

Usability Evaluation Report

For the Evaluation Checklists Project website:
<http://www.wmich.edu/evalctr/checklists/>

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Purpose of Study

The purpose of this usability evaluation study was to assess the design of the website for the *Evaluation Checklists Project*, created by The Evaluation Center at Western Michigan University, and to identify strengths and areas for improvement. In particular, the usability attributes of content clarity and visual design of the website were considered.

Participants

A total of seven participants engaged in usability tests as part of this usability evaluation project. These individuals were recruited based on their interest, knowledge and experience in the field of evaluation, and all participants have engaged in at least one evaluation project during the previous 12 months. Data collection were suspended after seven participants had completed usability tests because redundancy of data was reached.

Subject	M/F	Evaluation Experience (yrs)
1	F	1
2	F	4
3	F	8
4	F	15
5	M	2
6	M	5
7	M	9

Method

The method for the study included the following elements:

- Usability test was constructed to address key features of the Evaluation Checklists Project website;
- Usability test instrument was pilot tested with one participant and revised prior to use with seven evaluators;
- Usability test method involved authentic users and authentic tasks (Dumas and Redish 1993);
- Sessions were conducted during a two week period from September 25 to October 5, 2002;
- Usability test sessions averaged approximately 45 minutes and ranged from 35 minutes to 1 hour;
- Participants were asked to perform a *think aloud protocol* (Ericsson and Simon 1993) in which they described their thoughts as they completed each task;
- Empirical data was recorded by note-taking and in some cases audio-taping;
- Data collection was suspended when redundancy of data was reached;
- Data analysis involved the identification of patterns of usage and common themes identified by test participants.

Results and Recommendations

Observation	Interpretation	Recommendation
<i>Content of Website</i>		
All users expressed the view that the checklists available from the website are helpful, useful and important to think about during evaluation.	The checklists are valuable and are the main strength of the website.	1. Emphasize checklists as the main feature of the website.
All users expressed respect for the checklist contributors.	Checklists contributed by key authors in the field of evaluation are considered valuable resources by evaluators.	2. Continue to draw on key authors in the field of evaluation to create checklists in order to build a respected repository of checklists at the website.
Most users expressed appreciation for the range of topics addressed by the checklists.	Breadth of checklist topics is perceived as valuable to evaluators.	3. Continue to add to the resources available in the checklist repository.
<p>Most users selected checklists that addressed general evaluation activities as “most important.” Most users selected checklists that addressed specific types of evaluation as the “least important.”</p> <p>Two users working in similar areas selected the checklist for technology integration as most important.</p>	<p>Checklists that address general activities of evaluation are perceived as more valuable by the majority of users because they deal with common aspects of the evaluation process.</p> <p>Checklists that address specific types of evaluation are perceived as valuable only by a minority of users who work in these specific areas of evaluation.</p>	<p>4. When adding checklists, emphasize general evaluation activities that would be completed by all evaluators rather than specific types of evaluation (duties of a teacher, technology integration) that may not be the focus of many evaluators.</p> <p>5. Two additional checklist topics that were requested by users were “What to look for in an evaluator” and “How to set a budget for an evaluation”.</p>

<i>Observation</i>	<i>Interpretation</i>	<i>Recommendations</i>
<i>Checklist Formats</i>		
<p>All users expressed confusion at the variety of formats available for checklists. Some materials labeled as “checklists” were considered by users to be more appropriately labeled as:</p> <ul style="list-style-type: none"> - rubrics; - position papers; - conference presentations; - reports. <p>(e.g., “Evaluating large scale assessment programs” does not have a checklist anywhere in its contents, and the introduction states “the purpose of this paper”).</p>	<p>Variation in formats does not fit most users general conceptions of what checklists are and why they are used.</p>	<ol style="list-style-type: none"> 6. As far as possible, provide consistent format to be used for all checklists. 7. Use checkboxes/bullet points to focus information on “how to / what to do” as opposed to long detailed narratives or rationales. 8. Background and additional information can be added at the end or as footnotes to the main steps of the checklist.
<p>Every user was required when viewing most checklists to estimate the purpose of a checklist and context of use of the checklist.</p>	<p>All checklists (job aids) should provide a context at the beginning of the document that clearly indicates the intended use by describing at least:</p> <ul style="list-style-type: none"> - purpose of document; - intended users of document; - when to use the document; - how to use the document. 	<ol style="list-style-type: none"> 9. Provide context at the beginning of each checklist that describes: <ul style="list-style-type: none"> - purpose of document; - intended users of document; - when to use the document; - how to use the document.
<p>For checklists that included HTML checkboxes (e.g., “Checklists Development Checklist”), a minority of users clicked on checkbox but were confused by what value was added.</p>	<p>Web interface guidelines dictate that interactions which do not add value to a page should not be designed into the webpage.</p>	<ol style="list-style-type: none"> 10. Use inactive checkboxes or bullet points to replace HTML checkboxes.

<i>Observation</i>	<i>Interpretation</i>	<i>Recommendations</i>
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<i>Checklist Titles</i>		
<p>Multiple users commented the titles “all look the same” and are “not descriptive”.</p> <p>Users report that use of the word “checklist” in titles is unnecessary, adds complexity and creates confusion.</p>	<p>Names of checklists do not clearly communicate the goal of the checklist, and are not intuitive for understanding the purpose of the checklist.</p>	<ol style="list-style-type: none"> 11. Rename checklists to emphasize differences from other checklists (e.g. “evaluation contracts checklist” has 2 of 3 same words as “key evaluation checklist”). 12. Use the most common terminology available in titles (e.g. “client feedback <i>meeting</i>” instead of “client feedback <i>workshop</i>”). 13. When naming checklists, select title by completing the statement “How to...” (e.g. “How to determine legal viability of evaluations” or “How to develop a checklist”). 14. Provide a one-line rollover for the title of the checklist that explains the purpose of the checklist. 15. Delete the word “checklist” from the beginning of titles (e.g. “Checklist for” or “XX Checklist”) because it is clear from the website that the materials provided will be checklists.

<i>Observation</i>	<i>Interpretation</i>	<i>Recommendations</i>
<i>Access to Checklists</i>		
<p>No users perceived a value added feature in the alphabetical ordering of checklists.</p> <p>Some users did not even recognize the use of alphabetical order. In trying to understand the structure of the checklists page, one user stated that she read two titles above and two titles below each checklist to try to determine the context of the checklist.</p>	<p>Alphabetical order is not intuitive or helpful as organizing structure for checklists.</p> <p>A more intuitive structure for organizing checklists is needed.</p>	<p>16. Organize by key activities of the evaluation process or some other natural category of evaluation activities.</p>
<p>When viewing the main page of the Checklists Website, most users made comments such as: “Just give me the checklists”; “Where are the checklists?”; “I want the checklists!”</p>	<p>The checklists are the main attraction of the website and should be viewable from the main page of the website.</p>	<p>17. Make the list of checklists available on the first page of the Checklists website.</p>
<p>Users must scroll through two to three screens of materials to see the complete list of available checklists.</p> <p>Users spent from two to five minutes during initial viewing of the list of checklists to try to determine what checklists were available from the website.</p>	<p>Too much scrolling is required to view the entire list of checklists, which will only get more unwieldy as more checklists are added to the website.</p>	<p>18. Use key evaluation activities as the main categories for grouping checklists and, provide checklist links underneath each category.</p>
<p>Most users initially tried to click on the checklist title to access the checklist. The titles are in boldface type and may be perceived as a link.</p> <p>6 of 7 users used “html” option to look at checklists online.</p>	<p>Web interface design convention is to use titles as links to further information.</p> <p>HTML versions of checklists download faster than PDF versions.</p>	<p>19. Use the title of the checklist as a link to the HTML version of the checklist.</p> <p>20. Make the PDF version of the checklist available next to the title.</p>

<i>Observation</i>	<i>Interpretation</i>	<i>Recommendations</i>
<i>Main Page of Checklists Project Website</i>		
Users can't go directly to the main page of "Checklists Project" website from within a checklist.	This is particularly problematic in multiple page checklists such as the "large scale assessments" checklist because after multiple clicks the user may not be able to use the "back" button to get back to the main page.	21. Make a specific "Checklists Homepage" link that is available from within all checklists.
From the Evaluation Center main page, no user could find the Checklists Project Website on the first try.	Because the title is "Evaluation Checklists Project", all users initially clicked on the "Projects" link of the Evaluation Center webpage to find the checklists homepage, but this link is located under "Support Services" instead of "Projects".	22. Move the link for the Evaluation Checklists Project" to the <i>Projects</i> section of the Evaluation Center Website.
When users typed the term "checklists" into the Checklists search engine, the search results did not list the Checklists main page as one of the top options.	The priority of the search engine should be to return users to the Checklists Project main page.	23. Use metatags to set the search engine to list Checklists Project main page as first priority search results.
Most users said they would not use the search engine provided on the Evaluation Checklists Project main page.	<p>Users cited several reason for lack of use of search engine:</p> <ul style="list-style-type: none"> - wouldn't need it if the checklists were organized in an intuitive way; - words that would be used for search are too specific to guess at; - words in titles that would be used for search are redundant with words in other titles; - too few checklists to need search feature; - use "real" search engine (Google) if searching for something specific. 	24. Keep search engine but minimize it's presence by moving it to the bottom of the page or away from the prime real estate of the page.

<i>Observation</i>	<i>Interpretation</i>	<i>Recommendations</i>
Some users expressed lack of familiarity with “MTS Project Pages” when viewing choices for search options.	Though the Checklists might be designed specifically for MTS workshop participants, the reach of the webpage is much broader and the vast majority of users are not familiar with the MTS project.	25. Delete option to search MTS Project Pages.
All users stated that the use of the brown sidebar to the left of the main page detracted from the “checklists” link and made it unclear as to what was the most important information on the page.	The articles listed in the sidebar were perceived as interesting background information but not the main focus of the website.	26. Minimize the prominence of the articles listed in the sidebar by providing a secondary link to these materials. 27. Use text size and placement to clearly communicate key information on the Checklists Project main page.

Conclusions / Priorities

Based on the results of usability testing, as well as principles of usability and principles of materials design, the following recommendations have been identified as the highest priorities for improvement of the *Evaluation Checklists Project* website:

1. Create an organizing structure for checklists that is intuitive to evaluators, such as the key activities of evaluation, because the alphabetical ordering of checklists is not helpful to users in locating needed checklists.
2. Emphasize the checklists as the main feature of the website by putting the list of checklists (or an organizing structure for the checklists) on the main page of the website so that it is the first element that users see when they come to the website.
3. As far as possible, provide a consistent format for all checklists, using checkboxes or bullet points that focus information on “what to do” and “how to do it”. Use extended footnotes or appendices to add detailed narrative, background and additional information.
4. Ensure that target users can immediately determine the correct use of each checklist by providing a context at the beginning which clearly states:
 - purpose of the checklist;
 - intended users of the checklist;
 - when to use the checklist;
 - how to use the checklist.
5. Minimize confusion regarding the names of the checklists by:
 - renaming lists to emphasize differences from other checklists;
 - using most common terminology available for titles;
 - considering titles that explain “How to...”.
6. In order to make checklists more easily accessible, make the title of each checklist a link to the HTML version of the checklist, and provide a one-line rollover that describes the purpose of the checklist.

References

Dumas, J. S. and J. C. Redish (1993). A practical guide to usability testing. Norwood, NJ, Ablex.

Ericsson, K. A. and H. A. Simon (1993). Protocol analysis: Verbal reports as data. Cambridge, MA, MIT Press.

Appendix: Usability Test Plan & Materials

Client: The Evaluation Center @ Western Michigan University

Product: Checklist Website

Materials Needed:

- Networked computer with access to the Checklist Website:
www.wmich.edu/evalctr/checklists
- Test materials
 - Introductory protocol
 - Task sheets
 - Post-test questions
- Notetaking forms
- Watch / Timer
- Tape recorder with extra tapes and batteries, as needed

Facilities:

- 1 quiet space including adequate lighting, an AC outlet, and a comfortable computer desk that allows for two chairs to face the computer.

Procedures:

1. Following the welcome and personal introductions, the facilitator will review the introductory protocol with the participant. This includes an explanation and demonstration of think aloud protocol.
2. The facilitator will provide the participant with a question and/or task to complete, ensuring that no new task is assigned until the previous one is completed.
3. During each task, the facilitator may remind the participant to think aloud, but will refrain from assisting with the task unless something requires further clarification. The participant is expected to complete the task as if she was working through the material on her own. The observer will use a prepared note-taking form for each task to record the participants' path, time spent per task, outcome, and relevant comments made during the think aloud.
4. After all tasks have been completed and the test is over, the facilitator will follow up asking the post-test questions identified for the sessions.
5. Thanks to the participant for completing the usability test.

Introductory Protocol

Welcome and thank you again for agreeing to participate in this evaluation session of the Checklist Website Project of The Evaluation Center at Western Michigan University.

This session is intended to have you help us evaluate the design and usability of the website, in order to determine the strengths and weaknesses of the site and to provide input regarding how to improve the site. The way we evaluate such materials is to have people like yourselves, who are the intended audience for the website, engage in a series of tasks using the website.

It is important to remember that you are helping us to evaluate the material and that we are not evaluating you. In the event that you have some difficulty with some of the tasks, this is actually a good thing because it means we have found something that can be improved.

To help us understand what you are thinking as you complete each task, I am going to ask you to think out loud as you work. Imagine solving a math question where you multiply 3 digit numbers (e.g. $2 \times 8 = 16$ carry the one, etc....). If you forget to think out loud, I may remind you.

I will be taking notes along the way to help me remember how things work for you. I may also tape-record the session in case I miss something in my notes. Your tape will be used only to review this session and your name will never be used in connection with any of your comments.

Treat each task as if you were working alone. You can choose to pass on any task at any time. When you feel you have completed a task, announce that you are done and we can move on to the next task.

After all the tasks are complete, I will have a few final questions for you about the website and that will be the end of the session. Do you have any questions for me?

Let's begin...

Usability Test Activities

- Q.1 Read the first page of the Checklist website. In your own words, what is the purpose of the website?
- Q.2 If you came to this website to find help in conducting an evaluation, what is the first thing you would do at the website?
- Q.3 If you wanted to find help planning a meeting in which you gave feedback to a client, what checklist would you choose?
- Q.4 Based on the title, what purpose do you think the “key evaluation checklist” serves?
- Q.5 Pick any checklist that you are interested in using to help with you with an evaluation. Why did you select that checklist? Open that checklist and think out loud to describe your initial response.
- Q.6 Pick a second checklist that you are interested in using to help with you with an evaluation? Why did you select that checklist? Open that checklist and think out loud to describe your initial response.
- Q.7 If you were planning a contract for an evaluation project, what checklist would you select? What information that checklist would be most valuable to you?
- Q.8 Look through the list of 23 checklists. Tell me which checklists you think are most important and why?
- Q.9 Look through the list of 23 checklists. Tell me which checklists you think are least important and why?
- Q.10 You have been using the [html/pdf] link to view the checklists. Why? When would you use the other link?
- Q.11 When would you use the “nominate a checklist” link?
- Q.12 How would you use the search feature?
- Q.13 How would you get to the checklist from the main page of the Evaluation Center website?

Post Test Questions

- Q.14 Imagine that your boss has just told you that you are to take on a new evaluation project. You have 60 minutes before you meet with the client to begin negotiating the details of the project. What materials from the website would you access first? What are the key messages that these materials convey to you?
- Q.15 How would you use the three links to articles that are provided in the brown box on the first page of the website?
- Q.16 Now that you are quite familiar with what the website covers, where do you feel you need more information? Where would you prefer less information?
- Q.17 What general suggestions would you make for improving the current website?