



University Libraries

UEX Research Test Materials

Megan Leney

Contents

Introduction.....	3
Research goals and purpose.....	3
Concerns	3
Usability evaluation goals.....	3
Usability tasks.....	4
Participant characteristics.....	4
Beginning library users	4
Advanced library users.....	4
Graduate students involved in teaching.....	4
Participant screener script	5
Introduction.....	5
Screening questions.....	5
Informed consent	7
Method	9
Test environment.....	9
Moderator roles	9
Schedule.....	9
Test script.....	10
Participant greeting	10
Orientation script.....	10
Performance evaluation	10
Task completion script.....	10
Participant debriefing	12
Post-evaluation interview	12
Post-test questionnaire.....	13
Data collection.....	14
Deliverables	14

Introduction

This document describes the usability evaluation plan for the University Libraries project. The IAKM60104 Usability I class (Fall Semester, 2012) is performing a usability study on the Kent University Libraries Web site as a class project. The usability research will evaluate the ease or difficulty with which participants perform tasks on the current site, detect problems, and make recommendations for improving the site, particularly with the navigation, labeling, and search capabilities. Specific measureable goals for the usability evaluation are outline in the *Usability evaluation goals* section of this document.

The University Libraries site (<http://www.kent.edu/library/index.cfm>) is a sub-site within the larger university Web site: <http://www.kent.edu>. The Libraries site provides a wealth of resources you need to study an academic discipline, perform research, or teach classes at Kent State University. The site not only provides access to books and journal articles, but also provides study spaces, study skills advice, community activities, and more. Much of the site is organized around these audiences: students, faculty, and community. Anyone can access the University Libraries site from a standard Web browser.

Research goals and purpose

The usability evaluation of the University Libraries site will evaluate where participants are encountering errors and difficulties when they use the current site. Some of the areas that will be tested through the usability evaluation process were derived from a heuristic evaluation that the Usability I class performed. Other concerns were identified by the library staff.

The University Libraries sub-site was recently redesigned, and the library staff has reported that users find the site more difficult to use than it was before the redesign. Staff also reports that they are getting more calls from users who don't know where to find the resources they need. The library staff is particularly interested in knowing if participants will self-identify and find it useful to navigate to resources via the following audience-specific pages: "Resources for Students," "Resources for Faculty," and "Resources for Community Members." The library staff also wants to know if participants can locate and use the search function on the main page, and easily find the library hours.

Concerns

This section outlines the specific concerns that the library staff, development team, and Usability I class may have. The research seeks to answer the following questions:

- How do users initially get to the University Libraries sub-site?
- How well do the labels for tabs, drop-down lists, and pages represent the content?
- How well does the site organization support user goals?
- Do users see and use the QuickJump search box on the main Libraries page?
- How easy or hard is it to find the library hours?

Usability evaluation goals

The Usability I class created specific usability goals based on the above concerns. The goals allow for the creation of tasks that will let us know if our concerns are valid and what measures can help us determine if, in fact, the participants are having trouble completing tasks.

This evaluation will be based on the following usability goals:

- Participants will be able to go to the University Libraries main page (<http://www.kent.edu/library/index.cfm>) from a Google search window.

- Participants will be able to complete activities or locate specific information within specific time limits. Participants will be asked to complete series of tasks, listed in the *Usability tasks* section of this document, within established benchmark times. We will time participants during the usability evaluation. Participants will be able to complete the tasks within 150% of the benchmark times.
- Participants will be able to move through the site with no expressed or visible difficulty.
- Participants will be able to find related information with no expressed or visible frustration.
- Participants will have no more than two failed attempts in finding specific information.

Usability tasks

The Usability I class designed the following tasks, with a benchmark of 5 minutes per task. Participants are expected to complete each task with no assistance.

- Find the library hours.
- Locate materials set aside by a specific professor for a specific course.
- Schedule an appointment with a subject librarian in their graduate or undergraduate discipline.

Participant characteristics

The selection of participants whose background and abilities are representative of the University Libraries site's intended user is a critical element of the evaluation process. Valid results will be obtained only if the participants selected are typical end users of the site, or matched as closely to the criteria as possible.

The library staff has indicated that the majority of library users are current undergraduate or graduate students at Kent State. The library staff would like to omit students in the School of Library and Information Sciences (SLIS) from the study because they are less likely to encounter usability problems due to their additional coursework in library research.

Beginning library users

The study will select undergraduate and graduate students who are currently enrolled full-time at Kent State University in a non-SLIS discipline. The assumption is that these students will have less than three years of experience using the University Libraries Web site.

Advanced library users

The study will select undergraduate and graduate students who are currently enrolled full-time at Kent State University in a non-SLIS discipline. The assumption is that these students will have at least three years of experience using the University Libraries Web site.

Graduate students involved in teaching

The study will select graduate students who are currently enrolled full-time at Kent State University in a non-SLIS discipline. The assumption is that these students will have some teaching experience, perhaps as a teaching assistant.

Participant screener script

Introduction

Hello, may I please speak to _____ [respondant's name]? This is _____ [your name] and I'm with [screening organization].

We want to talk to students about the University Libraries Web site, and hoped you'd be interested in participating in a usability test. We'd like your help to learn more about how easy or hard it is to perform tasks and find information on the site.

The usability test lasts about 30 minutes, and in return for your time we are offering a candy bar and a soda. Your participation will help make it easier for students to use the library site in the future.

We'd like to spend about 20 minutes watching you use our site in our lab, with an additional 10-minute interview on _____ [specify date] or _____ [specify date] between the hours of _____ [specify time]. We are only available on those days, but we have some flexibility about the time those evenings. We also ask that you fill out a brief questionnaire at the end of the session.

Are you interested in participating and available during those times?

- ☐ Yes [continue to the screening questions]
- ☐ No [Thank the participant and end the phone screen]

Screening questions

That's excellent. I have a few questions to ask you to see if you fit the profile of the people we want for the test. Once we finish talking, I'll give your answers to the team to review. After that, I'll call you back to let you know if your background is a good fit and to schedule a time for your participation.

Question 1

Are you a full-time KSU student enrolled in at least 12 units?

- ☐ Yes [Continue to question 2]
- ☐ No [Tell the participant that we are looking for full-time students, thank the participant, and end the phone screen]

Question 2

Are you pursuing a degree from the School of Library and Information Sciences (SLIS)?

- ☐ Yes [Tell the participant that we are looking for non-SLIS students, thank the participant, and end the phone screen]
- ☐ No [Continue to question 3]

Question 3

Are you an undergraduate student or a graduate student?

- ☐ Undergraduate [Continue to question 5]
- ☐ Graduate [Continue to question 4]

Question 4 (Graduate students only)

Do you now or have you ever taught classes as a graduate teaching assistant at KSU?

- ☐ Yes [Continue to question 5]
- ☐ No [Continue to question 5]

Question 5

How long have you been a KSU student?

- ☐ Less than one year
- ☐ More than 1 year, but less than 2 years
- ☐ More than 2 years, but less than 3 years
- ☐ More than 3 years

Informed consent

Study Title: University Libraries

Principal Investigator: Aaron Rosenberg

You are being invited to participate in a research study. This consent form will provide you with information on the research project, what you will need to do, and the associated risks and benefits of the research. Your participation is voluntary. Please read this form carefully. It is important that you ask questions and fully understand the research in order to make an informed decision. You will receive a copy of this document to take with you.

Purpose:

To improve the usability of the Kent State University Libraries Web site

Procedures

This usability study involves spending about 20 minutes observing you use our site in our lab, with an additional 10-minute interview and brief post-interview questionnaire.

Video Recording and Eye Tracker

The study will be videotaped, and eye tracker data will be recorded. The tapes and eye tracker data will be used to evaluate usability and identify problems with the site.

Benefits

The research will improve the usability of the University Libraries Web site for future users.

Risks and Discomforts

There are no anticipated risks beyond those encountered in everyday life.

Privacy and Confidentiality

No identifying information will be collected. Your signed consent form will be kept separate from your study data, and responses will not be linked to you.

Compensation

Compensation includes a free soda and a candy bar.

Voluntary Participation

Taking part in this research study is entirely up to you. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. You will be informed of any new, relevant information that may affect your health, welfare, or willingness to continue your study participation.

Contact Information

If you have any questions or concerns about this research, you may contact Aaron Rosenberg at 330 310 5773. This project has been approved by the Kent State University Institutional Review Board. If you

have any questions about your rights as a research participant or complaints about the research, you may call the IRB at 330.672.2704.

Consent Statement and Signature

I have read this consent form and have had the opportunity to have my questions answered to my satisfaction. I voluntarily agree to participate in this study. I understand that a copy of this consent will be provided to me for future reference.

Participant Signature

Date

Method

A single usability evaluation will be run in 12 individual sessions over two testing days. Each individual session will consist of a set of tasks, an interview, and a questionnaire for participants to complete.

The individual evaluations will take place as follows:

- A performance evaluation in which each participant is asked to perform a short series of real-life tasks (approximately 20 minutes)
- An interview and questionnaire after each performance evaluation to gather additional insights from the participant about the University Libraries site (approximately 10 minutes)

Test environment

The usability evaluations will take place at the Kent State usability lab. The lab setting includes a computer, audio-visual equipment, and an eye tracker system. A student evaluator will sit next to each participant in the lab. Lab staff will be on hand to set up and operate the equipment.

Moderator roles

Six student evaluators will participate in the usability evaluations. Each student evaluator will conduct two usability sessions from start to finish. Student evaluators will use the script in the *Test script* section of this document to conduct the evaluations. Students will observe other student evaluators when they are not conducting sessions themselves.

Schedule

The usability evaluations will take place from 6:00 p.m. to 9:00 p.m. on November 7, 2012, and November 14, 2012.

Test script

Student evaluators will use the script in this section to conduct the usability evaluations.

Participant greeting

Each participant will be personally greeted by the facilitator and made to feel comfortable and relaxed. The participants will be given name tags and informed that they will be videotaped. Participants will be asked to sign a consent form.

Orientation script

“Hi [participant’s name], my name is _____. Thank you for participating in this usability evaluation. Your participation will provide valuable feedback to help improve the University Libraries Web site. This evaluation is a test of the Libraries Web site, and is in no way a test of your abilities or aptitudes. I am an independent researcher, and I had nothing to do with the design of this site, so feel free to give honest feedback about the site.”

“During the session, I will ask you to complete several tasks. Please try to think out loud as you are performing the tasks. Your responses will help us understand what does and does not work about the site.”

“The session will take about 20 minutes, and will include a 10-minute follow-up interview afterwards. Do you have any questions before we begin?”

Performance evaluation

The performance evaluation consists of a series of tasks that are evaluated separately and sequentially. The individual participants complete the tasks while being recorded on video and observed by the specialists. The scenario is as follows:

- After the orientation, participants will be asked to sit down at the computer. The student evaluator will give the participants verbal instructions about tasks to complete.
- After the participants begin to work through the evaluation scenario, they will be encouraged to work without guidance. The student evaluator may ask the participant to verbalize his or her thoughts if the participant becomes stuck or hopelessly confused. These occurrences will be noted by the student evaluator and will help pinpoint the cause of the problem.

Task completion script

The facilitator will guide the participant through the tasks as follows:

Help the participant set up the user interface and eye tracker. Ask the participant “Are you ready to begin?”

Facilitator: “Let’s begin by opening a browser and going to the main page of the University Libraries Web site. From there, I’ll ask you to complete three tasks.”

Do not tell the user the time limit. Time allocated: 3 minutes.

At the end of the time limit or after the participant completes the task, whichever comes first:

1. Inform the participant they have completed the navigation task.
2. If they have any questions, note their question and let them know you can answer questions at the end of the evaluation.
3. Reset the browser to the University Libraries main page if it is not already there.

Task 1

Facilitator: “You have a lot of assignments and find that the library is the quietest place to get work done. You’re not sure how late the library is open at night. How would you go about finding the library hours?”

Do not tell the participant the time limit. Time allocated: 5 minutes.

At the end of the time limit or after the participant completes the task, whichever comes first:

1. Inform the participant they have completed the first of three tasks.
2. If they have any questions, note their question and let them know you can answer questions at the end of the evaluation.
3. Reset the browser to the University Libraries main page if it is not already there.

Task 2

Facilitator: “You are enrolled in an Information Architecture course (IAKM60101) and the instructor is Dr. Karl Fast. Dr. Fast has set aside some course materials for students in his class to check out from the library. How would you go about finding those materials?”

Do not tell the participant the time limit. Time allocated: 5 minutes.

At the end of the time limit or after the participant completes the task, whichever comes first:

1. Inform the participant they have completed the second of three tasks.
2. If they have any questions, note their question and let them know you can answer questions at the end of the evaluation.
3. Reset the browser to the University Libraries main page if it is not already there.

Task 3

Facilitator: “You are starting to write a research paper, but realize you can use some help getting the most out of the library’s resources on that particular topic. How would you schedule an appointment with a librarian?”

Do not tell the participant the time limit. Time allocated: 5 minutes.

At the end of the time limit or after the participant completes the task, whichever comes first:

1. Inform the participant they have completed the last task.
2. Start the *Participant debriefing*.

Participant debriefing

After all tasks are complete or the time expires, each participant will be briefed by the facilitator. The debriefing will be taped, and will include the following:

- Completion of a brief post-evaluation questionnaire in which the participants share their opinions on the site's usability, appearance of pages, and general impressions of the site.
- Participant's overall comments about the evaluation experience.
- Participant's responses to probes from the evaluation monitor about specific errors or problems encountered during the evaluation.
- Post-evaluation interview questions. See the *Post-evaluation interview* section of this document.

The debriefing session allows participants to say whatever they like, which is important if tasks are frustrating. It provides important information about each participant's rationale for performing specific actions, and it allows the collection of subjective preference data about the site.

After the debriefing session, the student evaluator will thank the participants for their efforts and dismiss the participants. Give the participant a small token of appreciation as they leave.

Post-evaluation interview

During the last few minutes of the participant debriefing, the student evaluators will ask participants a few questions about the user interface. Unlike the evaluation, where users are asked to perform tasks, these questions give evaluators more details about what the participants were thinking while they performed certain tasks. Evaluators will record their answers and use the information to further inform design changes.

Question 1: Describe how easy or hard it was for you to navigate around the site?

Question 2: How well do the page and tab titles reflect what you expected to see after you clicked or navigated to them?

Question 3: Did you notice the QuickJumps link on the main University Libraries page? What do you think the purpose of the QuickJumps is?

Post-test questionnaire

<u>It was easy to find the library hours at this site.</u>				
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
<u>The page titles accurately reflect the type of information on the page.</u>				
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
<u>It is easy to get lost on this site.</u>				
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
<u>This site does not use jargon or unusual terms.</u>				
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
<u>I can easily locate the resources and information I need.</u>				
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
<u>The site layout makes it easy to use.</u>				
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

Data collection

The student evaluators will collect data through the use of a “thinking aloud” protocol.

The evaluators will collect the following:

1. The average amount of time to complete each task.
2. The percentage of participants who finished each task successfully.
3. The number of cases in which the participants were not able to complete a task because they received an error from which they couldn’t recover.
4. The number of times the participant used the help line to solve a problem.
5. The number of positive or critical statements about the site, or the experience using the site.
6. The number and types of errors, including:
 - Observations and comments.* The evaluation monitor notes when participants have difficulty, when unusual behavior occurs, or when a cause of error becomes obvious.
 - Non-critical error.* A participant makes a mistake but is able to recover during the task in the allotted time.
 - Critical error.* A participant makes a mistake and is unable to recover during the task in the allotted time.
7. The number of indications of frustration or joy from the participant.
8. The number of subjective opinions of the usability and aesthetics of the site that the participants expressed.
9. Eye tracker data. The amount of time participants spent looking at different areas of each page they viewed.

Deliverables

At the completion of the usability evaluation, the student evaluators will perform a formal analysis.

Student evaluators will provide a final evaluation report and a highlight tape. These deliverables will detail the significant problems and observations detected during the usability evaluation. They will also provide recommendations to address the findings, and deliver them to the library staff.