

The ABC's Usability Plan

Usability Test Plan

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November 20 & 27, 2012

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III. INTRODUCTION

Purpose

The usability of a website is essential (Nielsen). If there is any lack of information or difficulty with the navigation of the site, the user leaves the site (Nielsen). In order to increase a website's user base, to prevent users from leaving the site, and to improve page design while increasing utility, usability testing should be done prior to webpage implementation (Nielsen). This document will outline a plan for performing a usability test on the San Antonio College (SAC) website; our plan will specifically test the compatibility of the SAC website with mobile devices.

This usability testing will help to pinpoint areas of improvement for the SAC website, and show what areas have no need of change. Our group hopes to help find ways to improve the SAC website for mobile devices through usability testing.

Benefits of Usability Testing

Usability testing is beneficial for any website. The testing will supply information regarding difficulties mobile device users may experience while using the website. This information will assist the San Antonio College's Public Information Office in updating and improving the SAC website.

The benefits of usability testing include:

- Decrease in support costs (Blast)
- Decrease in user frustration (Nielsen)
- Prevention of web page re-design (IT Strategists, Blast)
- Increase of user base (Blast)
- Increase in the accessibility of information (Nielsen)

The overall benefit of usability testing is that it helps devise solutions to potential problems before they arise (Bogaards).

We are performing this usability test on mobile devices because, for many people, these devices have replaced computers. Also, students as well as faculty will find it more convenient to access the SAC website through their mobile devices when they are away from a computer or cannot find a free computer to work on while on campus. Our group feels that both the SAC website and SAC students could benefit from our usability testing because it will help reveal any problems with the site's design for mobile use. By improving the accessibility of the site for mobile users, we hope the following benefits will occur:

- Solve compatibility issues between mobile devices and the SAC website

Comment [LI2]: Nice tight purpose statement.

Don't forget to include the purpose of this document.

This document will present our team's plan for conducting a usability test upon the SAC Website.

Comment [LI3]: Maybe move this entire section up so it comes after your first sentence.

Comment [LI4]: Maybe mention the widespread use of mobile devices for even SAC students

Comment [LI5]: Maybe that word "any" is promising too much.

Comment [LI6]: Good benefits section.

- Expand the SAC user base
- Keep more people informed about San Antonio College while keeping up with the technological standards of modern students

Students, the families of students, prospective students, and SAC faculty will benefit from any positive changes that may occur due to usability testing.

IV. PROBLEM STATEMENT/TEST OBJECTIVES

Background

In 2010, Alamo Colleges began the initiative to create one website encompassing all of the college sites in the Alamo District. This new website would provide a consistent look and easier navigation between all of the Alamo District websites. The committee supervising this change decided to use IT Strategists' [Ektron](#) Web Content Management System (CMS) to implement the new District website and individual college web pages. IT Strategists' Ektron CMS provided a new way to build these sites, while integrating them under one Alamo District website. However, San Antonio College provided no usability testing on its new website, and the project went live in the Fall Semester of 2011.

Due to lack of usability testing done on SAC's website, there is potential for improvement in both the site's usability and design. If people are leaving the website due to trouble with usability, that person is losing valuable information provided by the San Antonio College website. Previous usability testing may have shown compatibility and user interface issues that have arisen between mobile devices and the SAC website since its implementation in 2011. Data gathered from usability testing generally provides better information about a new website or webpage implementation.

Comment [Ili7]: According to...?
It would be nice to reference Nielson

Problem

Having a website that is easily accessible to mobile devices is essential. Most people have a type of hand held mobile device that they will use while away from a computer to access important information. Because most websites offer mobile friendly applications or websites, people expect to be able to find information fast and easy. In order to idetermine if the SAC website was mobile device friendly, our group collected anecdotal evidence regarding the use and compatibility of mobile devices with the SAC website through unofficial interviews with other students and the use of our own mobile devices. After analyzing this anecdotal evidence, we found a few problems with the SAC website that students would like to see fixed:

- The small screen size of many mobile devices makes it impossible to read or see anything on the website without zooming in and panning.
 - This would not be an issue if the website is mobile device friendly.
- Some phones do not have the option to zoom in to see small pictures or print.
 - A mobile application generally fits to the screen of the individual device making webpage navigation simple.
- Scrolling to view words and pictures can become difficult
- Phones that allow for one finger scrolling (use one's finger to push the images on screen from side to side) can cause the user to accidentally push a link and get re-directed to a new website.

Comment [Ili8]: This sounds like the results of informal usability testing. The BEST results at this point are to
a) confirm that a problem exists
b) use this informal task analysis to help design your usability test

Objectives

Our objective is to collect data through usability testing to present to the SAC Public Relations Office and Webmasters. Providing this information to the PR Office and Webmasters will give them useful data regarding SAC's site and its compatibility with some common mobile devices. Without mobile device support, the SAC website is outdated though it is only one year old. Most websites now have some form of mobile application and support (including the main Alamo District website). As the use of mobile devices becomes a more common way of viewing the Internet, the SAC website should continue to advance in order to improve its support of mobile devices and remain up to date. We hope our data will help the SAC website achieve this lofty goal.

We hope to document data that will help improve the SAC website and its compatibility with mobile devices. We also hope to achieve acknowledgement that usability testing is a vital part of website implementation and should be a required part of any further website integration or initiation for the San Antonio College site.

V. USER PROFILE

Description of Testers

Our testers will consist of Current San Antonio College students with:

- Apple iPhone
- Apple iPod
- Android phones
- Windows Phone
- Blackberry Smartphone.

Most of our testers will have a basic knowledge of the San Antonio College information accessed through the SAC website. We will, however, accept testers who have little or no experience with the SAC website as we feel it may give better insight to how the site affects users.

People want to find information that is useful specifically to them when they are away from a computer. Most students want to find a way to log into ACES from their smart phones and discover they cannot. The students who want to check the SAC website are there to find registration and drop dates; final exam schedules; and homework due dates found on their e-syllabus or class events. As of now, the SAC website makes it hard to find specific information. People currently have to remember the exact path they used to find a certain item in order to access that same item in the future. Many students admit to only using the SAC website with their mobile phone (if at all) as an act of desperation due to some ambiguous piece of information given to them by an instructor or a rumor heard from another student.

Comment [Ili9]: This section seems like it would fit better in the Problem section. It fits more with what I was looking for as the results of your informal task analysis.

Task Based Information

During informal interviews conducted by our team, we found that most of the people interviewed used the SAC website to access ACES or look at calendars for payment deadlines and for registration dates. All students and prospective students wanted quick information about San Antonio College. They wanted to know what the calendar says, or what deadlines are coming up, scholarship information, and what sets SAC apart from the other schools in the district. Tasks tend to vary from student to student but the most common answers are listed below:

- To look at the financial aid information (which re-directs them from the SAC website to the Alamo district website)
- To check the SAC Calendar of events.
- To find the e-syllabus
- To look at the admissions process
- To check the requirements for transferring
- Scholarship information
- Course catalog
- Log into ACES

VI. TESTING METHODOLOGY

Overview

For our usability test, we will gather as many as five student volunteers who use mobile devices to access the internet on a regular basis. By testing no more than five students, we will avoid important information being diluted due to the redundancy this type of testing tends to display (Nielson). According to Nielson's Usability 101, "Elaborate usability tests are a waste of resources. The best results come from testing no more than 5 users and running as many small tests as you can afford" (Nielson). There are only so many paths a user can take while visiting a given website, the more people being tested, the more obscured important information will become as it will be buried under the large amount of repetitive data accumulated.

The testers will be asked to access the SAC website from their personal mobile phones. Our team will observe the tester as they are asked to perform simple tasks on the SAC website. These observations will be measured using the Likert scale and Usability Metrics (Nielson). Usability Metrics are measured observations based on user's satisfaction, success rate on the site, time spent on the site, and error ratings. The Likert scale we will be using will be rated from one to four, one meaning easy to use and satisfactory, and four meaning the tester was so frustrated with the site that they could not complete the requested tasks. These results will be given in the analytical report addressed to SAC's Public Relations Officer Julie Cooper and Webmaster Mark Goodspeed.

Before our testing begins, we will ask some preliminary questions listed below in the script portion of this document. After answering the entry questions, our testers will be asked to perform simple tasks involving the use of the SAC website. The tasks are based off the usability testing script of Group One because they are providing data as a base line measurement for our usability testing. Our team will observe and listen to each tester, allowing them to "Think Aloud", while keeping track of how long it takes them to find the requested information. The "Thinking Aloud" method allows users to say what is on their mind. This form of testing will enable us to understand what the users are experiencing during the testing (Nielson). Once the testing is complete, we will ask our users to answer some exit questions, so that we may attempt to rate their experiences.

Script:

Facilitator: Good morning.

I am (name). I will be the facilitator of this test. Have you ever done usability testing before? It's easy; we are just going to ask you to perform some simple tasks on the SAC website while using your mobile device. I will be sitting next to you to listen to what you have to say, and help you

Comment [Ili10]: This is interesting to use a likert scale yourselves. I usually see it as a survey question measure done by test participants in the post-test questions.

Comment [Ili11]: I'm not sure I would call this metric a likert scale. Learn a bit more about likert and see if it fits.

understand the tasks if you do not understand them. Please remember that we are testing the SAC website's performance, not yours.

We are going to be testing usability issues between the SAC website and your personal mobile device. This test includes answering questions both before and after the test. The actual test will be simple scenarios where you will be asked to do certain tasks on the San Antonio College website. During the test, please feel free to use any method to complete the task or to quit the task all together.

This is (name), the data logger for this test. He will be observing and making note of certain things as you do various tasks on the San Antonio College website.

Observer: My name is (name) and I will be observing this test.

Facilitator:

- Did you remember to bring your mobile device? (If the test participant has forgotten their device, we will either reschedule or may have to turn them away.)
- Does your mobile device have internet capability? (If the answer is "No"--and it shouldn't be-- we will have to reschedule this person to test with the computer usability testers).
- What type of phone/mobile device do you have?
- Does your device have 3G or 4G capabilities?

During the testing, we would like for you to say what you are thinking. This will help us keep track of what you are doing. Tell us out loud your thought process as you perform each task. Do you have any questions about the test?

(The Facilitator will explain anything the tester has questions about.)

To start, we would like you to answer a few pre-test questions. Once you have answered these questions, we will begin our usability test.

- How often do you frequent the SAC website throughout a semester?
- If you visit the SAC website more than two times per semester, how frequently while using a mobile device or while using a computer?
- How well do you think the website is set up?
- Do you find it easy or difficult to navigate the website with your mobile device?
- What do you think makes the site difficult or easy to use on your mobile device?

Begin testing: *see task based questions below for testing*

Task-based questions:

Group One's Scenario: You have just graduated from high school. You think San Antonio College sounds like a good place to start your college education. You have many steps to complete before you are ready for your first day of classes. Here are six tasks you must complete before you are officially a SAC student:

Task #1: You decide that you want to know how much tuition will cost before you enroll for school. Find information on the SAC website about tuition.

Task #2: Next, you feel you might not want to be a firefighter like you told your mom in the third grade, so you try to find the link that offers degree plans.

Task #3: You think you are sure you have found the right degree plan for you, but want to talk to someone about what the degree plan will require from you and how long it will take. Try finding a counselor.

Task #4: Your parents want to take a tour of the campus to make sure their baby is safe while getting a quality education; you don't know your way around the campus. Find SAC's campus map.

Task #5: You have decided on pursuing a major in physical therapy. You want to know about the first class you will take and what it entails. Find the description of the course KINE 1301.

Task #6: Finally, you are enrolled and ready to go to college! Your counselor told you to look up the e-syllabi for your classes to find out what books and materials you will need. Look up Professor Usha Krishnan's General Chemistry I e-syllabus for the spring 2013 semester.

Facilitator: Before we finish the test, I have a few questions I would like you to answer.

- What task did you find the easiest to perform?
- Why do you think it was easy/hard?
- Did you like how the SAC website worked with your mobile device?
- What problems did you experience while on the SAC website?
- What do you think can be done to make the SAC website easier to use on a mobile phone?

Thank you for coming and helping us test the SAC website today, we really appreciate your help! (Everyone shakes hands with the tester.)

VII. TEST ENVIRONMENT/EQUIPMENT

Testing will take place between 11:00am and 12:05pm in Gonzales Hall, Room 203, the SAC Writing Center under the direct supervision of Professor Irvin. Testers will be required to bring their own mobile devices for use during testing.

VIII. TEST MONITORS' ROLES

Facilitator:

- Will engage the tester in the scenarios, keeping them on track and encouraging them to continue with the testing if it gets too frustrating or slow.

Data Logger:

- Will record observations made, focusing on amount of clicks, and time taken for each task.

Test Observers:

- Will observe and record all spoken thoughts and comments the tester has, as well as the obvious frustration level each tester experiences. Also, Observers will use the written data sheet to help keep track of how many clicks and time taken for each task.

IX. EVALUATION MEASURES

[Set up all quotes:](#) "Usability metrics are measured relative to users' performance on a given set of tasks" (Nielsen). We will be collecting data on an excel data sheet, which will calculate the average time for each scenario, along with the average amount of taps, and average frustration level for each tester. The frustration level will be calculated using a Likert scale of 1-4, 1 being the least frustrated and 4 being the most. The data sheet is also capable of calculating the error level based on the amount of back paging the tester does. The speed of each task performed will be compared to a computer timed base line, which will tell us how long -comparatively- each task should take.

The computer base line will be provided by Group One, who will be doing usability testing on the SAC website with computers. Before the testing begins, our group will have a set path in mind for each scenario. The paths or links on the webpage being chosen will help our team to determine when a user is making an error. For instance, it should only take two clicks to find an e-syllabus, but if the user takes a different path, it may take up to ten clicks. That would be a user error, and may or may not reflect on the design of the individual webpage (in this

caseSAC). Each path our group creates will be the most reasonable and direct route for each scenario, and contain the least amount of taps possible to finish the task.

X. CONCLUSION

"Usability studies are proven to decrease support costs, increase user satisfaction, and save on development and redesign efforts" (Blast). Mobile devices are being used more often to access the Internet because of their portability and convenience. Using a mobile device while visiting the SAC website is possible, but it is difficult since the website does not provide a mobile layout.

Comment [Ili12]: Again, always integrate quotes into your text. Never drop them in like this.

Our group hopes to provide relative data that will assist the San Antonio College's Webmasters and Public Relations Office to improve the SAC website. The information provided will involve compatibility of the SAC website with mobile devices. During the process of researching for our initial proposal for usability testing submitted on October 30th, we found that the requirement to make the SAC website compatible with mobile devices revolves around the webmasters. According to Ektron, the webmasters would need to create a template, already available through Ektron, specifically for mobile devices (IT Strategists).

XI. APPENDIX

Data Logging Sheets

To start, we would like you to answer a few pre-test questions. Once you have answered these questions, we will begin our usability test.

- How often do you frequent the SAC website throughout a semester?

1: Often 2: Somewhat often 3: Hardly ever 4: Never

- Do you visit the website more frequently while using a mobile device or while using a computer?

Mobile Device: 1: Often 2: Somewhat often 3: Hardly ever 4: Never

Computer: 1: Often 2: Somewhat often 3: Hardly ever 4: Never

- How well do you think the website is set up?

1: Very good 2: Good 3: Somewhat bad 4: Terrible

- Do you find it easy or difficult to navigate the website with your mobile device?

1: Very easy 2: Easy 3: Somewhat difficult 4: Difficult

- What makes the site easy to use on your mobile device?

- What are some aspects of the SAC website that make it difficult to use on your mobile device?

Begin testing: *see task based questions below for testing*

Task-based questions:

Group One's Scenario: You have just graduated from high school. You think San Antonio College sounds like a good place to start your college education. You have many steps to complete before you are ready for your first day of classes. Here are five tasks you must complete before you are officially a SAC student:

Task #1: You decide that you want to know how much tuition will cost before you enroll for school. Find information on the SAC website about tuition.

Task #2: Next, you feel you might not want to be a firefighter like you told your mom in the third grade, so you try to find the link that offers degree plans.

Task #3: You think you are sure you have found the right degree plan for you, but want to talk to someone about what the degree plan will require from you and how long it will take. Try finding a counselor.

Task #4: Your parents want to take a tour of the campus to make sure their baby is safe while getting a quality education; you don't know how to get to the SAC campus. Find driving directions to the SAC campus.

Task #5: You have decided on pursuing a major in physical therapy. You want to know about the first class you will take and what it entails. Find the description of the course KINE 301.

Task #6: Finally, you are enrolled and ready to go to college! Your counselor told you to look up the e-syllabi for your classes to find out what books and materials you will need. Look up Professor L. Irvin's Technical Writing e-syllabus for the Spring 2013 semester.

Facilitator: Before we finish the test, I have a few questions I would like you to answer.

- What task did you find the easiest to perform?

- Why do you think it was easy/hard?

- How easy or hard do you think this was over all?

1: Very easy 2:Somewhat easy 3: Somewhat hard 4: Hard

- Did you like how the SAC website worked with your mobile device?

- What problems did you experience while on the SAC website?

- What do you think can be done to make the SAC website easier to use on a mobile phone?

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Participant	Total Time (s)	# of Clicks	# of Backspaces	Complaints	Path deviation	Succes Rate
Connor 3g						
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						
Task 6						
Totals	0	0	0	0	0	0
Geometric mean	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Participant	Total Time (s)	# of Clicks	# of Backspaces	Complaints	Path deviation	Succes Rate
Lisa 3g/iPhone 4						
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						
Task 6						
Totals	0	0	0	0	0	0
Geometric mean	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Participant	Total Time (s)	# of Clicks	# of Backspaces	Complaints	Path deviation	Succes Rate
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						
Task 6						
Totals	0	0	0	0	0	0
Geometric mean	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Participant	Total Time (s)	# of Clicks	# of Backspaces	Complaints	Path deviation	Succes Rate
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						
Task 6						
Totals	0	0	0	0	0	0
Geometric mean	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Participant	Total Time (s)	# of Clicks	# of Backspaces	Complaints	Path deviation	Succes Rate
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						
Task 6						
Totals	0	0	0	0	0	0
Geometric mean	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Comment [Ili13]: Interesting items you have decided to measure. I like "complaints." It is a bit squishy, but it will be interesting to analyze the results. I would definitely consider the number of complaints as a qualitative measure, seeking to interpret what the number means.

Works Cited

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Comments:

ABCs Group,

Very good work on this proposal. The format and the readability are both very good. For the most part, you achieve a "plain language" style that is easy to follow. The one area that I had some questions about is how you are using the task analysis results within the test plan. As I mentioned, I would narrow your discussion and use of the task analysis to
--how it informed you about the problem with the website
--how it helped you design your test plan

I also don't think you can legitimately call your four point scale a "Likert Scale." Likert scales use carefully calibrated language so that the gap between one term and the next term equates to an integer. This enables taking verbal responses and quantifying them for statistical analysis. Hence, you have to use one of the established Likert Scales.

Good work team!

LI