

Critiquing Chapman's Online Finding Aids Usability Study

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Abstract

This article presents a research critique of a qualitative research study examining the usability of digitally encoded archival finding aids also referred to as Encoded Archival Description (EAD) (Chapman, 2010). The rubric for critically assessing this study comes from criteria identified by Boswell and Cannon (2009). The research study's report form, purpose, literature review, research questions, methodology, and results are explored. The researcher's assumptions, definitions, strengths, and limitations are revealed through this critique. The report is strong in surveying previous EAD usability research and identifying recurring themes found in the literature. The results of the study are found to agree with many previous research results but the elements of the study aren't presented in a clear, logical way that instills trust that results from the study can be applied generally to other EAD displays. What is made clear is the need for further study of EAD usability.

Introduction

Not all research studies are of equal value. The ability to critically evaluate a research study is a key part of understanding and applying principles and practices that will positively contribute to a given research domain (Boswell and Cannon, 2009, p. 292). This is particularly true in the field of library and information science where there is growing interest by academic archives and special collections to better understand and meet the needs of all their patrons. In the past 20 years various researchers have published studies related to the usability of online finding aid displays.

Finding aids are documents created and maintained by archives and special collections detailing archival materials and information stored in a collection. The Encoded Archival Description (EAD) is a digital encoding format, developed in the late 20th century, for sharing finding aids in an online environment (The Library of Congress, 2012). Since the creation of EAD many archivists have performed research studies to assess and evaluate an archive's ability to meet user needs through the EAD. In 2010 Chapman published the results of a usability study aimed to assess the display of EAD at the Southern Historical Collection (Chapman, 2010). Examining this research study's report form, purpose, literature review, research questions, research design and methodology, and results will lead to better understanding the assumptions, definitions, strengths and limitations of the research study. Knowing this information will help librarians and information scientists appropriately apply this research to their work.

Critique

Report Form

The ability of a researcher to adequately present their work can be judged based on the report's form which includes evaluating the author's qualifications, title, abstract, and writing style of the report (Coughlin, Cronin, & Ryan, 2007, p. 658; Ryan, Coughlin, & Cronin, 2007, p. 738). The only indication of the author's qualifications to write this research study is their employment at the North Carolina State University Libraries. The title of the study is direct and long enough to orient a reader to the study's nature and purpose. The abstract begins with a clear purpose statement adding context to the study and its results. The study's findings and recommendations are also clearly stated but the abstract lacks information about the research problem and methodology. The report is well organized guiding the reader along from part to part of the research study. While the report does provide a great deal of information in a well organized manner the writing is not consistently concise. For example, the study's purpose statement is a long sentence lacking clarity and brevity:

“The goals of this study were to better understand how these distinct user populations interact with online finding aids and what aspects of online display help or hinder them in that process as well as how quickly novice users learn without the help of mediators and what capabilities users would like finding aids to have” (Chapman, 2010, p. 5).

The length of this statement makes it hard to understand and would benefit if rewritten to be more concise. Otherwise the grammar doesn't impede the ability to understand the study and avoids using unfamiliar terms without first defining their usage.

Purpose

Chapman (2010) makes the case that there is a dearth of academic research focusing on the direct use of EAD by users. This study is positioned to fill this gap of research by observing user's direct interaction with EAD and how those observations can lead to improved visual displays that better meet user's needs (p. 4-5). The overarching aim of the study is put into focus as it is only meant as a "first round of usability testing" that lacks the ability to appraise improvement in EAD displays but "add[s] to the small body of data on user interaction... providing a further stepping stone for future research" (Chapman, 2010, p. 5). This helps place the study in context to see what the study isn't as well as what it aims to be. Thus, Chapman takes a pragmatic approach hoping to contribute another usability study that, combined with past studies, will increase library and information scientists' understanding of user-centered EAD displays.

Literature Review

Chapman surveys existing research studies and shares various observations and conclusions demonstrating how EAD displays are barriers for successful user interaction. The review navigates existing research studies thematically rather than temporally. While initially composed of identifying various seemingly miscellaneous research conclusions, the literature review begins to reveal research results related to the study's four main goals including barriers that stand in the way of users' interaction with EAD and requested EAD display features, and issues related to advanced and novice users. What is missing in the review is a well defined progression through the literature leading to a clear rationale for the study's main goals. Instead the previously stated research goals are listed in an order that doesn't match the presentation of themes discovered in the literature. Although sharing a high quantity and high quality of previous

research related to EAD usability, the literature review falls short in organizing that literature to clarify the research study's rationale and direction.

Research Questions

This research study hopes to better understand 1) how advanced and novice EAD users interact with EAD displays, 2) the barriers that stand in the way of users' interaction with EAD, 3) the rate novice users learn how to use an EAD display without external help, and 4) requested EAD display features (Chapman, 2010, p. 5). How Chapman comes to these specific questions is unclear at this point in the study as they were presented along with the study's purpose before the literature review. The literature review touches on some of these questions but not in a systematic way that is easy to follow and understand. These research questions could have been better introduced after the literature review along with a conceptual framework or theory that would reveal how Chapman arrived at these research questions based on the study's purpose and findings from the literature review. Including a section in the report detailing these research questions after the literature review and before the study design and methodology would better clarify how and why these questions were used in the study.

Research Design and Methodology

The study methodology discusses the participant groups and details about conducting the study. Other than one quick literature reference it isn't clear why the study chose "two participant groups of six people each" (Chapman, 2010, p. 9) with one group representing novice archival searchers and the other group consisting of advanced archival searchers. Some details of the research environment are given explaining that the tests were performed in a usability lab within the David Library at UNC-Chapel Hill using usability testing software that recorded

“participants’ screen movements and audio” (Chapman, 2010, p. 10). The report also explains that the usability test includes three parts: a demographics questionnaire, a test involving completing tasks using an EAD, and a post-test questionnaire and exit interview. The tasks asked by participants is included in the report’s appendix but information about the demographics questionnaire and post-test questionnaire and interview are left unexplained.

While the study includes a useful table showing information about each participant, (e.g. their age, gender, field of study at the university, archival experience, internet experience level, and time spent each week on the internet), the sampling process isn’t revealed in the study report nor are the ethical considerations addressed of how the researcher worked with participants and collected data. Information about how observations were recorded and coded for analysis is also missing from this report. It is hard to follow the researcher’s thought process in conducting this study based on the information in the report. At this point in the study it appears that the researcher chose their study questions and methodology based on a select few observations found in past EAD usability studies but their reason for choosing these approaches isn’t fully understood.

Results and Recommendations

More than half of the research report is spent discussing the study’s results. The results and recommendations centered around specific areas of an EAD display that can be barriers to their effective use. These include EAD help features, navigation features, overall display structure, archival terminology, search, and Web 2.0 features. The researcher provides a high level of detail explaining their observations from the study but the analysis of the data and how these results were determined is left to trusting their opaque data collection and analysis process.

It is interesting to note that the study results align with the specific themes addressed in the literature review. This may indicate that the literature review was written after the data collection process which can occur in a qualitative study (Boswell and Cannon, 2009, p. 305).

The report's fundamental conclusion that archival experience and internet proficiency play a significant factor in a user's ability to effectively use an EAD is based on the time it takes for participants to perform tasks using the EAD. This analysis and conclusion is undermined when the report states that the analysis and measurements they observed "are not always an accurate indicator of success" using an EAD (Chapman, 2010, p. 25). The additional conclusions and recommendations are shared with the assumption that these results can be applied to a more general audience when the study was qualitative and focused on a few narrow user populations (i.e. small sample size). The researcher's study and findings are interesting for a small, selective segment of novice and advanced EAD users but lacks the robustness to confidently apply the results and data to other archives and special collections.

Conclusion

Some of the gaps and limitations of this study could be explained by a restriction placed on the length of the report but there are quite a few aspects of this qualitative study that fall short of a believable and robust research report. The report is strong in surveying previous EAD usability studies and identifying some common themes found in those studies. It is a broad qualitative study trying to answer a broad set of research questions about user interaction with EAD but the study doesn't lead to clear, defined conclusions that can be appropriately applied in a practical EAD display design. Revision of the title and abstract to align closer with the study's focus and conclusions about novice and advanced EAD users would help to improve the

credibility of the report. Explaining more about the sampling and data collection processes would increase the robustness of the study and help others see how the results can be applied trusting that the assumptions made in the study can work for other EAD user populations. Even though Chapman shows that this study corroborates the findings of previous studies, the elements of the study (i.e. research purpose, literature review, research questions, and methodology) aren't presented in a clear, logical way that instills trust that results from the study can be applied generally to other EAD displays. What is made clear is the need for further study of EAD usability.

References

- Boswell, C. & Cannon, S. (2009). Critique Process in C. Boswell and S. Cannon (Eds.), *Introduction to nursing research: Incorporating evidence based practice* (p. 291-316). Burlington, MA: Jones and Bartlett Learning.
- Chapman, J. C. (2010). Observing users: An empirical analysis of user interaction with online finding aids. *Journal of Archival Organization*, 8(1), 4-30. doi: 10.1080/15332748.2010.484361
- Coughlin, M., Cronin, P., & Ryan, F. (2007). Step-by-step-guide to critiquing research. Part 1: Quantitative research. *British Journal of Medicine*, 16(11), 658-663.
- Library of Congress. (2012, July 11). About EAD. Retrieved from <http://www.loc.gov/ead/eadabout.html>
- Ryan, F., Coughlin, M., & Cronin, P. (2007). Step-by-step-guide to critiquing research. Part 2: Qualitative research. *British Journal of Medicine*, 16(12), 738-744.