POPULATION

The population this study is targeted towards includes people of the age 18 to 45. This age range was specified to encompass a younger and middle-aged population; one believed to benefit and be willing to use technology to plan out when the shows they are interested in air. Furthermore, this population aligns with convenience sampling efforts through word-of-mouth recruitment through college-age participants as well as adults and parents who may also be willing to participate in this study.

Use of this sampling provides quick access to participants and the opportunity to generate a lot of data to test the hypothesis. The consequence of using this population, however, is that it does not allow for conclusions abut the tested hypotheses to be made about populations younger and older than the population recruited. This population range does not include the population of people 65 years of age and older that watch the most television (according to Neilsen data). Future studies with more resources should assess if these tools are something this population would be interested in using.

Participants for this study will be recruited through word-of-mouth. This will be the primary means to recruit family members, friends, and general public in locations in proximity to the primary investigator. To increase the chances of more people participating, the use of electronic recruitment through Facebook will be utilized also. A group on the website allows for students to connect with others in their graduating class that are also members of that group. Members of this group will be contacted to request participation in this study.

HYPOTHESES

This study will assess if using the new television scheduling website is faster and easier to use than the closest alternative that already exists. The goal of creating this new tool is to minimize the amount of cognitive load that users receive so that they may be able to make a simplistic, yet informative schedule for their television show air times quickly and with ease. The two hypotheses being tested are stated below.

Primary hypothesis:

H_{o1}: There is no difference in system usability between www.episodecalendar.com and www.exithere.org/tvschedule.

H_{a1}: System usability ratings of www.exithere.org/tvschedule are better (lower) than using www.episodecalendar.com.

Secondary hypothesis:

H_{o2}: There is no difference in interface quality between creating television schedules using www.episodecalendar.com and www.exithere.org/tvschedule.

H_{a2}: Interface quality ratings of www.exithere.org/tvschedule are better (lower) than using www.episodecalendar.com.

STUDY CONDITIONS

Participants will be part of a single group. Results will be calculated using within-group analysis. Due to the expected small sample size, splitting the participants into a group that uses www.episodecalendar.com and another group using www.exithere.org/tvschedule would not yield particularly valid results due to low statistical power coming from the small sample size comparisons and potential risk of the two groups not having homogenous variance. Because all participants will experience both conditions of the study, there are also risks of practice effects

confounding the results found by this study. Procedural methods will be implemented to attempt to reduce the effects of finding an overestimate of either website's usability and interface ratings.

PARTICIPANT PROCEDURE

Recruitment will occur through word-of-mouth and electronic means via Facebook. Potential participants will be contacted asking for participation given general details about the study and with a copy of the Informed Consent document. To participate in the study, the respondent must acknowledge their consent to participate by signing the bottom of their Informed Consent document.

After recruitment and informed consent is obtained, participants will be given instructions on what to do and what to complete for the first part of the study. Participants will use www.episodecalendar.com first to complete the creation of a television schedule of their choosing. This may be shows that they currently watch, want to watch, or just random shows so that they experience using the interface. The choice is made clear to the participant that they can create whatever television schedule they would like. Upon completion of creating their personalized television schedule, the participant will then complete a 19 question survey on the usability of the website (see metrics).

Participants will be informed that they have completed one part of the study, but there is another part that they will be contacted in a day to complete. After a day has passed, participants will complete another television schedule using www.exithere.org/tvschedule. After they have finished, they will complete the same survey on the usability of the website.

A day in between completing task conditions was used to reduce any practice effects that may occur from using the same tasks in both conditions. An alternative for future studies would be to use two separate, specific task lists that have been proven to reliable capture the same information to ensure systematic experiences in the different interfaces. Unfortunately this could not be obtained prior to designing the current study.

METRICS

To measure usability, a survey from IBM will be given to participants to complete. Lewis (2003) evaluated the Computer System Usability Questionnaire (CSUQ) for its psychometric properties. Factor analysis concluded that an internal reliability rating was very strong, with the coefficient alpha being .93 for the system usability subscale and .89 for interface quality. In addition, the validity of the survey was confirmed through correlation of the overall score, to another measure of usability created by IBM. Overall, the total scores had a correlation of $r=.80$ and significance of $p=.0001$. These correlations were calculated for the Post-Study System Usability Questionnaire (PSSUQ) which is almost identical to the CSUQ, except for altering the wording of some questions to ease of use regarding doing work instead of completing pre-selected tasks. Furthermore, analysis of variance demonstrated that the overall score on the PSSUQ was able to identify differences in controlled test groups at a statistically significant level, $p=.02$. Use of the CSUQ in this study was determined advantageous due to its strength and ability to increase the robustness of the quantitative data and statistical conclusions due to anticipated small sample size.

A copy of the consent form was attached to the IRB for approval and the CSUQ is attached in the appendix of this document.

References

Lewis, J. R., (1993). IBM computer usability satisfaction questionnaires: psychometric evaluation and instructions for use (Technical report No. 54.786). Boca Raton: Human Factors Group.

APPENDIX

Survey from Lewis (1993).

1.	Overall, I am satisfied with how easy it is to use the system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

2.	It was simple to use this system							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

3.	I could effectively complete the task and scenarios using this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

4.	I am able to complete my work quickly using this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

5.	I am able to efficiently complete my work using this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

6.	I feel comfortable using this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

7.	It was easy to learn to use this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

8.	I believe I became productive quickly using this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

9.	The system gives error messages that clearly tell me how to fix problems.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

10.	Whenever I make a mistake using the system, I recover easily and quickly.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

11.	The information (such as on-line help, on-screen messages and other documentation) provided with this system is clear.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

12.	It is easy to find the information I need.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

13.	The information provided within the system is easy to understand.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

14.	The information is effective in helping me complete my work.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

15.	The organization of information on the system screens is clear.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

16.	The interface of this system is pleasant.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

17.	I like using the interface of this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

18.	This system has all the functions and capabilities I expect it to have.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

19.	Overall, I am satisfied with this system.							
Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
Comments								

UFIRB 02 – Social & Behavioral Research

Protocol Submission Form

This form must be typed. Send this form and the supporting documents to IRB02, PO Box 112250, Gainesville, FL 32611. Should you have questions about completing this form, call 352-392-0433.

Title of Protocol:	**Comparison of TV Scheduling Usability**		
Principal Investigator:	**Lauren Gray**		**UFID #: XXXX-XXXX**
Degree / Title:	**Undergraduate Student**	**Mailing Address:** (If on campus include PO Box address): PO Box 116125 Gainesville, FL 32611-6120	**laurenng@ufl.edu**
Department:	**Computer and Information Science and Engineering**		**Telephone #:** **850-865-2258**
Co-Investigator(s):		**UFID#:**	**Email:**
Supervisor *(If PI is student)*:	**Benjamin Lok**	**UFID#: XXXX-XXXX**	
Degree / Title:	Ph.D. / Associate Professor	**Mailing Address:** (If on campus include PO Box address): CSE Building 342 P.O.Box 116125 Gainesville, FL 32611-6120	**Email :** lok@cise.ufl.edu
Department:	**Computer and Information Science and Engineering**		**Telephone #:** **XXX-XXX-XXXX**
Date of Proposed Research:	**3/29/13 – 4/16/13**		
Source of Funding *(A copy of the grant proposal must be submitted with this protocol if funding is involved):*	None		

Scientific Purpose of the Study:

The purpose of this study is to compare the use of TV scheduling websites to identify preference, usability, and interface quality differences.

Describe the Research Methodology in Non-Technical Language: ***(Explain what will be done with or to the research participant.)***

Study Procedure

The study procedure consists of six stages:

1. The participant will review the informed consent document.
2. The participant will create a TV schedule using www.episodecalendar.com and complete a survey on their experiences with the system.
3. The participant will create a TV schedule using www.exithere.org/tvschedule and complete a survey on their experiences with the system.

Data Collected

- Responses to the Computer System Usability Questionnaire (CSUQ)

Security

- All collected data will be stored on an encrypted container on a personal computer.

Describe Potential Benefits:

The potential benefits to the participant are:

- Exposure to new tools to use for organizing and planning watching TV shows.

Describe Potential Risks: (*If risk of physical, psychological or economic harm may be involved, describe the steps taken to protect participant.)*

The risks of harm to a participant are not greater than those ordinarily encountered in TV scheduling. The participant has a small risk for divulging personal information on episodecalendar's website. To protect this, participants are informed of using 10minutemail's service to sign up for an account to use for the study to protect their personal email address. Participants who chose to use their personal email address are protected by episodecalendar's privacy policy. Participants risk increased TV watching time due to knowing when their shows air, which may affect their productivity in work or school.

Describe How Participant(s) Will Be Recruited:

Participants will be recruited through word-of-mouth and through electronic communication via Facebook.

Maximum Number of Participants (to be approached with consent)	**30**	**Age Range of Participants:**	**18-45**	**Amount of Compensation/ course credit:**	**0**

Describe the Informed Consent Process. (Attach a Copy of the Informed Consent Document. See http://irb.ufl.edu/irb02/samples.html for examples of consent.)

Participants will view the Informed Consent document (attached) when recruited for participation. When recruited via word-of-mouth, the potential participant will view the document when asked. During electronic recruitment via Facebook, a link to the Informed Consent document will be provided. Participants will have to return a signed copy of the Informed Consent document to the investigator before continuing in the study. The document can be signed and emailed for participants recruited online.

(SIGNATURE SECTION)		
Principal Investigator(s) Signature:		**Date:**
Co-Investigator(s) Signature(s):		**Date:**
Supervisor's Signature (if PI is a student):		**Date:**
Department Chair Signature:		**Date:**

Informed Consent

Protocol Title: Comparison of TV Scheduling Usability

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research Study:

The purpose of this study is to compare the use of TV scheduling websites to identify preference, usability, and interface quality differences.

What you will be asked to do in the study:

You will be asked to create TV schedules using two different websites. You will be asked to complete a 19 question survey for each of these websites.

Time Required:

30 Minutes

Risks and Benefits:

The risks of harm to you by participating in this experiment are minimal, and no different than those ordinarily encountered in planning a TV schedule. The potential benefits to you are additional tools at your disposal to organize and plan your TV schedule.

Compensation:

You will not be compensated for participation in this study.

Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your information will be assigned a code number. The list connecting your name to this number will be kept in a locked file. When the study is completed and the data have been analyzed, the list will be destroyed. Your name will not be used in any report.

Voluntary participation:

Your participation is completely voluntary. There is no penalty for not participating.

Right to withdraw from study:

You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:

Principal Investigator: Lauren Gray, Undergraduate Student, Department of Computer and Information Science and Engineering, laurenng@ufl.edu

Supervisor: Benjamin Lok, Ph.D, Department of Computer and Information Science and Engineering, CSE Rm 342 XXX-XXX-XXXX

Whom to contact about your rights as a research participant in this study:

UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; ph 392-0433

Agreement:
If you have read the information described above and would like to participate, please check the "I accept" line, indicating that you voluntarily agree to participate in this study and sign below. You may print these pages for your records.

_____ I accept and agree to participate in this study.

_____I do not want to participate in this study.

Signature: _____ Date:_____