

The uses of OneStart Classifieds and the expectations of users

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EXECUTIVE SUMMARY

Indiana University provides its students, faculty and staff with a web portal called OneStart. This web portal is intended to provide easy and personalized access to a variety of services provided by the university. The OneStart Classifieds is a service within the OneStart web portal that allows a user to review posted ads as well as post and delete their own ads. The functionality and effectiveness of the OneStart Classifieds were examined through the usability study detailed within this document.

The top three successes of the product were the following:

1. All participants were able to quickly locate the OneStart Classifieds.
2. All participants were able to immediately recognize the purpose of different features of the OneStart Classifieds (i.e. the search tool, the search categories, the post ad and delete ad functionality). All subjects were able to immediately use those features.
3. User errors recognized by the system resulted in helpful error messages that allowed the participant to immediately recover from his mistakes.

The top three problems were the following:

1. The search tool did not provide results if the participant did not enter a term that matched all or part of the string of characters listed in the title of the ad or description present within the ad.
2. The Classified Ads did not provide the users with an effective way to narrow their search. Participants found it difficult to navigate the large number of items posted under certain categories. Participants found it difficult to navigate the large number of items that resulted from a search using the search tool.
3. When a user selects a category to search and then selects “Post an Ad”, the category of the unpublished ad is not automatically filled in.

Based on the usability study the following recommendations were made:

1. The search tool should be redesigned so that does not require that a search term match, character by character, the title or description of the item. The search tool should be able to use multiple keywords in any order.
2. The search tool should be made more powerful and subcategories should be added.
3. It is recommended that when a user selects a search category and then selects “Post an Ad”, the previously selected category should be listed as the default category for the ad.

The usability study revealed that the OneStart Classifieds are well organized and intuitive to use. Each participant expressed satisfaction with the OneStart Classifieds and indicated that they would use the Classified Ads in the future. Although problems were identified with the OneStart Classifieds, these problems did not prevent the participants from completing the majority of required tasks. Implementing the recommendations listed above will greatly enhance the usability of the OneStart Classifieds.

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INTRODUCTION

The OneStart Classifieds is a system designed for Indiana University students, faculty and staff to view, post and delete ads. With such a diverse population using the Classifieds every day, it is important that the interface is usable. As a result, this study examined the usability of the OneStart Classifieds. The objectives of the study were to:

- Identify the positive attributes of the system
- Identify problems that exist within the Classifieds
- Make recommendations for improvements to the system

The usability tests were carried out with three test participants. All participants were graduate students studying some aspect of information technology. These users were selected because graduate students with some familiarity with computers are likely to have certain requirements for the Classifieds, such as the ability to search quickly. The first participant was a Doctorial Candidate in Computer Science. The second participant was a 1st year Masters student in the Informatics Human-Computer Interaction/Design program. The third participant was a 2nd year Masters student in the School of Library Science. Within that, we attempted to get as much web experience (i.e., different levels of experience) from the participants using the OneStart Classifieds program. The participants who volunteered their time are described in the Table 1.

Table 1: Summary of Participant Profile

Participant	Gender	Age	Title	Computer Experience	Did they know of OneStart Classifieds?	Have they used OneStart Classifieds?
1	Male	27	Doctoral Candidate in Computer Science	High	Yes	Yes
2	Female	37	1 st year M.S. student in Human-Computer Interaction (HCI)	Medium	No	No
3	Male	43	2 nd year M.S. student in Management Information Science (MIS)	High	No	No

Computer Experience was classified by the test participant according to these groupings:

- None (I have never used a computer)
- Low (I use one or two software applications, e.g. Microsoft Word, PowerPoint)
- Medium (I know of more than three software applications but do not have any programming skills)
- High (I have used more than five software applications and have some programming skills)

METHODOLOGY AND TASK LIST

For the usability testing, our team recruited three participants. Each session took about 20 minutes (21 minutes for each participant). For this project, our team used the room 003 in Informatics so we could use the Camtasia program that records screen shots of the computer in that room. One of our team members had a laptop with Windows Vista, but because the webcam did not work on Vista, our team prepared another laptop with Windows XP and one more Macintosh laptop. We installed the webcam on the computer that had Windows XP and the Macintosh laptop had the built-in webcam in it. Our team set up the webcams on the sides of the computer that the participants used. Therefore, we could have two different angles of the participants' faces.

Since our team did not want to make the participants feel awkward, we started recording the computer screen right before they started the usability test and stopped recording after the test was completed. We performed the testing for three days, from 18th through 20th of September, testing one participant each day. For each test, there was one facilitator, two observers and one time recorder. The facilitator was positioned next to the participant while the three remaining team members sat behind the participant approximately five feet back.

The scenarios for the test were written to provide realistic situations in which the users might use the Classifieds (see Appendix 5). Since there are many categories in the classifieds, our team wanted to test if the participants could find the correct category. Also, the scenarios were designed such that participants had to test different functionality of the interface. For example, certain tasks asked participants to utilize the categories defined in the Classifieds while other tasks directed participants to utilize the search tool.

For the first scenario and the corresponding tasks, our team wanted to see how easily the participants could find OneStart and log in to the system. Because our team had seen many people first visit the Indiana University Bloomington website and use the "Popular Campus Sites" drop down menu to go to OneStart, we wanted to check if it was the common way for the participants to find the site. Also, due to different customized settings, users see different screens when they log in to the system. Sometimes users have a hard time finding the classifieds and do not even know they exist in the system. As a result, the second task was designed to see how easily participants could find the classifieds in the system and find the advertisement they wanted to see.

The second and third scenarios were to find a specific ad. Our team chose two of the categories in the classifieds and gave the tasks to find the right categories and get the certain information. Because there are many different kinds of ads in those two categories, we also wanted to see how they find the exact information. For example, our team wanted to see if they use the search tool or just scroll down all the ads.

The fourth and fifth tasks were to post and delete an ad in the classifieds, respectively. Some users may use the classifieds to find what they want to buy, so they may only view the ads. However, it is not always the same for different users. In the cases when they want to post an ad, our team tried to see how easily participants could post an ad in the Classifieds. For the ads they

posted, they would sometimes have to delete the ad. For this, we gave another scenario and task because there is “post ad”, but no “delete ad” once they are in the classified system. To delete the ad they posted, they needed to go to “My ads” to delete the ads. Our team tried to find how they perform the task of deleting the ads.

The final scenario and the corresponding task were to use the search tool in the classifieds. Even though it is not very hard to find the right ads without using the search tool, our team tried to see if the participants understood what the search tool does and if they can easily use the search tool with the right keywords. Also, we wanted to see if the search tool is placed at a good position so that users can find it easily.

EVALUATION METHODS AND RESULTS

The Classifieds is one of the commonly used features in the OneStart system. The goal of the usability testing was to find out how easily users can access and use the classifieds in OneStart system and what needs to be improved. By giving various kinds of scenarios and tasks to the test participants, our team wanted to determine what type of errors they face and get any suggestions from participants after using the Classifieds. Each task had a specific goal to complete and the tasks tested various aspects of the Classifieds.

Quantitative data

Once testing was complete, the recordings were reviewed and the completion time, number of clicks and number of errors were recorded for each participant and each task. Table 2 provides the raw data for each user. It is interesting to note that for two tasks, the time to completion in two tasks (highlighted) differed by more than 20 seconds and for three tasks (highlighted), the number of clicks differed by more than three clicks from the most efficient user to the least efficient user. The two tasks with the discrepancy in time to complete the task were also the two tasks on which participants made errors.

Table 2: Raw data from usability tests

Task	Time to Complete [s]			Number of Clicks			Number of Errors		
	User 1	User 2	User 3	User 1	User 2	User 3	User 1	User 2	User 3
Login	30	24	19	1	6	4	0	0	0
Find Classifieds	5	19	13	1	1	0	0	0	0
Find car	36	21	45	2	4	9	0	0	0
Find tennis partner	15	30	29	1	3	2	0	0	0
Find "Furniture"	2	11	5	1	1	1	0	0	0
Find futon	12	27	25	1	3	6	0	0	0
Find contact info	1	2	2	0	0	1	0	0	0
Post ad	65	80	42	8	8	6	1	1	0
Delete ad	10	5	6	3	3	3	0	0	0
Find "Search" tool	6	1	2	0	0	0	0	0	0
Search for car charger	22	54	38	2	5	4	0	1	1

In order to get an overall picture of the results, the average and standard deviation were calculated for the time to complete, the number of clicks and the number of errors. This data can be found in Table 3. The highlighted cells in this table represent the tasks with large completion time discrepancies and the tasks during which errors occurred. These two tasks took the longest time for the participants to complete and had the only errors.

Table 3: Data analysis from usability tests

Task	Average Time to Complete Task [s] (Std. Dev. [s])	Average Number of Clicks (Std. Dev.)	Average Number of Errors (Std. Dev.)
Login	24.33 (5.51)	3.67 (2.52)	0
Find Classifieds	12.33 (7.02)	0.67 (0.58)	0
Find car	34.00 (12.12)	5.00 (3.61)	0
Find tennis partner	24.67 (8.39)	2.00 (1.00)	0
Find "Furniture"	6.00 (4.58)	1.00 (0.00)	0
Find futon	21.33 (8.14)	3.33 (2.52)	0
Find contact info	1.67 (0.58)	0.33 (0.58)	0
Post ad	62.33 (19.14)	7.33 (1.15)	0.67 (0.58)
Delete ad	7.00 (2.65)	3.00 (0.00)	0
Find "Search" tool	3.00 (2.65)	0.00 (0.00)	0
Search for car charger	38.00 (16.00)	3.67 (1.53)	0.67 (0.58)

Using the classification method similar to that suggested by Dumas and Redish [1], the usability problems were divided into four categories:

- Level 1: Prevents Task – Task cannot be completed or alternate method required
- Level 2: Significant Delay – User temporarily delayed
- Level 3: Minor Effect – Annoyance in the system
- Level 4: Suggestion – Improvements to the system

Level 1 (Prevents Task) represents the most severe problems, such as those that inhibited the participant's ability to complete the given task. The definition of preventing a task was further expanded to include problems in the interface that forced the user to find an alternate method to complete a task. In other words, if users were forced to use an inefficient method to complete a task, the problem was ranked in the most severe category.

If a usability problem did not prevent the completion of a task but still hindered the participants' progress, it was categorized as a Level 2 (Significant Delay). Such problems were identified when participants had to stop and rethink their actions. A problem that was a minor annoyance but did not impede the participants' progress on a task was classified as a Level 3 problem (Minor Effect). Finally, additions to the system suggested or revealed during testing that would improve the system were categorized as a Level 4 problem (Suggestion).

In order to aid data analysis, the four severity categories were then aggregated into two groups: major and minor problems. The first two severity levels (Prevents Tasks and Significant Delay) were considered major problems because the users' interactions with the system were significantly interrupted. The third and fourth severity levels (Minor Effect and Suggestion) were considered minor problems since the users were able to continue working on a task essentially unaffected.

Qualitative data

One form of qualitative data obtained during testing was a video of the participants' facial expressions. As the participants completed each task, their facial expressions and body language sometimes revealed even more information than the actions they were actually performing.

For all three participants, their facial expressions indicated a relaxed state throughout most of the test. The majority of the tasks were performed quickly and with little difficulty. However, two participants had looks of confusion whenever they tried to use the search tool and could not find the correct item. Likewise, one participant appeared especially frustrated when the search tool did not work even after multiple keyword combinations.

The observers of the usability test noted that the majority of the participants went to the Indiana University Bloomington homepage and then used the Popular Campus Sites drop down menu to find the OneStart web portal. The observers also noted that two of the participants searched under the Student Tools tab to find the Classifieds within OneStart. It was observed that the Classifieds appeared on a different side of the page depending on which tab was selected. If the participant selected the Student Tools tab, the ads appeared on the right side. If the participant selected the Campus tab, the Classifieds appeared on the left side of the page. The location of the Classifieds on the page did not appear to affect whether or not it could easily be found by the participant.

The debriefing questions revealed that the participants were generally pleased with the OneStart Classifieds. Despite the difficulty the participants experienced with the search tool, the majority identified it as the most valuable feature of the OneStart Classifieds. The majority of the participants expressed a desire to have subcategories available to further refine a search. One participant requested additional categories be made available (e.g. personals). All three participants stated that they would like to be able to view a picture of the item described in an ad.

During the debriefing, all participants reported that they successfully completed the study. Yet, one participant was unable to complete a question that required the use of the search tool to find a Motorola car charger. The participant repeatedly entered "Motorola charger" with no success.

The search tool requires that the user enters a string of characters that exactly matches at least part of the string of characters that makes up the title or description listed within the ad. It should be noted that the participants were not provided with an error message when they used the search tool incorrectly. For a complete listing of the responses to the debriefing questions, see Appendix 9.

The Post Test Questionnaire also revealed that the participants were satisfied with the OneStart Classifieds and found the Classifieds to be useful. Each participant agreed that they would use the Classifieds in the future.

Based on the majority of the participants' responses to the Post-Test Questionnaire, one can conclude the following:

- It was easy for the participants to find the Classifieds within OneStart.
- The participants found that the interface of the Classifieds was organized and easy to understand.
- It was easy for the participants to use the categories to search for an item.
- Once an ad for an item was found, it was very easy for the participants to find the contact information for the person who posted the ad.
- The participants found it to be very easy to post an ad.
- The participants found it to be easy to delete an ad.

Within the comment section of the Post Test Questionnaire, one user noted that he used the "page search". The "page search" or the search functionality embedded within the browser was actually used by two of the participants. Both participants initially used the OneStart search tool, and then, when faced with a large number of results, further limited their search by using the search functionality embedded within the browser to find specific items on the page. For a complete listing of the responses to the Post Test Questionnaire, see Appendix 10.

It should be noted that despite the fact that the OneStart Classifieds were easy for the participants to find, two of the three participants reported that they had never heard of the OneStart Classifieds and had no experience with the program.

USABILITY PROBLEMS AND RECOMMENDATIONS

Before focusing on the problems of the system, it is important to note that usability testing revealed a number of positive characteristics of the OneStart classifieds. Each item on the list represents something that the users found particularly helpful or were able to use without any difficulty.

Successes of the System

1. OneStart was easy for participants to find. Although only one subject typed the web address in directly, all three users were able to quickly find OneStart and log in.

2. All subjects immediately found the search tool and recognized its purpose. In addition, they all understood what the categories were for and what the “post ad” and “my ads” functions did.
3. Error messages provided helpful information as to how to correct the error. Specifically, the error message on the “post ad” page let participants know that certain required fields had not been properly filled in.
4. Users were able to quickly delete an ad that they had previously posted.

Although there were some successes, the results of the usability testing also revealed certain problems with the interface of the OneStart Classifieds. As described previously, the problems were divided into the four severity levels and then categorized as major and minor problems. Once the problems were identified, they were analyzed and recommendations were made regarding possible solutions. Table 4 provides a summary of the problems identified and the corresponding recommendations. Detailed explanations of each problem and the corresponding recommendations are provided below.

Table 4: Usability problem descriptions and recommended solutions

Severity	Problem Description	Recommendations
Level 1:	Search tool cannot handle multiple keywords unless they are entered in the exact order	Redesign the search tool to accept multiple keywords in any order
Level 2:	Difficult to narrow down search list to a manageable number of products	Allow for refined searches and add subcategories
Level 2:	Category not automatically displayed when “post ad” selected from within a specific category	Automatically select category from within which the user selected “post ad”
Level 3:	Main categories of classifieds not divided into subcategories	Create subcategories for categories containing more than 25 products
Level 3:	No explanation for the definition of the asterisks (*) on the “post ad” page	Add “* Required Fields” to the top of the “post ad” screen
Level 4:	Interface does not accommodate pictures	Allow users to upload a picture of the product when an ad is posted

Major Problems

1. (Level 1) The search tool requires users to enter keywords in the exact order in which they appear in the ad. Otherwise, the search does not yield any results when multiple keywords are searched. Such precision is unrealistic, especially considering that many people searching the classifieds do not know exactly what they want to find.

Recommendation: Since the searching problem is a global problem affecting the entire site, solving this problem involves a complete redesign of the search tool. When multiple keywords are entered, the search should find results that contain the keywords in any order, including when the words are not consecutive.

2. (Level 2) The system makes it difficult to narrow down the list of products. If a user searches once and the initial search provides a long product list, the user cannot use the search tool a second time to search only the displayed results. Every time the search tool is used, it searches through all the products in every category. Similarly, two participants utilized the browser's search tool rather than the search tool embedded in the Classifieds.

Recommendation: The search tool should be made more powerful and subcategories should be added. When a user is faced with a long list of products, he or she should be able to narrow down the search either by using the search tool to search through the displayed results or by choosing a subcategory.

3. (Level 2) When a user selects a category and then selects "post an ad," the category is not automatically filled in. Then when a user tries to post an ad, he or she receives an error message saying that an ad cannot be posted without specifying a category.

Recommendation: The system should be redesigned so that when a user first selects a category and then selects "post ad," the category he or she selected should automatically be filled in on the "post ad" form. This would solve the problem of users getting confused when they are told they need to select a category in order to post an ad.

Minor Problems

1. (Level 3) The categories in which the ads are classified are very broad. For example, users have to scroll through the entire "Electronics" category to find a cell phone.

Recommendation: The large categories should be divided into smaller, more precise subcategories, particularly for categories containing more than 25 items. For example, the category "Electronics" could be divided into subcategories such as "Televisions," "Cell Phones," "DVD Players," etc. That way, a user could select the general category first to see how many entries there are. If a user then wanted to narrow down the selections, he or she could select the relevant subcategory.

2. (Level 3) On the "post ad" page, some form fields are preceded by an asterisk (*); however, there is no mention of what the asterisk means.

Recommendation: This problem is a local issue that affects only the "post ad" page. At the top of the "post ad" form, there should be a brief explanation to describe what the asterisk indicates. A message as simple as "* Required" would let a user know that certain fields are required.

3. (Level 4) The interface does not allow a user to post a picture of the product he or she is selling.

Recommendation: The “post ad” section should include an “Upload Picture” link. This option would allow a user to post a picture with an ad, allowing customers to view a product before purchasing it.

REFERENCES

- [1] Dumas, J. R. and J. C. Redish. *A Practical Guide to Usability Testing*. Ablex Publishing Corporation, Norwood, NJ (1993).

APPENDIX 1: CONSENT FORM

Title of Study:

Investigators: Jennifer Allen, Eric Drewski, Ashley Engelhardt, Junyoun Kim

This is a research study. Please take your time in deciding if you would like to participate. Please feel free to ask questions at any time.

INTRODUCTION

The purpose of this study is to gain insight in the uses and gratifications of the website OneStart Classifieds at Indiana University-Bloomington. You do not need to give your name or student ID number. The information that we hope to gain will be your uses of this website. You are being invited to participate in this study because you are an undergraduate student at Indiana University-Bloomington.

DESCRIPTION OF PROCEDURES

If you agree to participate in this study, your participation will last for 30 to 40 minutes. During the study you may expect the following study procedures to be followed. You will be asked to short pre-test questionnaire about yourself. You may skip any question that you do not wish to answer or that makes you feel uncomfortable.

RISKS

While participating in this study there are no foreseeable risks at this time from participating in this study.

BENEFITS

If you decide to participate in this study there will be no direct benefit to you. It is hoped that the information gained in this study will benefit society by providing valuable information for designing better interfaces and websites for universities and developing better means of measuring the uses derived from these websites.

COSTS AND COMPENSATION

You will not have any costs from participating in this study. You will not be compensated for participating in this study. Any extra credit associated with a course is determined solely by the instructor of that course.

PARTICIPANT RIGHTS

Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any time. If you decide to not participate in the study or leave the study early, it will not result in any penalty or loss of benefits to which you are otherwise entitled.

CONFIDENTIALITY

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy your records for quality assurance and data analysis. These records may contain private information. Your name and all identifiable information will in no way be connected to the questionnaire and the answers you provide.

To ensure confidentiality to the extent permitted by law, the following measures will be taken a unique code and letter and will be used on forms instead of your name. If identifiers will be kept with the data this must be also stated. The four principle investigators will be the only individuals who will have access to the surveys. The surveys will be kept in a locked filing cabinet for confidentially purposes. The data will be retained for one year. All pre-test questionnaires will be destroyed after its intended use. If the results are published, your identity will remain confidential.

PARTICIPANT SIGNATURE

Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document and that your questions have been satisfactorily answered. You will receive a copy of the written informed consent prior to your participation in the study.

Participant’s Name (printed) _____

(Participant’s Signature)

(Date)

INVESTIGATOR STATEMENT

I certify that the participant has been given adequate time to read and learn about the study and all of their questions have been answered. It is my opinion that the participant understands the purpose, risks, benefits and the procedures that will be followed in this study and has voluntarily agreed to participate.

(Signature of Person Obtaining Informed Consent)

(Date)

APPENDIX 2: PRE-TEST QUESTIONNAIRE

Pre-Test Questionnaire

ITERATION: _____

LOCATION: _____

USERNAME: _____

DATE: _____

FACILITATOR: _____

USER NO: _____

TIME: _____

DATA COLLECTOR: _____

We need to know some things about you in order to best interpret and analyze you reactions to the interface of OneStart Classifieds on the Indiana University-Bloomington website. Please answer the following questions.

1. What is your gender
____Male
____Female
2. When was your last birthday?
3. Are you a student at Indiana University-Bloomington?
____Yes
____No
4. What is your intended major at Indiana University-Bloomington?
5. Do you know of OneStart Classifieds?
____Yes
____No
6. Have you used OneStart Classifieds?
____Yes
____No
7. How would you describe your computer experience
____None (I have never used a computer)
____Low (I use one or two software applications, e.g., Microsoft Word, PowerPoint)
____Medium (I know of more than three software applications but do not have any programming skills.)
____High (I have used more than five software applications and have some programming skills.)

APPENDIX 3: TEAM MEMBER ROLES

Team Members Roles

Facilitator: Eric Drewski

The facilitator is in charge of coordinating the team. In addition, the facilitator is the only team member who interacts directly with the subject during testing. The facilitator reads the test questions and answers any questions during testing.

Observers: Jenny Allen and Junyoup Kim

The observers record relevant information during testing. They note subject behavior during testing, user comments, number of clicks, etc.

Time Recorder: Ashley Engelhardt

The time recorder monitors the test time. In addition, the time recorder monitors the time to complete each task and any other important time measurement.

APPENDIX 4: SCRIPT FOR TESTING

Script for Testing

Thank you for participating in this test. We are evaluating the usability of the OneStart Classifieds. It is important to note that we did not participate in the development of this website, so do not be afraid to speak your mind. You will be asked to complete a variety of tasks using the OneStart Classifieds. As you work through the tasks, please think aloud to provide any feedback you may have.

At the end of testing, you will be asked some follow-up questions. Some of these questions will be open-ended questions regarding your opinion. Other questions will be used to clarify something that was done or said during testing.

Also, remember that we are not testing you – we are testing the usability of the website. During testing, we will be recording using a web cam and an onscreen recording. All recordings made during the test will be used only by us for evaluation purposes.

Feel free to ask any questions you may have along the way but keep in mind that I may not be able to answer them. In addition, I may ask additional questions to clarify something you have done or said. If at any time you would like to stop testing, let me know.

APPENDIX 5: TASKS AND SCENARIOS

Tasks and Scenarios

1. One of your friends told you he posted an ad on the classifieds of OneStart. He is selling his blue Mustang and you want to know more about the car. However, he is so busy that he does not have time to show his car to you. He asks you to check the ad that he posted in the classifieds of OneStart.
 - i) Go to OneStart and Log in
 - ii) Locate the ad in 'Classifieds' that your friend posted for this Mustang
2. Since you were ten years old, you have played tennis and still enjoy playing it today. However, none of your friends have ever played tennis before and you will have to teach them before you and your friends can even enjoy playing tennis. You want to find a person who is good at tennis so that you don't need to teach them.
 - i) Find the appropriate category for the tennis and find someone to play tennis with
3. You are a new student here at IU and you are living in an apartment near campus. Because now you have an empty living area, you want to have something in that area. For that, you want to get a used futon for a cheap price.
 - i) Find a futon that you like in the classifieds
 - ii) Find the contact information of the seller.
4. Your parents gave an old TV to you when you moved in to your new apartment, but you do not like the TV because it is too small and heavy, and it's already fifteen years old. Unfortunately, even your friends laugh at it. Now you want to get a new fancy TV, but before getting a new one, you want to sell the old one for a cheap price through OneStart.
 - i) Post an ad on the classifieds
5. You just posted an ad for your TV. In a minute, your friend comes to your apartment and says he wants to buy your TV. Now you do not need the ad that you posted.
 - i) Delete the ad that you just posted
6. Now you want to buy a cellular car charger for your Motorola phone, but you do not know in what section you need to go.
 - i) Use the search tool and find the charger

APPENDIX 6: DEBRIEFING QUESTIONS

Debriefing Questions

1. Were you able to complete each task of the usability study?
2. Did you feel that the instructions for the usability test were clear?
3. Were there any tasks that were easy to complete?
4. Were there any tasks that were difficult to complete?
5. Were there any tasks that you were asked to do that you found to be confusing?
6. What is your overall impression of the OneStart Classifieds?
7. What features of the Classifieds, if any, do you like?
8. What features of the Classifieds, if any, do you dislike?
9. What feature of the Classifieds did you find to be most valuable?
10. If you could add a feature to the Classifieds, what would it be?
11. Do you have any additional comments about the Classifieds?

APPENDIX 7: POST-TEST QUESTIONNAIRE

Post-Test Questionnaire

Please answer the following questions by circling the answer that best expresses your opinion and provide us with any comments that you feel are relevant to the answer you selected. Your honest opinion is very important to the success of this study, so tell us exactly what you think.

1. How easy or difficult was it to find the Classifieds within OneStart?
 - a. Very easy
 - b. Easy
 - c. Neither easy nor difficult
 - d. Difficult
 - e. Very difficult

Comments:

2. Is the interface of the Classifieds easy or difficult to understand?
 - a. Very easy
 - b. Easy
 - c. Neither easy nor difficult
 - d. Difficult
 - e. Very difficult

Comments:

3. Is the interface of the Classifieds well organized?
 - a. Well organized
 - b. Organized
 - c. Neither organized nor disorganized
 - d. Disorganized
 - e. Very disorganized

Comments:

4. How easy or difficult was it to search for someone to play tennis with?
 - a. Very easy

- b. Easy
- c. Neither easy nor difficult
- d. Difficult
- e. Very difficult

Comments:

5. How easy or difficult was it to find the contact information for a person who posted the ad for a tennis partner?
- a. Very easy
 - b. Easy
 - c. Neither easy nor difficult
 - d. Difficult
 - e. Very difficult

Comments:

6. How easy or difficult was it to use the search tool to find the cell phone charger?
- a. Very easy
 - b. Easy
 - c. Neither easy nor difficult
 - d. Difficult
 - e. Very difficult

Comments:

7. How easy or difficult was it to post an ad?
- a. Very easy
 - b. Easy
 - c. Neither easy nor difficult
 - d. Difficult
 - e. Very difficult

Comments:

8. How easy or difficult was it to delete an ad?
- a. Very easy
 - b. Easy
 - c. Neither easy nor difficult
 - d. Difficult
 - e. Very difficult

Comments:

9. How would you rate your overall satisfaction with the Classifieds?
- a. Very satisfied
 - b. Satisfied
 - c. Neither satisfied or nor dissatisfied
 - d. Dissatisfied
 - e. Very dissatisfied

Comments:

10. How would you rank the overall usefulness of the Classifieds?
- a. Very useful
 - b. Useful
 - c. Moderately useful
 - d. Not useful
 - e. Not at all useful

Comments:

11. Would you use the Classifieds in the future?
- a. Strongly agree
 - b. Agree

c. Neither agree nor disagree

d. disagree

e. Strongly disagree

Comments:

APPENDIX 8: DATA LOGGING SHEET

- Target Subject # _____
- Location : _____
- Date : _____
- Time : _____
- Facilitator : _____ / Observer : _____

Scenarios and Tasks	Task completed?	Number of problems encountered and description of problems	Duration	Note
1. Log in to OneStart	Y / N			
Find ‘Classifieds’	Y / N			
2. Find ‘Activity Partners’	Y / N			
3. Find ‘Furniture’	Y / N			
Find a futon	Y / N			
Find contact Information	Y / N			
4. Find ‘Electronics’	Y / N			
Post an ad	Y / N			
5. Delete the ad you just posted.	Y / N			
6. Find ‘Search tool’	Y / N			
Search for charger	Y / N			

APPENDIX 9: ANSWERS TO DEBRIEFING QUESTIONS

Question	Response	
Were you able to complete each task of the usability study?	Participant 1:	Yes.
	Participant 2:	Yes.
	Participant 3:	Yes.
Did you feel that the instructions for the usability test were clear?	Participant 1:	Yes.
	Participant 2:	Yes.
	Participant 3:	Exceedingly clear. This is the first time anyone has actually read me the consent form.
Were there any tasks that were easy to complete?	Participant 1:	Everything was easy.
	Participant 2:	Finding the Mustang.
	Participant 3:	They were all relatively easy.
Were there any tasks that were difficult to complete?	Participant 1:	No.
	Participant 2:	Not finding the Motorola charger threw me a little bit.
	Participant 3:	No not really. Well learning a new system, it's hit or miss with any new system.
Were there any tasks that you were asked to do that you found to be confusing?	Participant 1:	No.
	Participant 2:	Not finding the Motorola charger.
	Participant 3:	Well I didn't understand the wording of one of the questions but once I understood it was easy.
What is your overall impression of the OneStart Classifieds?	Participant 1:	It is easy to use. There are categories on the site so I can quickly find what I am looking for.
	Participant 2:	It's the first time I've seen it, fairly intuitive, posting the ad and going back and deleting the ad was easy. It was operational.
	Participant 3:	It's neat, it's intuitive. I don't know with so many other classifieds out there why do I want to use it as opposed to some other you know craigslist or some other IU classified.
What features of the Classifieds, if any, do you like?	Participant 1:	I think it gives enough ability to use it conveniently.
	Participant 2:	Again the posting the ad and being able to review the ads. The listing seems to be fairly intuitive but I'd be curious to explore it a little bit. But without the search you would be in trouble.

	Participant 3:	The search engine worked fairly well.
What features of the Classifieds, if any, do you dislike?	Participant 1:	So far I cannot find anything.
	Participant 2:	None.
	Participant 3:	Well the categories were a bit limited. I don't think it's detailed enough. I could think of a lot of other things. What about personals? I just expect to see a longer list. And maybe when you click on the list there would be subcategories or at least a way to search through the categories or category filter. Maybe I click here and all the results would come up and there would be a list of subcategories where I could refine that search.
What feature of the Classifieds did you find to be most valuable?	Participant 1:	The "Electronics" category. Most of the brand names I already knew so I could quickly find it.
	Participant 2:	The search.
	Participant 3:	Well again I'd go with the search engine. It was fairly accurate
If you could add a feature to the Classifieds, what would it be?	Participant 1:	Does it have the ability to show pictures? I think it's better to show a picture.
	Participant 2:	Maybe subcategories. Any of the categories.
	Participant 3:	Can you browse by date? Maybe pictures. So if you wanted to buy something maybe a picture would come up or at least the ability to post a picture.
Do you have any additional comments about the Classifieds?	Participant 1:	I don't have anything right now.
	Participant 2:	I didn't know they existed. It would be nice if you had to option to view a picture.
	Participant 3:	I know there is at least one other classifieds site on IU. There are other classifieds around town so what's going to make this more valuable?

APPENDIX 10: ANSWERS TO POST-TEST QUESTIONNAIRE

Question 1:					
How easy or difficult was it to find the Classifieds within OneStart?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1	*				
Participant 2			*		
Participant 3	*				
Comments:					
Question 2:					
Is the interface of the Classifieds easy or difficult to understand?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1	*				
Participant 2		*			
Participant 3		*			
Comments:					
Question 3:					
Is the interface of the Classifieds well organized?	Well organized	Organized	Neither Well Organized nor Disorganized	Disorganized	Very Disorganized
Participant 1		*			
Participant 2		*			
Participant 3	*				
Comments:					
Question 4:					
How easy or difficult was it to search for someone to play tennis with?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1	*				
Participant 2		*			
Participant 3	*				
Comments:					
"Page search for "tennis" showed 3 or 4 people on the page."					

Question 5:					
How easy or difficult was it to find the contact information for a person who posted the ad for a tennis partner?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1	*				
Participant 2	*				
Participant 3	*				
Comments:					
Question 6:					
How easy or difficult was it to use the search tool to find the cell phone charger?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1	*				
Participant 2				*	
Participant 3		*			
Comments:					
"Not posted - so difficult in that nothing I tried worked."					
Question 7:					
How easy or difficult was it to post an ad?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1	*				
Participant 2	*				
Participant 3	*				
Comments:					
Question 8:					
How easy or difficult was it to delete an ad?	Very Easy	Easy	Neither Difficult or Easy	Difficult	Very Difficult
Participant 1		*			
Participant 2	*				
Participant 3	*				
Comments:					
Question 9:					
How would you rate your overall satisfaction with the classifieds?	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied

Participant 1		*			
Participant 2		*			
Participant 3		*			
Comments:					
Question 10:					
How would you rank the overall usefulness of the Classifieds?	Very useful	Useful	Moderately Useful	Not Useful	Not at All Useful
Participant 1	*				
Participant 2		*			
Participant 3		*			
Comments:	"But there is a lot of competition out there. Why do I want to use OneStart?"				
Question 11:					
Would you use the Classifieds in the future?	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Participant 1		*			
Participant 2		*			
Participant 3		*			
Comments:	"Probably the reason I have never browsed the OneStart Classified ads before is because I did not know they existed."				

APPENDIX 11: SUGGESTIONS/COMMENTS FROM USERS

Suggestions for OneStart Classifieds

All three users had two suggestions to improve the website:

- First, to include pictures with the posted ads. For example, when they were looking for the blue mustang (scenario #1, task#2) they wanted to see a picture of it. The users said this would give them better idea if they were to purchase the vehicle.
- Second, to include subcategories within the main categories. For instance, when they were searching for a Motorola car charger (scenario #6, task #2) the users found it difficult to locate it. The users suggested a subcategory for the charger so it would easier to locate.

Comments on OneStart Classifieds

The comments are classified into one of the following categories:

Positive finding

The participant had no problems with the website.

Category code: P

Minor Problem

The participant hesitated for a few seconds.

Category Code: M

Serious Problem

The participant was delayed beyond one minute; however, he or she was able to continue with the assigned task.

Category Code: S

Suggestion

The participant suggested a solution that would improve user experience.

Category: A

Participant	Category	Description
1	P	Finding the Classifieds within OneStart? <i>Very Easy</i>
2	P	Finding the Classifieds within OneStart? <i>Very Easy</i>
3	P	Finding the Classifieds within OneStart? <i>Very Easy</i>

1	P	The main interface of the Classifieds? The main interface was <i>very easy</i> to understand.
2	M	The main interface of the Classifieds? The main interface was <i>neither easy not difficult</i> to understand.
3	P	The main interface of the Classifieds? The main interface was <i>easy</i> to understand.
1	P	The organization of the main interface of Classifieds? The main interface was <i>organized</i> .
2	P	The organization of the main interface of Classifieds? The main interface was <i>organized</i> .
3	P	The organization of the main interface of Classifieds? The main interface was <i>well organized</i> .
1	P	Searching for someone to play tennis with? It was <i>very easy</i> to search for someone.
2	P	Searching for someone to play tennis with? It was <i>easy</i> to search for someone.
3	P&A	Searching for someone to play tennis with? It was <i>easy</i> to search for someone. Quote from participant, “Page ctrl-F search for “tennis” showed 3 or 4 possible ad on the page.
1	P	Finding contact information for a person who posted an ad? It was <i>very easy</i> to find the contact information.
2	P	Finding contact information for a person who posted an ad? It was <i>very easy</i> to locate the contact information.

3	P	Finding contact information for a person who posted an ad? It was <i>very easy</i> to locate the contact information.
1	P	Searching for the cell phone charger? It was <i>very easy</i> to find the cell phone charger?
2	S&A	Searching for the cell phone charger? It was <i>difficult</i> to find the cell phone charger? Quote from participant, "Not posted-so difficult in that nothing I tried worked."
3	P	Searching for the cell phone charger? It was <i>easy</i> to find the cell phone charger?
1	P	Posting an ad? It was <i>very easy</i> to post an ad.
2	P	Posting an ad? It was <i>very easy</i> to post an ad.
3	P	Posting an ad? It was <i>very easy</i> to post an ad.
1	P	Deleting an ad? It was <i>easy</i> to delete an ad.
2	P	Deleting an ad? It was <i>easy</i> to delete an ad.
3	P	Deleting an ad? It was <i>easy</i> to delete an ad.
1	P	What is their overall satisfaction with Classifieds? The user was <i>satisfied</i> with Classifieds.

2	P	What is their overall satisfaction with Classifieds? The user was <i>satisfied</i> with Classifieds.
3	P	What is their overall satisfaction with Classifieds? The user was <i>satisfied</i> with Classifieds.
1	P	The overall usefulness of Classifieds? The user found Classifieds to be <i>very useful</i> .
2	P	The overall usefulness of Classifieds? The user found Classifieds to be <i>useful</i> .
3	P&A	The overall usefulness of Classifieds? The user found Classifieds to be <i>useful</i> . Quote from participant, "But there is a lot of competition out there-why do I want to use OneStart."
1	P	Would you use Classifieds? The user would <i>agree</i> to use classifieds in the future.
2	P	Would you use Classifieds? The user would <i>agree</i> to use classifieds in the future.
3	P&A	Would you use Classifieds? The user would <i>agree</i> to use classifieds in the future. Quote from participant, "Probably the reason I have never browsed the OneStart Classified ads before is because I did not know they existed."