Seattle Tilth Usability Test

Project Proposal for Website Redesign Research
For the Seattle Tilth Website
Cameron Kunz, Michelle Szwedo, Jeff Reynolds
ITC 298 UX Research Methods
URL: seattletilth.org

Seattle Tilth is a non-profit organization that provides the Seattle area with gardening education. Seattle Tilth offers classes for any level of ability, anything from a beginner to expert will find a class that will fit their needs. Seattle Tilth provides the underprivileged with programs that can give them the training needed to simply grow some of their own food or run a farm business. Seattle Tilth's mission is to inspire and educate people to safeguard natural resources, while building an equitable and sustainable local food system.

We are proposing the testing of the Seattle Tilth website by the Seattle Tilth analysis team. The first two tests will determine the existing Seattle Tilth website's positioning within its competitive environment, and the degree to which the site conforms current standards of design. Information derived from these examinations will serve as a guide to develop designs with improved usability. Two subsequent tests will gauge how usable the site's terminology and overall design is when evaluated by volunteer test participants.

Users

User Type	Description	Tasks and Goals
Avid Gardener	The avid gardener is looking for information, classes and events about gardening. Topics of interest are growing vegetables, garden locations, composting and pest control.	Find information about classes offered, class locations, time, fees. Users may want to use the "garden hotline" to find specific gardening information and about what language interpretation is available for this service. Look for information about membership benefits and fees. Purchase books or materials in online store.
Food Enthusiast	The food enthusiast is looking for the best practices in raising urban livestock, cooking, beekeeping, foraging and preserving food	Find information about classes offered, fees. Locations. Look to blog for past posts on theses subjects. Look for information about membership benefits and fees. Purchase books or materials in online store. Find CSA information.
Hopeful Teens	Hopeful teens are looking for education, training and guidance in learning about food production, small business management, nutrition, sales and public speaking through Seattle Youth Garden Works. Also teens looking for after school classes about cooking, nutrition and food production	Find information about programs, eligibility, applications, expectations, duration. Find class listing with fees, locations/directions, time and dates. Find information about volunteering
Eager Volunteer	Looking to share skills and learn about conservation and food systems.	Find information about volunteer positions, requirements, applications.
Educators	Interested in leading classes or participating in community outreach programs.	Find information about employment opportunities. Find out what outreach programs are available and how to apply or sign up. Where are classes located and teaching requirements and training.

Research Methodologies

The Seattle Tilth website will be tested with four methodologies: a site competitive analysis, a best practices or heuristic review, card sorting, and a usability test. Multiple test methods are deemed necessary to provide all the information needed to proceed to an effective website redesign.

The first two tests will be conducted internally by the analysis team. The emphasis here is the existing site. The team will examine the website's design and market environment and its adherence to website best practices. These efforts will initially attempt to identify any problems with the existing site's focus and its design integrity. Design solutions will be developed from conclusions derived from results of the first tests.

The second two tests will be conducted externally. They will take those potential design solutions and exposes them to the light of day. This testing subjects the new design elements to the impartial scrutiny of volunteer test participants.

The results of volunteer testing often reveal unexpected outcomes. In this "no wrong answers" testing environment, all participant responses are considered valuable information. This exposure to fresh viewers frequently exposes design assumptions that the test subjects may not share or understand. Results of the group tests will be examined to determine whether the design ideas need more development.

Website Competitive Analysis

The purpose of a competitive analysis is to determine what location in the web design landscape Seattle Tilth and its website occupy. Undertaking a study of the websites of the entire market gives the analysts a more detailed and comprehensive insight into common perceptions and assumptions within that market.

This test will be conducted internally and will require no special tools or equipment. A checklist of relevant elements for consideration is developed by which all sites are measured. Special care is taken to choose the elements in the checklist for their efficacy in assessing the competitive environment.

There are quite a few elements to be considered in this study. Initially each site is evaluated as to whether it is providing an experience that is consistent with its core message and goals and whether it is conveying them clearly to the user. Is the site's information communicated clearly and in an organized, understandable fashion? Is information not immediately apparent nevertheless easily obtained? Conversely, is there extraneous material not pertinent to that message?

Possibly the most important assessment is the way that the competitors differentiate themselves from their peers in their market segment. This evolves into an effective metric of the threshold requirements of participation the market. This metric is then turned around to measure the performance of the Seattle Tilth website itself.

As knowledge of the particular market grows, some elements used in the evaluations may be discarded in favor of others whose importance has become evident during the process.

Following this more message-oriented analysis, the test sites' features are evaluated with a focus narrowed toward the site's usability. The nature of the sites' visual design is considered. Does the design welcome the user and encourage them to stay on the site and dig deeper?

Special design features or characteristics are noted. Particularly useful or obstructive features and their functionality are also taken into account. The way graphic and photographic elements are employed is evaluated. Clarity of terminology is examined. In many ways, this part of the competitive evaluation provides valuable information for the later heuristic review and usability testing.

Once the evaluations are complete the data is compiled and a matrix is created to record these features in a fashion that illustrates the strengths and shortcomings of each site. Other charting formats may be used to further demonstrate the comparisons. This information used in a competitive analysis report. It is also reviewed during the design process much like user profiles and scenarios are, as a way to keep the design team focused and on the prescribed path.

Design Best Practices (Heuristic) Review

The best practices review seeks to evaluate the Seattle Tilth site against establish usability principles. It is not intended as a substitute for usability testing which is a

more intuitive and kinetic process and requires volunteer participants. Strictly defined, heuristics is the employment of simple standards testing to quickly obtain information about the site studied.

There are quite a few heuristic elements to consider. As developed by Jakob Nielsen they include:

Visibility of system status: The user should be aware of where they are, and what is happening on the site at all times.

Site vs. real-world conformity: The site should speak to the user in the user's own language. If it is a specialized environment, then the site should employ that environment's terminology, logic, and concepts. For general interest sites, real-world logical conventions should prevail.

User control and freedom: Users should be able to explore the site without any undue consequences. Exploring an unfruitful path should be remedied with a clear and simple way to exit and return.

Consistency in terminology: Following conventions for terminology will prevent confusion in selection. Cute, overly clever, or idiosyncratic terms for navigation and groupings should be avoided.

Recognition over recall: Make choices, features, and actions clearly visible so as to avoid the necessity to memorize the website environment. The user should not be required to memorize the site's layout, features, or pathways.

Minimal aesthetic design: Information in navigation, categories and operations should be the minimum required to complete an operation. They should be concise and clear to the novice.

Error prevention: Awareness and anticipation of user patterns in design can prevent errors. Error checking is critical after design. If conditions lead to common errors, the user should be made aware of any consequences, much like warning them that a file saved to that name will overwrite another file.

Error recognition: It should be evident when an error has occurred. Error messages should be descriptive, clear and in plain English and should be without jargon. Error codes may be included but not as a substitute for clarity of explanation. A corrective solution should always be provided.

Help and documentation: A site should be able to be used without documentation. However, any help system provided should be easily searchable, crafted specifically for the user, concise, and provide simple steps or remedies.

This test will be performed internally and will require no special tools or equipment. The analysis team will assess the site's performance against all these and any other relevant criteria and rate the site accordingly, making recommendations for improved conformity to each principle considered.

Card Sorting

Card sorting is a method where the names of all the topics and categories of information are written on cards. A group of test subjects then organize the cards in groups or patterns that make logical sense to them. Care is taken to ensure that the test subjects conform to the user personas as closely as possible. This ensures that the sorting of the cards is relevant to the mindset of the end users. Test subjects may also be employed to label the groupings they create.

The point of card sorting is to establish an information architecture that reflects that user mindset. Their logical grouping will be in line with the user's expectations of where information should reside. It reveals to the analysis team any informational hierarchies that may exist in the environment the website occupies that they are not aware of. Card sorting also tends to expose any design assumptions that the design team may be employing. Test findings are analyzed and serve as a guide to which terms act as navigational markers and category labels in the final design.

The card sorting will be performed primarily in an open format. The open format allows test subjects to group cards in a fashion that makes sense to them and then to create names for the individual groups. Closed card sorting uses predefined groupings and the test subjects arrange topic cards within the given groups. If time permits, this format may be used to further test navigational and category terms derived from the first card sort tests.

Other than the initial instructions to group the cards in a logical order, no further instructions are given to the test subject. Silence is maintained by testing team to ensure that there is no team influence on the response of the subject.

For this test the analysis team will need to acquire a testing room and find volunteer test participants. As a testing venue, the team will use a classroom at Seattle Central College. Due to budget constraints, the test volunteer pool will consist of students of the ITC298 UX Research Methods class who are not members of the Seattle Tilth team. This should give us a pool of around nine test subjects. If the team feels the need for more test participants, friends or family members will be asked to participate in the test as well.

Test equipment will mainly consist of the cards representing terms derived from the proposed Seattle Tilth design. Efforts will be made to record video of the test sessions on a smartphone, and an audio recording device as a backup. Signed audio and video recording releases will be required from each test participant.

Test observers will be present and visible to the test subject. Efforts will be made to record video of the test process with a smart phone or camera.

Usability Testing

Usability testing allows the analysis team to identify difficulties or problems before they become coded into the site. Test subjects aligned with the user personas are asked to complete a few tasks common to users of the site. The team seeks to discover if the subjects can complete the tasks and how long it takes. The user

performance is assessed to see if it is in line with the site's usability goals. Any changes required to improve the user's performance can be identified. Test participants are also polled as to their satisfaction with their completion of the tasks and with the site in general.

The methodology employed in the usability testing will be paper prototyping. This method uses sheets of paper with drawings or wireframes of website pages on sheets of paper in place of the actual site.

The test subject is usually presented with a sheet representing the site's home page and proceeds from that point. Some tests may begin at subsequent pages. Verbally, and with a pencil or their finger, the participant indicates where they wish to go by touching an area on the sheet corresponding with a button or some other feature that implies navigation to them.

The test monitor or other test person then covers the first sheet with one that represents the page requested and the test subject proceeds to the next stage of the test. This process is repeated until the task is completed. If the task is not completed, the monitor may provide limited guidance to help the subject or terminate the test.

The testing scope and purpose need to be carefully considered to ensure the results shed light on the issues being evaluated. Testing tasks need to be designed to emulate typical user paths or patterns. Each of the user paths need to be identified and laid out in logical steps in order to guide the test participant through

the process. Special attention should be exercised to devise tests that identify potential problem pathways.

For this test the analysis team will need to acquire a testing room and find volunteer test participants. A classroom at Seattle Central College will again serve as a test venue. The same pool of nine fellow students will serve as test volunteers. As with the previous test, adding friends and family to the test pool will be explored as an option.

Test equipment will mainly consist of the pages representing web pages from the proposed Seattle Tilth design. Efforts will be made to record video of the test sessions on a smartphone, and an audio recording device as a backup. Signed audio and video recording releases will be required from each test participant.

During the test procedure a test monitor is employed to guide the test subject during the process. The participant will be informed of the tasks either verbally or with an instruction sheet and then will be observed as they proceed. If conditions permit, a page turner will be present. If not, the monitor will perform this function. The monitor can guide the participant during the test but should take care never to influence choices. Test observers, if present, may be visible to the subject or obscured by a barrier of some sort. If observers are not present, they will review recordings of the testing procedures at a later time.