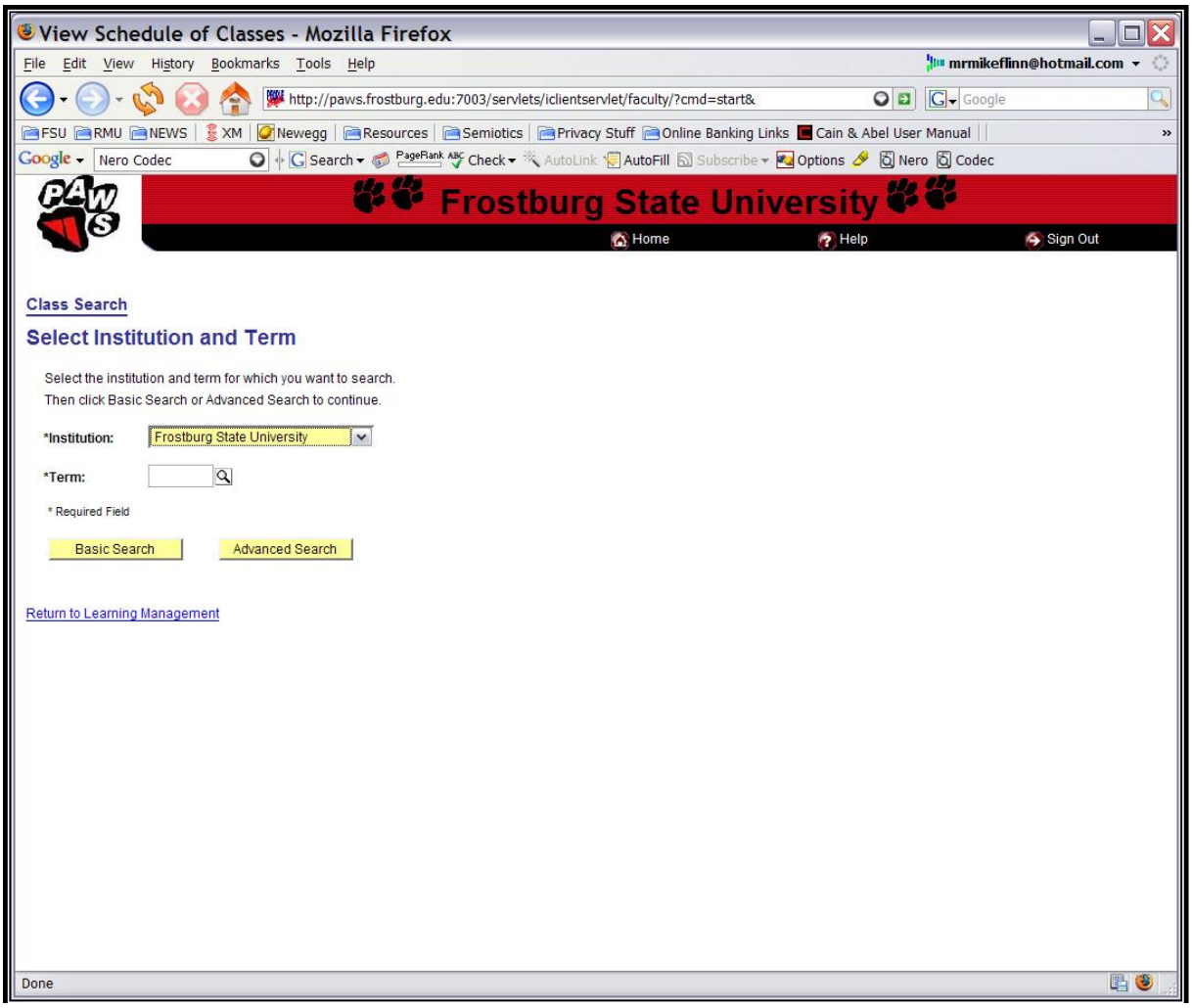
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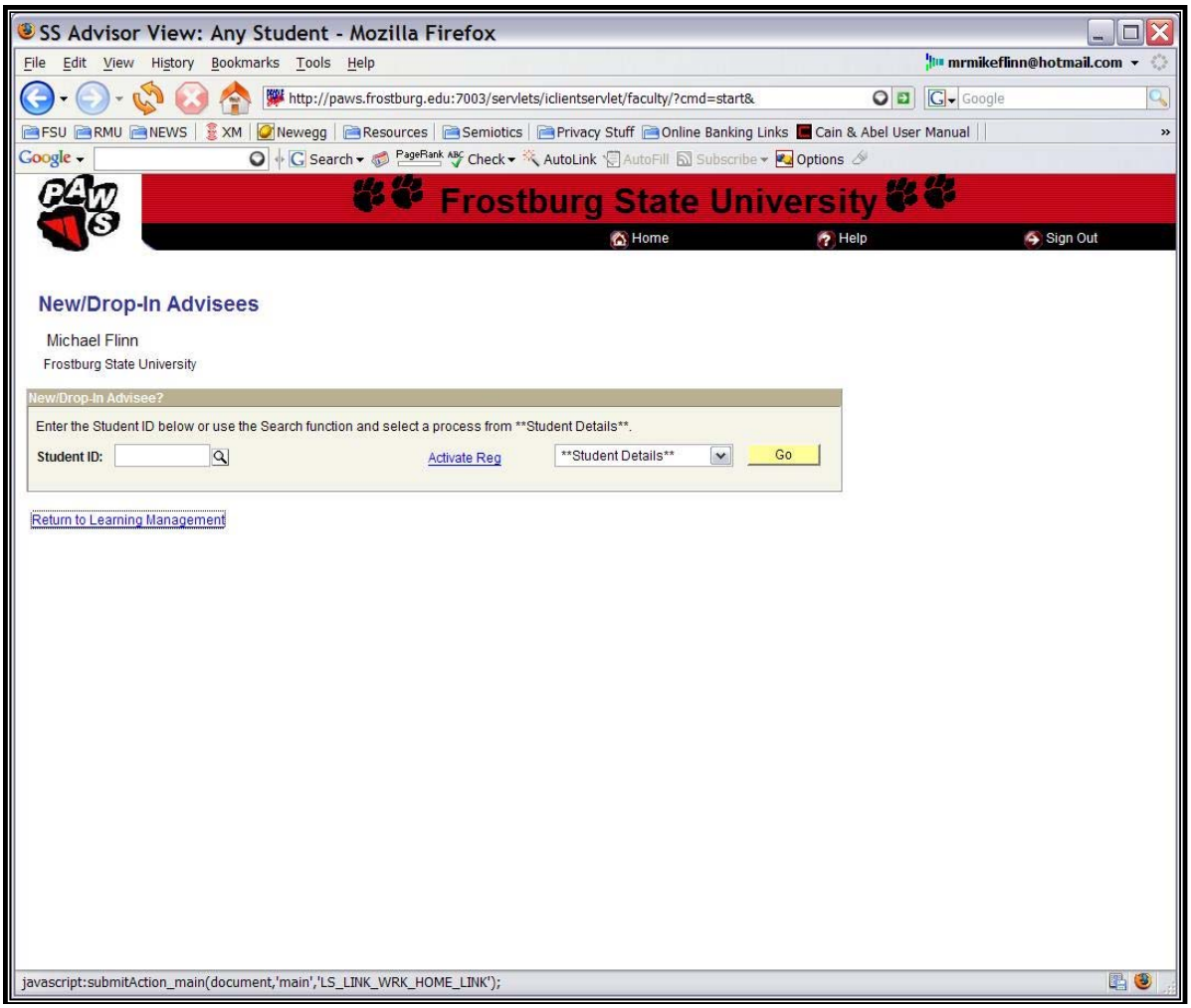
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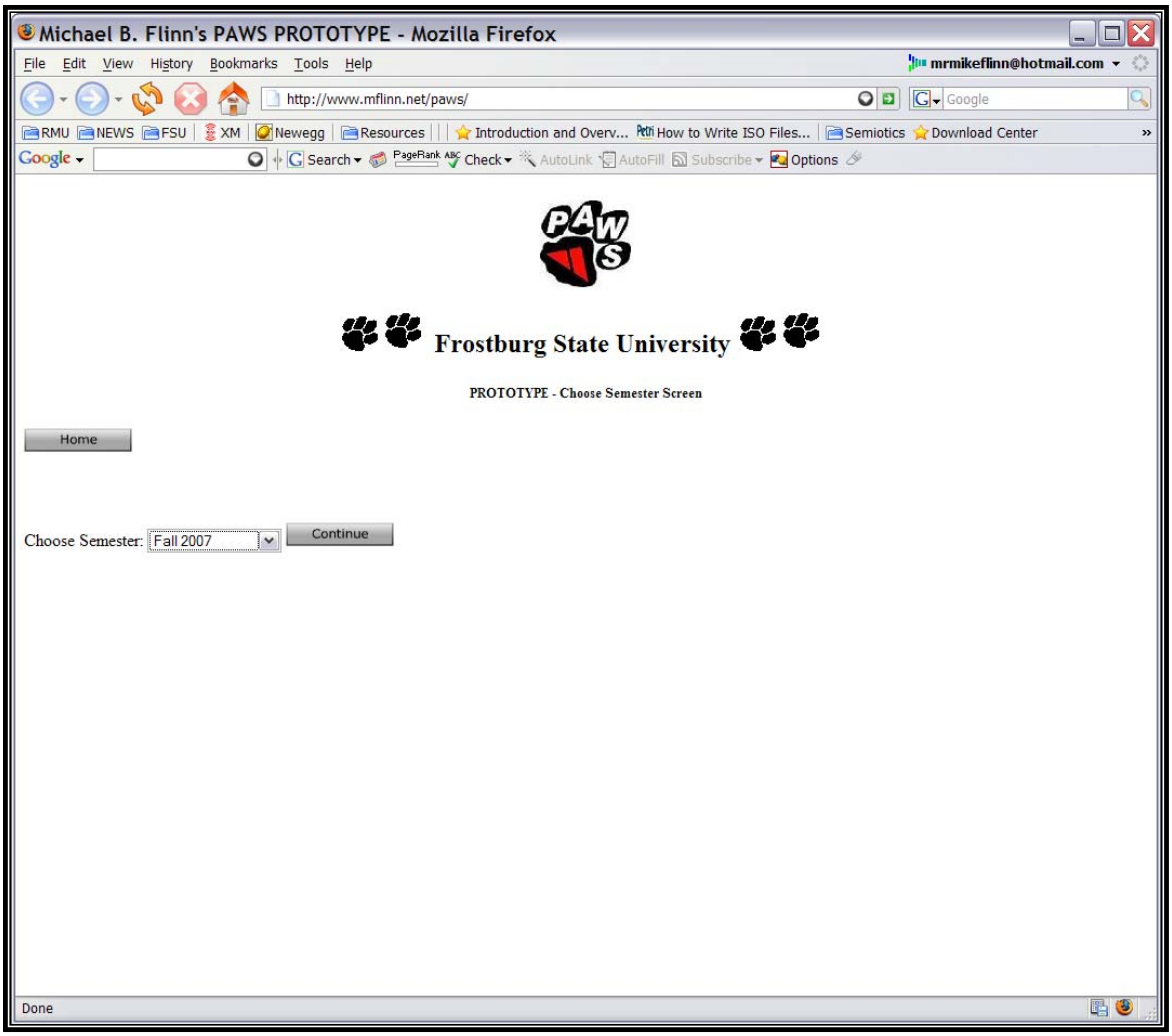
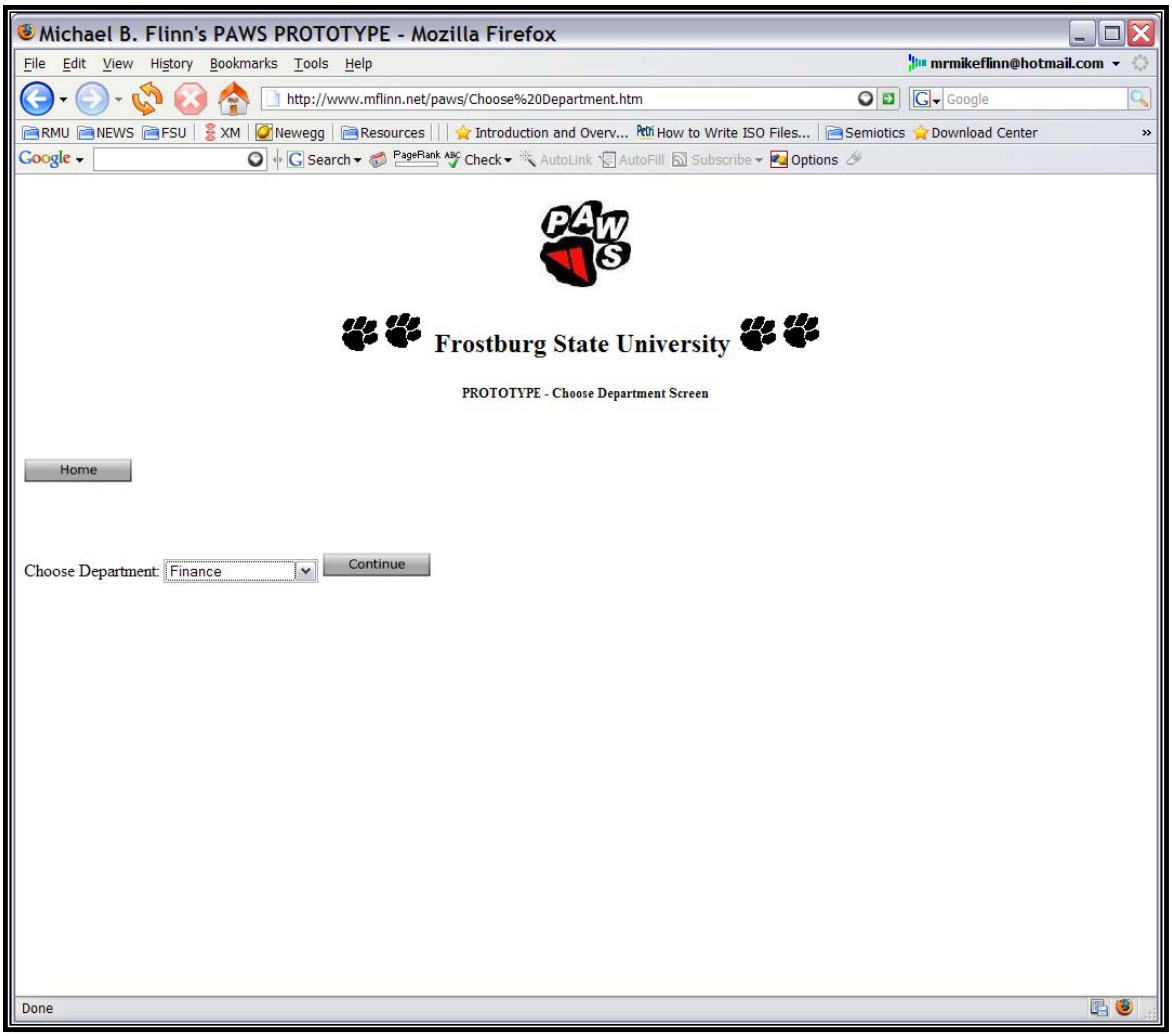
Appendix D

Prototype PAWS Interface

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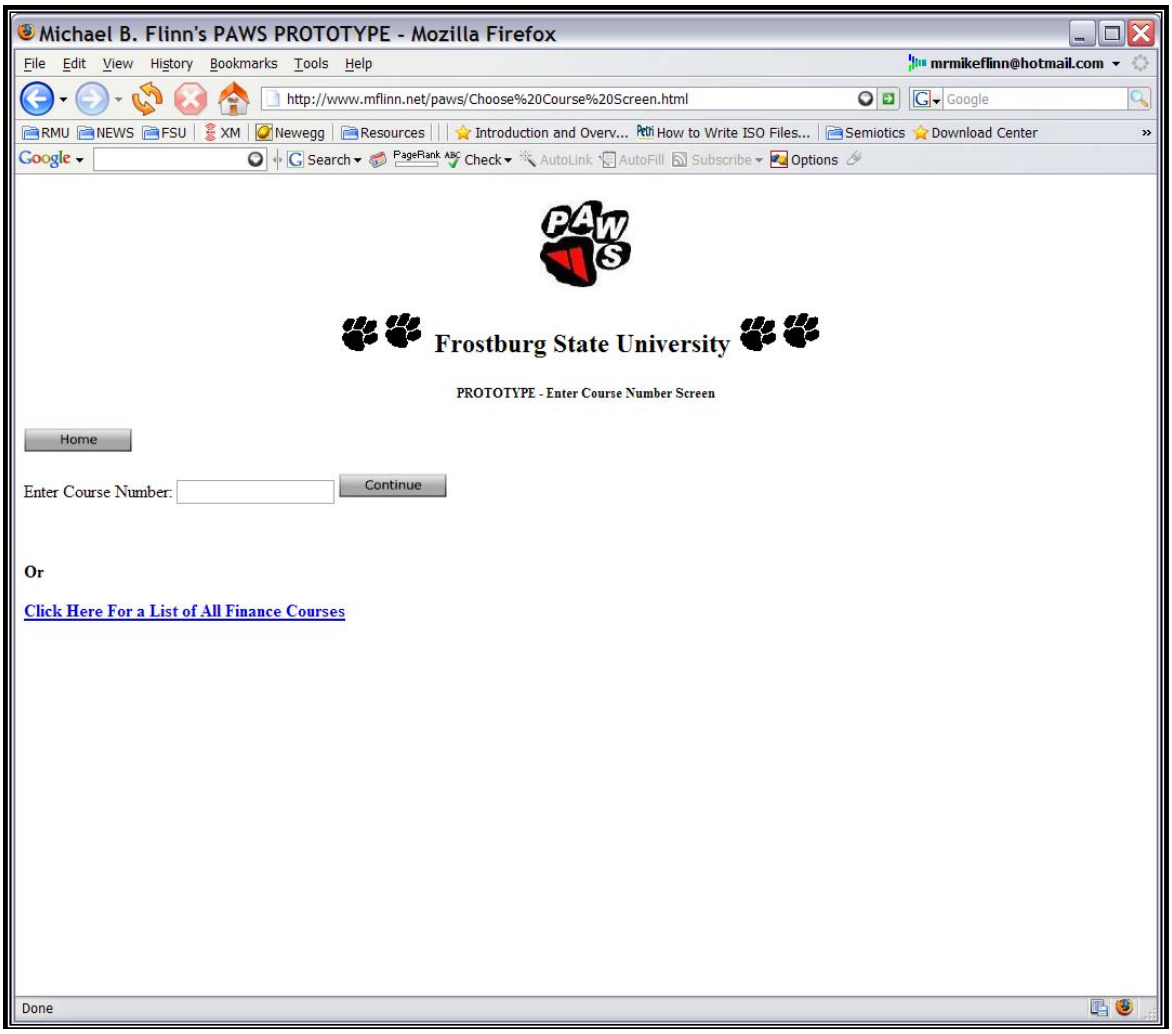
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Continue
Or
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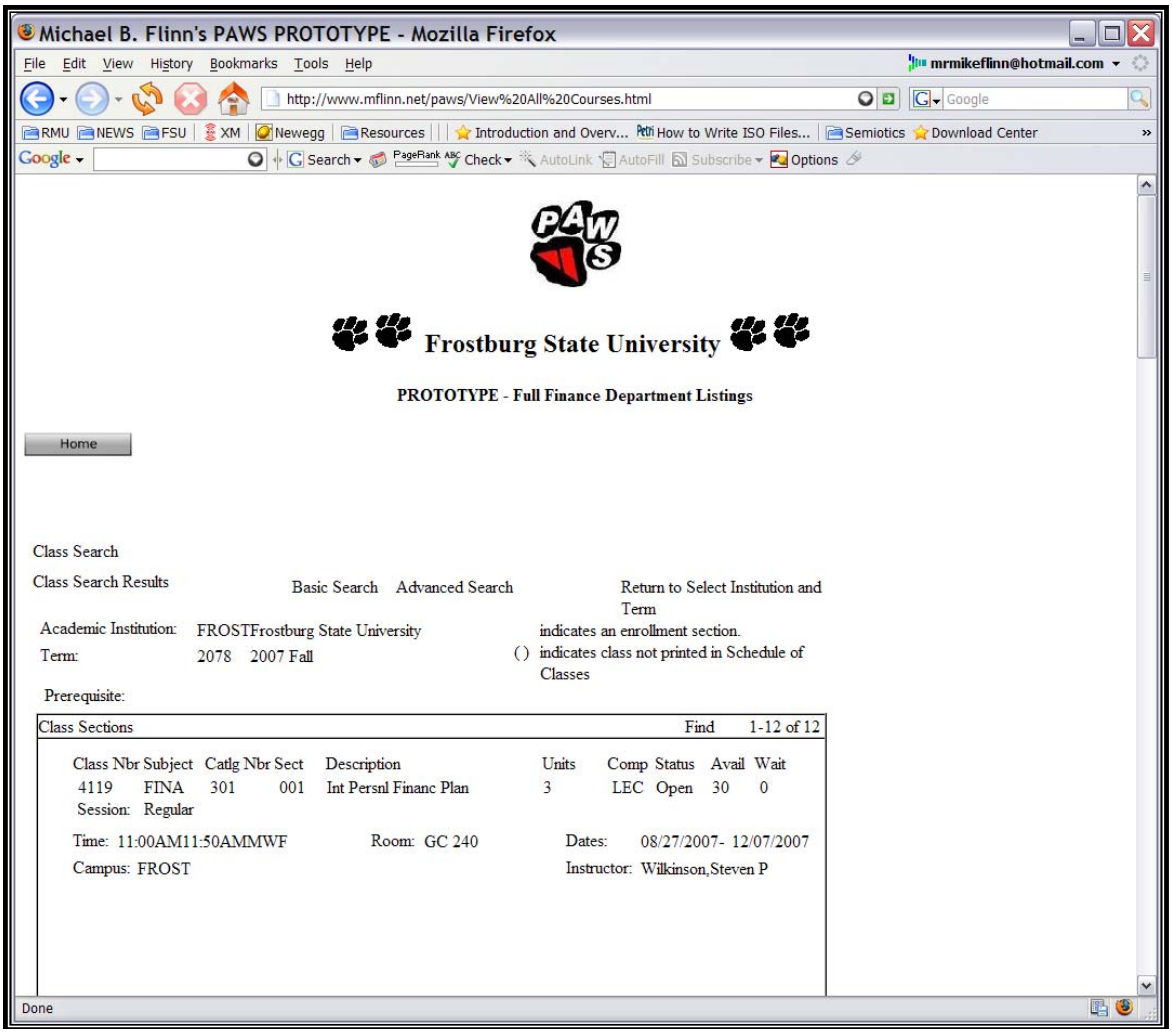
Done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Search Check AutoLink AutoFill Subscribe Options
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PROTOTYPE - Full Finance Department Listings
Home
Class Search
Class Search Results
Basic Search Advanced Search
Return to Select Institution and Term
Academic Institution: FROSTFrostburg State University
Term: 2078 2007 Fall
indicates an enrollment section.
( ) indicates class not printed in Schedule of Classes
Prerequisite:
Class Sections
Find 1-12 of 12
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Room: GC 240
Dates: 08/27/2007- 12/07/2007
Campus: FROST
Instructor: Wilkinson,Steven P
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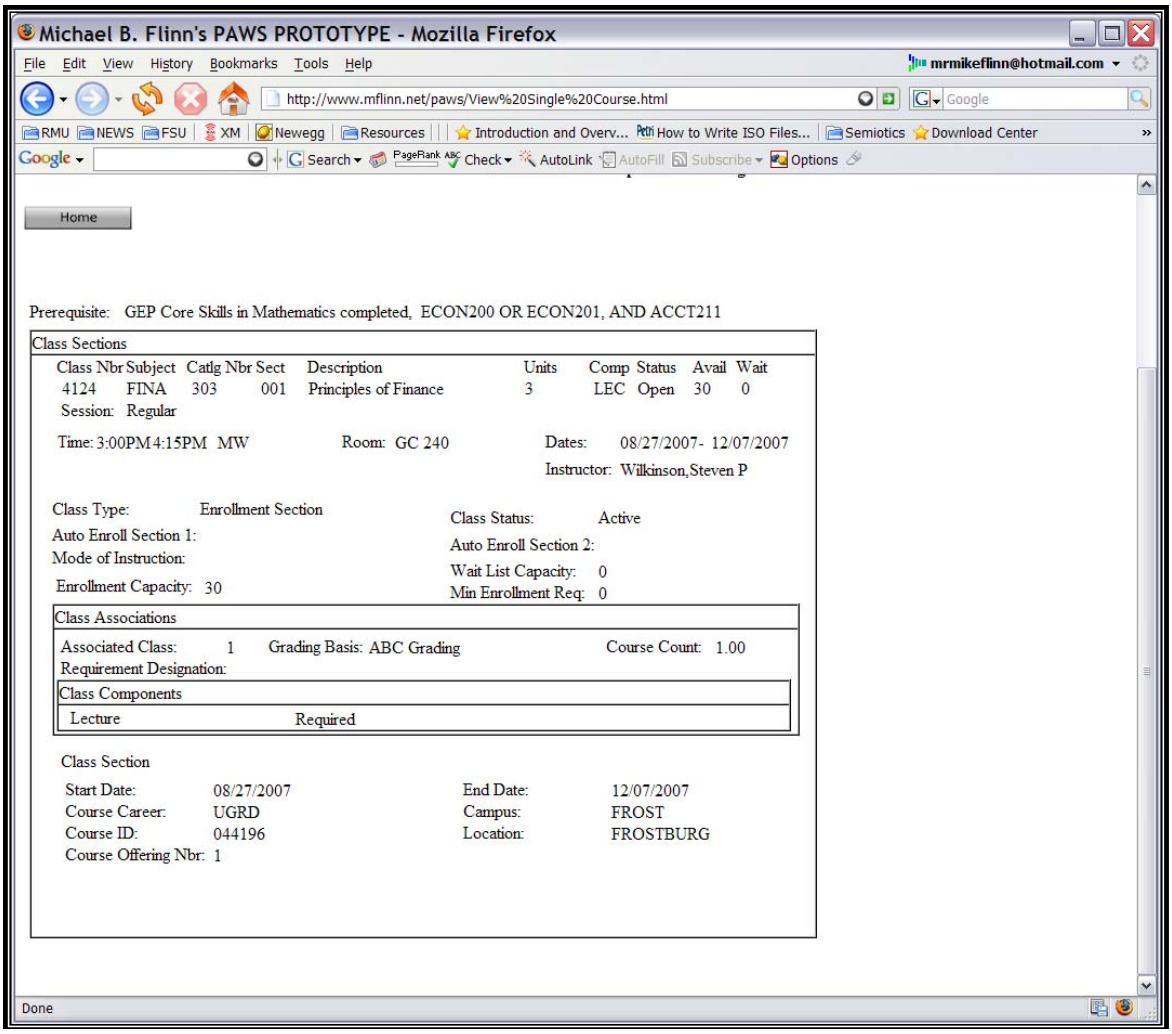
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RMU NEWS FSU XM Newegg Resources Introduction and Overv... How to Write ISO Files... Semiotics Download Center
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Prerequisite: GEP Core Skills in Mathematics completed, ECON200 OR ECON201, AND ACCT211
Class Sections
Class Nbr Subject Catlg Nbr Sect Description Units Comp Status Avail Wait
4124 FINA 303 001 Principles of Finance 3 LEC Open 30 0
Session: Regular
Time: 3:00PM 4:15PM MW Room: GC 240 Dates: 08/27/2007- 12/07/2007
Instructor: Wilkinson,Steven P
Class Type: Enrollment Section
Class Status: Active
Auto Enroll Section 1:
Auto Enroll Section 2:
Mode of Instruction:
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End Date: 12/07/2007
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References

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