eVideo Search Application Usability Report
Rachael Winterling, Usability Assistant (August 2015)

In August 2015, the J. Murrey Atkins Library’s Usability Lab conducted a study of eVideo Search Application. The interface will be implemented in the fall 2015 semester and will be located on Atkins’ website, which serves students, faculty, staff, and community patrons. The Non-Serials Electronic Resources Librarian collaborated with the Digital Initiatives department to develop and test the eVideo Search Application. The objective of the user interface is to provide users access to all of the electronic videos and collections that Atkins’ subscribes to and owns.

The study included analysis of tasks-based testing and an assessment of the interface conducted by the Usability Assistant. This assessment method is an effective way to uncover usability issues as it consists of representative users conducting relevant tasks while using the interface. The tasks-based testing consisted of five participants that represented four undergraduate students and one graduate student. The five participants were asked to perform five identical tasks.

The majority of the participants completed the tasks with little difficulty. This is particularly noteworthy considering that none of the participants had any exposure to the eVideo Search Application before testing. Feedback was largely positive with minor recommendations. The study revealed several issues that can be altered to increase the efficiency, effectiveness, ease to learn, error tolerance, and engagement of the user interface. While no critical usability issues (problems that made the site unusable or negatively affect its efficiency for multiple users), were uncovered, the study revealed minor issues. This report contains a list of recommendations to address these issues. Additionally, the results identified further possibilities of inquiry for future studies.

Study Design

The tasks analysis helps researchers uncover usability issues as users interact with a web interface via predefined tasks. The Usability Assistant first assessed the search application and then identified anticipated tasks that users will commonly preform to develop and finalize the study’s task list. In addition to the task list, the study incorporated a pre-test and post-test. The task lists for each participant groups, pre-test, and post-test are listed below:

Pre-test Questions

1. What year are you in school?
2. What is your field of study?
3. Have you ever searched for a video in the library’s catalog?
   a. If so, how often and what for?
b. If no, why haven’t you? And do you think you will anytime in the future?

Tasks

1. Locate the following Physical Science video, *What is life? Wonders of Life.*
   a. Email the video to rwinterl@uncc.edu
2. What is the second video listed in the Nursing subject?
   a. Locate the APA citation for the video.
3. Locate the instructions on how to bookmark a video in the NC LIVE Video Collection.
   a. Bookmark the first video in the NOVA series in the NC LIVE Video Collection.
4. Locate the transcript for the following video, *Authenticating Premium Chocolate.*
5. What is the first video listed in the Area Studies subject published between 1995-2005?

Post-Test Questions

1. Which feature do you find the most useful?
2. Is there anything you would like to see improved?
3. Would you use this interface in the future?
   a. If so, how often and why?
   b. If no, why not?
4. Do you have any additional comments?

Participant’s performances as they attempt to complete the tasks expose usability issues and inform recommendations. During the test session, participants were encouraged to articulate their thoughts and actions aloud as they worked through the tasks. The think aloud protocol allows researchers to understand the context for user actions and decisions while completing a specific task; making it easier for the researchers to determine the underlying causes of usability issues.

The test sessions ranged from 5-10 minutes. The Usability Assistant acted as the facilitator and note taker in the five test sessions. The role of the facilitator included greeting the participants upon arrival, guiding participants through the informed consent process, presenting the participants with the tasks, answering participant’s questions, and prompting the participants for responses. The role of the note taker included observing the participant’s body language and taking notes on the participant’s comments and search techniques. All the test sessions were conducted in Atkins Usability Lab, using a Dell Desktop computer equipped with Morae software; the software-captured participants’ interaction with the eVideo Search Application by recording audio, video, on-screen activity, and mouse input. The notes and recording were later analyzed resulting in recommendations to improve the user interface.
Recruitment

Participants were recruited through posters placed throughout the library’s facility. The posters signage advertised: “$5 gift card, participate in a usability study and receive a $5 gift card.” In addition, the posters provided contact information for potential participants.

Five participants took part in the study. The five participants read and signed an informed consent form approved by the university’s Institutional Review Board. Participants received a $5 Starbucks gift card for their participation in the study. Participants received the incentive regardless of whether they successfully or unsuccessfully completed the usability test.

Participants Demographics

The participants consisted of four undergraduate students and one graduate student. The undergraduate and graduate students represented five different areas of study, which were electrical engineering, systems engineering, English, biology, and communications. None of the participants had any exposure to the interface before testing.

Recommendations

The following recommendations were developed based on analysis of the data collected from the usability test recordings, pre-survey responses, and post-test comments from the five participants. In addition, the Usability Assistant completed an assessment of the eVideo interface by incorporating usability best practices. The recommendations include justification drawn from the assessment and the study’s pre-test and post-test survey, participant comments, and notes from each test session. While no critical usability issues were uncovered (problems that made the site unusable or negatively affect its efficiency to users), the study did reveal smaller issues that could be made to increase the efficiently, effectiveness, ease of learning, error tolerance, and engagement of the eVideo interface.

1. **Add identifying information to the eVideo Search Application such as a title and a description.**

   A title for the eVideo Search Application needs to be determined before the hard launch. Determining the title before the hard launch will decrease the chance of confusion among users; major changes to an interface after implementation such as the title can confuse users when locating the interface.

   Adding a description to the eVideo Search

   ![Figure 1.1](image_url)
Application will allow users to view the purpose of the interface. This is especially important when the interface is a new feature within a website and when the feature is on a site that is constantly serving new users. The “Faculty eTextbook Database” is a good reference (Figure 1.1).

2. **Ensure content within the eVideo Search Application is consistently labeled and error free.**
The eVideo Search Application’s content should be free of grammatical errors and misspellings, and be consistently labeled before the hard launch.

   - The eVideo Search Applications homepage includes video collections that users can view. The “Ethnography” collection is misspelled as “Ethnograpgy” (Figure 2.1). Correcting misspellings will increase the credibility the user interface as well as increase the efficiency and effectiveness.

   ![Collections](image)

   **Figure 2.1**

   - Ensure that the word “bookmark” is consistently labelled on the “More & Tricks” page. Under the “NC Live Video Collection,” the subheading is “Creating Book Marks” and the basal text is to as “bookmark” (Figure 2.2). Consistently labeling “bookmark” will increase the credibility the user interface as well as increase the efficiency and effectiveness.

   ![NC Live Video Collection](image)

   **Figure 2.2**
• Consistently label NC LIVE throughout the eVideo Search Application to increase the credibility of the user interface as well as increase the efficiency and effectiveness. NC LIVE is labelled four different ways throughout the user interface.
  o The “How to Embed Videos” page and the “More Tips & Tricks” page labels NC LIVE as “NC Live Video Collection.”
  o The “How to Cite” page labels NC LIVE as “NCLive.”
  o The “Collection” section on the homepage is labelled as “PBS NC Live.”
  o The “Collection” refinement found in the “Refine Search” feature labels NC LIVE as “NC Live.”
• Ensure the navigational menu item “More Tips & Tricks” is consistent with the page’s title. The title on the page is “Tip and Tricks.” Making the navigational menu item and the title of the page consistent will increase the effectiveness and efficiency of the user interface.

3. **Change the layout of the “More Tips & Tricks” page to be consistent with the “How to Embed Videos,” “How to Cite,” and “FAQ” pages.**

The current layout of the “More Tips & Tricks” page (Figure 3.1) is not consistent with the “How to Embed Videos,” “How to Cite” and “FAQ” pages (Figure 3.2). Participants were asked in task 3 to “locate the instructions on how to bookmark a video in the NC Live Video Collection,” this information can be found on the “More Tips & Tricks” page. All five participants did not locate the needed information on their first try, the participants looked over the heading “NC Live Video Collection,” and when they did locate the information they questioned if it was correct. The subheadings on the page do not have a sense of hierarchy. The headings are bolded and subheadings are in the same typeface as the basal text. For example, the “NC Live Video Collection” heading is a larger font and bolded and the “Creating Book Marks” subheading is the same typeface as the basal text (Figure 3.3). Making the layout of the “More Tips & Tricks” page consistent with other subpages will increase the effectiveness, efficiency, ease to learn, and user engagement.
Tip and Tricks

Ambrose Video
Creating a link
On the each video page there is a link below the video to “View Permalink and Embedding Information”

Alexander Street Press
Creating a Custom Playlist
Sharing - You can share a title or a place by clicking the share button at the bottom of the video.

Films on Demand
Using Playlists

Kanopy
Playlists and Clip Creation Tool
The page produced from this link will include your permalinks and direct link you can send to via email to your classmates.

NC Live Video Collection
Creating Book Marks
NCLive allows you to create bookmarks, or permalinks, at specific parts in videos to post in our Moodle Class Module, or send to your students.

How to Cite

Citations
Our streaming video collection can be a great place to supplement your research and in some cases can be cited in your research (check with your professor first!). Most of our streaming media collections provide citing assistance. Here are some helpful tips on how to cite streaming media in your research papers.

Ambrose Video
On the video home page you will see a box in the center of the page that says “Cite this Program”. From here you can copy and paste the citation in APA, Harvard, MLA, MHRA, Chicago, CBE/CSE, Bluebook or AMA style.

Alexander Street Press
Alexander Street Press provides several formats of citations. When viewing the video, click the “Cite” Button in the bottom left hand corner.
4. Combine the following pages, “More Tips & Tricks,” “How to Embed Videos,” “How to Cite” to increase the interface’s efficiency and effectiveness.

The “More Tips & Tricks,” “How to Embed Videos,” and “How to Cite” pages can be combined into one page. Combining the three pages will increase the efficiency and effectiveness of the interface. The combined page could be organized by the video vendors (Ambrose Video, Alexander Street Press, Films on Demand, Kanopy, and NC LIVE Collection) and each vendor section could include information about citations, embedding, and any other relevant information that is found on the three pages. During task 3, “locate the instructions on how to bookmark a video in the NC LIVE Video Collection,” three of the five participants questioned which page the information was located on. Combining the three pages will reduce confusion of which page they need to view to locate specific information. In addition it will increase the efficiency, effectiveness, and ease to learn.

5. Change the specific date ranges in “Refine Search” to be in chronological order to increase the readability, efficiency, effectiveness, and engagement.

The eVideo Search Application’s search page allows users to refine the results by date ranges. The date ranges vary in increments depending on the specific search. The list of date ranges are in descending order. In addition, each unique date range is listed in descending order (Figure 4.1).
For example, a specific date range is listed as 1993-1983. One participant questioned why the date ranges were ordered this way and that they should be listed in chronological order. Reversing the dates for each individual date range to be in chronological order will increase the readability, the efficiency, the engagement, and the effectiveness of the refinement tool within the search page.

Findings

Findings are broken into three major sections to reflect the pre-test questions, the tasks-based testing, and the post-test questions.

Pre-Test Questions

The five participants were asked three identical questions. Two of the questions gathered demographic data, the participants’ year in school and the participants’ field of study (Figure 5.1). The remaining question asked the participants’ experience with searching for a video in the library’s catalog. All five participants never have searched for a video using the library’s catalog. Four of the five participants stated they did not know they could search for videos within the catalog. The remaining participant stated they have had no need to search for a video, but they have browsed the library’s physical video collection.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Year in School</th>
<th>Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>First Year Graduate Student</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>Participant 2</td>
<td>Sophomore</td>
<td>English</td>
</tr>
<tr>
<td>Participant 3</td>
<td>Senior</td>
<td>Biology</td>
</tr>
<tr>
<td>Participant 4</td>
<td>Senior</td>
<td>Communication</td>
</tr>
<tr>
<td>Participant 5</td>
<td>Junior</td>
<td>Systems Engineering</td>
</tr>
</tbody>
</table>

Figure 5.1

Tasks-Based Testing

Findings are grouped by the individual task along with a description of the success rate, ease of completion, errors, and participants’ comments.

Task 1: Locate the following Physical Science video, “What is life? Wonders of Life.”

- Email the video to rwinterl@uncc.edu

The task was designed to determine if users could locate a specific video when given the title and subject. To complete this task, participants must demonstrate a successful search technique that results in locating What is life? Wonders of Life video.

Several different approaches were taken to complete the task. Two of the five participants utilized the search box located in the upper right corner of the homepage to search, “What is life? Wonders of Life” (Figure 6.1). The two participants then clicked the first result (Figure 6.2) and
were directed to a third party site. The two participants then clicked the email widget (Figure 6.3) and filled out the appropriate information to complete the task. One of the five participants utilized the search box located in the upper right corner of the homepage to search the following partial title “What is life?” The participant clicked the first result and was directed to a third party site. The participant then clicked the email widget (Figure 6.3) and filled out the appropriate information to complete the task.

The remaining two participants began their search by clicking “Physical Science” in the “Browse by Subject” filter (Figure 6.4) located on the right side of the homepage. The participants looked through the first page of results and did not see the video they were attempting to locate. The two participants then used the search box located in the upper right corner of the result’s page. One of the two participants searched the full title, “What is Life? Wonders of Life” and the remaining participant searched by partial title, “What is Life?” Both participants clicked the first result and were directed to the third party site. The two participants then clicked the email widget (Figure 6.3) and
filled out the appropriate information to complete the task.

**Task 2: What is the second video listed in the Nursing subject?**

- *Locate the APA citation for the video.*

The task was designed to determine if users could determine how to view videos by subject and produce a citation. All participants completed the task successfully. To complete this task, participants must demonstrate a successful search technique that results in locating a video in the nursing subject and to produce the APA citation for it. This task requires the participants to complete multiple steps, first to locate a specific video in the nursing subject and then to produce a citation for the video.
The five participants used the same search technique to complete task 2. The five participants began their search by clicking “Nursing” located in the “Browse by Subject” filter (Figure 7.1) located on the right side of the homepage. The participants then clicked the second video on the results page, “Introduction: 3-Lead EKG” (Figure 7.2). The participants were redirected to a third party site. The five participants then clicked the “citation” widget and clicked the APA radio button to generate the citation (Figure 7.3).
Task 3: Locate the instructions on how to bookmark a video in the NC LIVE Video Collection.

- Bookmark the first video in the NOVA series in the NC LIVE Video Collection.

The task was designed to determine if users could locate specific instructions and then bookmark a video in a video collection. Four of the five participants completed the task successfully. To complete this task, participants must demonstrate a successful search technique that results in locating instructions on bookmarking in the NC LIVE video collection and then to bookmark a video in the NOVA series.

Several different search techniques were used to complete task 3. Three of the five participants clicked the navigation menu item, “More Tips & Tricks” (Figure 8.1). The three participants then read the “NC Live Video Collection” section to identify how to create a bookmark (Figure 8.2); it is noted that all three participants had to read the page several times to locate the needed information; one of the three participants used the “ctrl+F” keyboard shortcut to search for “bookmark” to locate the bookmarking information. The three participants questioned if this was the correct information. One of the three participants commented that “NC Live Video Collection” should hyperlink to the eVideo collection. The three participants returned to the homepage, clicked the “NC LIVE Video Collection” widget (Figure 8.3), and were redirected to the NC LIVE Video Collection. The three participants clicked “NOVA” in the “Series” section (Figure 8.4) and clicked the first video, “The Big Energy Gamble” (Figure 8.5). The three participants then clicked the “Play video” widget (Figure 8.6) and then clicked “Create a Bookmark” at the top of the video (Figure 8.7). One of the five participants did not attempt the first part of task, the participant immediately the “NC LIVE Video Collection” widget on the homepage (Figure 8.3), and were redirected to the NC LIVE Video Collection. The participant clicked “NOVA” in the “Series” section (Figure 8.4) and clicked the first video, “The Big Energy Gamble” (Figure 8.5). The participant clicked the “Play video” widget (Figure 8.6) and then clicked “Create a Bookmark” at the top of the video to complete the task (Figure 8.7).

The remaining participant failed task 3. The participant began their search attempt by searching “NOVA series” in the search box located in the upper right corner of the homepage. The participant looked through the results and did not see any relevant results. The participant then searched for “NC Live Collection” in the search box located in the upper right of the results page, the participant did not see any relevant results. The participant did not know what to attempt next and asked the facilitator to move on to the next task.

![Figure 8.1](image-url)
Tip and Tricks

Ambrose Video
Creating a link
On the each video page there is a link below the video to "View Permalink and Embedding Information"

Alexander Street Press
Creating a Custom Playlist
Sharing - You can share a title or a place by clicking the share button at the bottom of the video.

Films on Demand
Using Playlists
Using Permalinks

Kanopy
Playlist and Clip Creation Tool

The page produced from this link will include your permalink and direct link you can send to via email to your classmates.

NC Live Video Collection
Creating Book Marks
NC Live allows you to create bookmarks, or permalinks, at specific parts in videos to post in our Moodle Class Module, or send to your students.

To create a bookmark, just click the "Create Bookmark" button just above the video, at the point in the video you are interested in then copy the text and share it.

Collections
BBC Shakespeare
Dance In Video
Education
Ethnography
FOO Academic
FOO Nursing
LGBT Studies
PBS NC Live
State Archives of NC
World Cinema
The Big Energy Gamble

Series: NOVA

A vast majority of Americans believe we are facing a global climate crisis, but we don't know how the various energy solutions we hear about can help. NOVA looks at everything California—an oasis of energy conservation—is doing, from conservation and efficiency to the development of new sources of...
Task 4: Locate the transcript for the following video, “Authenticating Premium Chocolate.”

The task was designed to determine if users could locate the transcript to a specific video. All participants completed the task successfully. To complete this task, participants must demonstrate a successful search technique to locate a specific video’s transcript. This task requires the participants to complete multiple steps, first locating the Authenticating Premium Chocolate video and then finding the video’s transcript.

The five participants used the same search technique to complete task 4. The five participants began the task by utilizing the search box located in the upper right corner of the home page (Figure 9.1). Four of the five participants searched the full title, “Authenticating Premium Chocolate” and the remaining participant search by a partial title, “premium chocolate.” The five participants clicked the first result (Figure 9.2) and were redirected to a third party site. The participants click the transcript widget in the right margin (Figure 9.3) to complete the task.

![Figure 9.1](image1)
![Figure 9.2](image2)
Task 5: What is the first video listed in the Area Studies subject published between 1995-2005?

The task was designed to determine if users could locate a specific video when given the subject and timeframe. All participants completed the task successfully. To complete this task, participants must demonstrate a successful search technique to locate the video using it’s subject and the timeframe it was produced.

The five participants used the same search technique to complete task 5. The five participants began the task by clicking “Area Studies” located in the “Browse by Subject” filter (Figure 10.1) located on the right side of the homepage. The five participants then refined the search by clicking “2005-1995” in the “Date Range” filter located in the left side margin (Figure 10.2). One participant questioned why the specific date ranges were ordered in descending order and that they should be listed in chronological order. The five participants then read off the first result’s title to complete the task.
Post-Test Questions

The five participants were asked four identical questions. The questions asked the participants about improvements that should be made, the most useful feature, would they use the eVideo Search Application when it is implemented, and if they had any additional comments.

<table>
<thead>
<tr>
<th>Most useful feature</th>
<th>Improvements</th>
<th>Future Use</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>Search Feature</td>
<td>A tool to create custom playlists</td>
<td>Yes, for pleasure</td>
</tr>
<tr>
<td>Participant 2</td>
<td>Search Feature, Browse by subject</td>
<td>N/A</td>
<td>No, do not use videos for research</td>
</tr>
<tr>
<td>Participant 3</td>
<td>Search Feature</td>
<td>Date Ranges in chronological order (1995-2000 instead of 2000-1995), Information about each video collection that is shown when the mouse hovers over each collection</td>
<td>Yes, for research</td>
</tr>
<tr>
<td>Participant 4</td>
<td>Browse by Subject, Date Range Refinement</td>
<td>N/A</td>
<td>Yes, for research</td>
</tr>
<tr>
<td>Participant 5</td>
<td>Search Feature</td>
<td>N/A</td>
<td>No, do not use videos for research</td>
</tr>
</tbody>
</table>

Conclusion

The eVideo Search Application usability study identified several opportunities for improvement that would result in a more efficient, effective, and desirable interface. The usability study focused on the effectiveness, efficiency, error tolerance, engagement, and ease of use through the analysis of common tasks associated with the user interface. The study revealed opportunities for improvement that would result in an improved interface experience for users.

The Usability Assistant communicated findings and recommendations with the development team during the analysis of the study. The development team quickly resolved issues that needed immediate attention. While this report was being compiled, the misspelling of the ethnography video collection was corrected and the specific date ranges in the “Refine Search” were changed to be listed in chronological order.
The following recommendations should be addressed prior to the hard launch:

- Add identifying information to the eVideo Search Application such as a title and a description.
- Ensure content within the eVideo Search Application is consistently labeled and error free.
- Make the layout of the “More Tips & Tricks” page consistent with the “How to Embed Videos,” “How to Cite,” and “FAQ” pages.
- Combine the following pages, “More Tips & Tricks,” “How to Embed Videos,” “How to Cite” to increase the interface’s efficiency and effectiveness.

Usability testing should be conducted on the eVideo Search Application on a regular basis to ensure functionality, efficiency, and desirability.