

# CREATING IMPACT THROUGH USER-CENTERED RESEARCH

Angela Myers | Elon University

---

User-centered methodology is often seen in usability studies but can make research within the field of rhetoric more impactful, regardless of the research methods being used. Scholars such as Stuart Blythe and Michael Salvo argue for user-centered design to be integrated into all steps of the research process to suit the needs of audiences and users better. This paper considers how user-centered methodology can be integrated into all stages of professional writing research. By analyzing the user-centered methodology of a two-year-long undergraduate thesis study on the rhetoric of online sexual violence prevention courses for university students, one can better understand how to integrate the feedback and needs of the users into all aspects of undergraduate rhetoric studies. The paper reflects on how user-centered research was integrated into the four research methods in the sexual violence prevention research project (interviews, usability studies, rhetorical analysis, and comparative analysis) and draws on studies with a user-centered focus and methodological reflections from established scholars in the field. Integrating user-centered methodology into all stages of professional writing research better suits the audience's needs, especially in social justice research, where a goal is to provide findings that could create a more equitable society. Researchers ought to consider how to integrate user-centered design into more aspects of their projects if they want to undertake more effective research for the users or audiences.

---

To make a real-world impact, research in professional writing and writing studies needs to go beyond analyzing written texts. Making an impact is at the heart of my research thesis studying a sexual violence prevention program at my university, so I decided to approach my project with a user-centered methodology. Scholars of rhetoric utilize a user-centered approach to ground their research in the needs of the audience or the user as well as in the text itself. Michael J. Salvo, a leading scholar on user-centered methodology

in the field of rhetoric, argues, “the development of effective collaborative methods requires meaningful communication between users and designers...” (273). Using the works of Salvo and other leading scholars as guidance, I implemented this user-centered approach into all the aspects of my research project. I hope that more research in writing studies will use this methodology, and I offer this essay to demonstrate how it can be used in undergraduate research to provide more user feedback in the research process.

My undergraduate honors thesis studies the communicative and rhetorical practices of my university's online sexual assault prevention course. I conducted interviews with experts on my campus about this issue and completed a rhetorical analysis of this program, as well as a comparative rhetorical analysis of prevention programming at Victoria University in Wellington, New Zealand. I also conducted usability tests with students at my university to gain feedback on materials from the course and revised materials based on the best rhetorical practices. With the data compiled from this mixed-methods research, I hope to create recommendations on the best ways to communicate prevention in online courses and write an undergraduate honors thesis.

My research mentor suggested a user-centered methodological framework. At first, I thought this meant conducting focus groups and usability studies along with a rhetorical analysis, but as I delved into the literature surrounding user-centered design, I realized user-centered design was a methodology and the foundation for every method of research in my study.

Research methods are the specific processes and tools researchers use to carry out projects, but research methodologies are more concerned with "discourse community knowledge" (Cope and Cutrufello 69). Methodology is a way of thinking, which draws on a specific worldview and shapes the methods of research (Haas and Bakke 233). For user-centered research to be a methodology, users are included as partners in every method and at every stage of the project. For my research, I made sure each of my methods and phases over my two-year project included feedback from users

of the sexual assault prevention course and the larger university community, as mapped in figure 1 below. By ensuring users were involved in every method and phase of my research, I integrated the methodology of user-centered design into my research design.

## WHAT IS USER-CENTERED DESIGN?

User-centered design requires the researcher to treat the end-users or audience of a program as partners instead of participants. User-centered research has many benefits for both the effectiveness of research and for the users themselves. It bridges the gap between the user and the researcher by allowing the researcher to dive deeper into the cultural context and motivations of the user (Sun 461). User-centered research and design treats users as partners and is a good framework to consider when studying online communication because online mediums allow for more opportunities for users to interact with texts (Potts 287). As daily tasks, such as writing, happen more and more in interactive settings, such as the online prevention course I am researching, user-centered design is imperative.

This methodology also allows for human dignity to be upheld because it treats end-users as knowledgeable partners in the research process (Buchanan 37). This is extremely important in social justice work within the field of professional writing, as these are sensitive issues that affect the audience significantly. Many writing studies projects attempt to create positive change and increased understanding in society, but the researcher first needs to understand the user and where they are coming from.



Figure 1. An outline of the phases of my research highlighting how user-centered methods were used throughout the study

User-centered design is becoming more popular within the field of corporate communication but is used less in academia. Stuart Blythe explains how usability tests and user-centered research is conducted in the corporate world and might be used in academia: “Following this approach, a designer may start by working with users, by examining their experiences with technology, and by trying to characterize the practical knowledge that users bring to their work” (332). For example, after I finished the rhetorical analyses of the US and New Zealand courses, I tested the results of the analyses by designing prevention course modules and asking students at my university to test the modules and provide feedback, which gives the student body a voice into the final recommendations of the project.

Yet, user-centered design goes beyond getting feedback from the target demographic. It involves any sort of method that enriches audience analysis through understanding the actions of the user better (Johnson et al. 12). User-centered design changes the fundamentals of many methods and requires interviews, focus groups, usability tests, and other partnerships with the audience or end-user to be part of the research process.

### USER-CENTERED RHETORICAL TRIANGLE

Advocates of user-centered design advocate for a modified version of the rhetorical triangle, a long-standing heuristic for analyzing rhetorical situations. The traditional rhetorical triangle

represents the relationship between the text, the reader, and the writer. At the center of all three is the context, or the situational elements that influence the writer's purpose, the rhetorical strategies for developing a text, and the reader's perception (Blakesley and Hoogeveen 3).

Robert Johnson presents a different version of a rhetorical triangle than the Blakesley and Hoogeveen triangle, where the user is at the center and the three points on the triangle are the writers/designers, the user tasks or actions, and the artifact, text or system (36). While context surrounding the user-centered rhetorical triangle is important, this proposed rhetorical triangle positions the user at the center.

In my research design, I enact this model by incorporating users at every stage of the two-year-long process. For example, my first research method is a rhetorical analysis of the online prevention course students take before their first year at Elon. While this method might not seem user-centered, I have paired it with interviews with staff, faculty, and students at Elon to understand the culture surrounding the course and the user's needs. When redesigning the Online Writing Center (OWL) at Purdue, Michael J. Salvo et al. had a similar approach. Their research was user-centered and, while usability tests were part of the research, they first understood the social and cultural context of OWL through interviews with social and cultural stakeholders before analyzing the current OWL resources (Salvo et al. 112). Dànille DeVoss et al. also utilized interviews as a method in their study on how to better teach new media writing at the university level. They interviewed composition professors

to discern the biggest problems and grasp the social context of classrooms where instructors are unsure how to approach new media writing (15). Utilizing interviews can be an effective way to learn about the user's needs and the social context surrounding user concerns.

Another method I am utilizing is usability tests on pilot questions created based on the rhetorical analysis. While usability tests seek to gain feedback from the user, the feedback is often collected after the research is done. By conducting usability tests before finishing the research, I can incorporate more user feedback into my study and results. Salvo discusses how the shift from usability tests from late-stage design testing to an integral part of the research or design process has allowed the user to have more say in the creation of the final product, such as the final course recommendations from my research (273). By including many users' perspectives in multiple stages of my research, I hope to find out more about what communication strategies are effective for the program's end-users.

## CULTURAL CONSIDERATIONS AND THE USER

While Johnson's rhetorical triangle and Blakesley and Hoogeveen's triangle are different, what they have in common is understanding the context. Even if you are a member of the culture involved in the research, it is not enough to base research on your own cultural understanding (Sun; Salvo; Buchanan). For example, as an undergraduate, I am aware of the student culture at my school, but that does not mean I should

not study others' interpretation of my university's culture. As a researcher, it's important to conduct mixed methods research that is inclusive of many perspectives from a discourse community. For my research, I utilized interviews, secondary research, rhetorical analysis, a comparative rhetorical analysis, and usability tests instead of focusing on one research method. Additionally, I made sure to include the users' feedback at every stage of the process so I understood the cultural context of the university.

Cultural usability is a key consideration of user-centered design, especially for programs catered to a certain community. Cultural usability is "a critical design sensibility [that] situates the practices of technology within its cultural and social contexts" (Sun 460). Sun recommends interviews and ethnographic research as ways to become aware of cultural usability.

My own research is designed so understanding the cultural context is the first step in the research process. To gain information on my university's specific culture around sexual violence, I interviewed staff, faculty, and students involved in prevention efforts. To decide who to interview, I mapped out my school's wider wellness and sexual assault prevention efforts to get a picture of the context surrounding this issue at Elon University on a whiteboard, using arrows to connect related efforts and considering initiatives run by students, staff, and faculty. This cultural map of the school's efforts, as seen in figure 2, informed who I would interview and highlighted groups that were not involved in prevention. I decided groups that were not involved in prevention might be targeted audiences for usability tests

so the project could gain the insight of their user-feedback as well.

From there, I created a list of two student leaders, three faculty members, and four staff members to interview. I tailored the interview questions to their role in prevention on campus and asked more general questions on their perspective of the first-year prevention course. I also asked them for any ideas they had on how to improve communication on the subject in general around campus. From these interviews, I learned more about the cultural context needed for the rhetorical analysis and received ideas from users on what was needed for good communication in prevention courses. I gained insight into the overall scaffolding of prevention at Elon University and understood what students, faculty, and staff identified as the biggest obstacles to successful prevention.

These interviews also highlighted areas current staff, faculty, and students saw as needing improvement. For example, they all highlighted a need to advertise prevention initiatives on campus to a larger percentage of the student body. Several interviewees also pointed out the need for language to be concise, clear, and value-based. After the interviews, I decided to analyze the prevention courses based on two categories defined in that interview: the overall communication of the course, such as audiences targeted and which values are showcased in the course, and smaller communicative elements, such as the use of active and passive voice within the course. Gaining knowledge from users and experts on the specific cultural context can improve the focus of



Figure 2. Map of sexual violence prevention efforts at Elon University

rhetorical analyses and other research methods. No program or text is created in a vacuum, and discovering the wider context should be integrated into research methods for studies to meaningfully impact the user.

### THE SHIFT FROM PARTICIPATION TO COLLABORATION

After examining the cultural context, researchers can delve into analysis of the text or the

dialogue being studied. However, even in this phase of the process, the user needs to be at the center of the research (Salvo 273). One way to ensure this happens on college campuses is to allow undergraduate students to participate in research for issues that affect them. Beyond this, a user-centered model includes methods that give voice to the users, such as usability tests and focus groups (Blythe 331). Within these settings, researchers need to keep in

mind the cultural context and respect the user and see them as collaborators who can provide insightful knowledge.

Johnson also presents a model of user activities that might help researchers get from working with users as participants to working with them as collaborators. He focuses on the three activities of users: to learn, to do, and to produce. It would be easy for my study to focus on what users learn from the online course or what they do to interact with the course. However, this model also stresses working with them to see what they might produce. User production can be incorporated when users serve in collaborative roles through methods such as interviews or focus groups.

However, one problem with this model, especially in academia and studies involving undergraduates, is that it can be hard to recruit users as collaborators. Blythe points out it can be difficult to get undergraduate students to participate in research, though he acknowledges the time constraints on students before moving on to graduate school or the workforce as a main concern (Blythe 337). As a student researcher, I was under the same time constraints as undergraduate users, so time wasn't the issue, but motivating students to partake in usability tests was difficult. As a solution, I used part of the money from a research grant I was awarded to provide gift cards to participants in usability tests to increase motivation to participate. In general, it is important to consider the lack of time or motivation of users to participate in the research as a possible obstacle to fully implementing user-centered methodology.

## CONCLUSION

User-centered design allows users to learn and to do, as well as produce or contribute their voices and opinions to writing studies. When usability tests are paired with interviews, ethnographic studies, and other methods with a user-centered focus, the researchers can get a fuller picture of the user and how the research can help the users. When the user is at the center of every stage of the research design, then user-centered design becomes more than just part of the research; it becomes an overarching methodology that acts as a guiding value for the project.

To supplement the knowledge from usability studies, one needs to incorporate the user as the center of other research methods. A researcher ought to learn about the cultural context in which the user is situated, whether through interviews, secondary research, or another method. They also need to hear feedback from the user on the system itself. While usability studies can provide some of that feedback, focus groups, ethnographic studies, interviews, and other methods can allow the user even more space to voice their opinions.

With a user-centered methodology, researchers must rethink the roles of the users or audiences and how the rhetorical triangle relates to texts the user will interact with. If professional writing wants to play a role in the research and production of interactive texts or in research surrounding social justice issues like sexual violence prevention, then the field needs to adapt to incorporate the needs and voices of the users. Research on interactive or impactful texts must consider the opinions and contexts of collaborative users in order to produce meaningful results.

## ACKNOWLEDGMENTS

This author would like to thank Dr. Jessie Moore for her mentorship on the larger research thesis and the editors of *Young Scholars in Writing*, Emily Murphy Cope, Gabriel Cutrufello, and Kimberly Fahle Peck, for their feedback on this article. This research was supported by Elon University's Lumen Prize and the Honors Fellows program at Elon University.

## WORKS CITED

- Blakesley, David, and Jeffrey L. Hooegeven. *Writing: A Manual for the Digital Age, Brief*. 2nd ed., Cengage Learning, 2011.
- Blythe, Stuart. "Designing Online Courses: User-Centered Practices." *Computers and Composition* vol. 18, no. 4, 2001, pp. 329-346.
- Buchanan, Richard. "Human Dignity and Human Rights: Thoughts on the Principles of Human-Centered design." *Design Issues* vol. 17, no. 3, 2001, pp. 35-39.
- Cope, Emily Murphy, and Gabriel Cutrufello. "The Place of Research Methodologies in Undergraduate Research Development." *The Naylor Report*, edited by Dominic Dellicarpini, Jenn Fishman, and Jane Greer, 2020, pp. 68-71.
- DeVoss, Dànienne Nicole, et al. "Infrastructure and Composing: The When of New-Media Writing." *College Composition and Communication*, vol. 57, no. 1, 2005, pp. 14-44.
- Haas, Christina, and Abigail Bakke. "Editors' Introduction: Special Issue on New Methods for the Study of Written Communication." *Written Communication*, vol. 30, no. 3, 2013, pp. 233-235.
- Johnson, Robert R. *User-Centered Technology: A Rhetorical Theory for Computers and Other Mundane Artifacts*. State University of New York Press, 1998, EBSCO.
- Johnson, Robert R., et al. "User-Centered Technology in Participatory Culture: Two Decades 'Beyond a Narrow Conception of Usability Testing.'" *Ieee Transactions on Professional Communication*, vol. 50, no. 4, 2007.
- Potts, Liza. "Using Actor Network Theory to Trace and Improve Multimodal Communication Design." *Technical Communication Quarterly*, vol. 18, no. 3, June 2009, pp. 281-301. doi:10.1080/10572250902941812.
- Salvo, Michael J. "Ethics of Engagement: User-Centered Design and Rhetorical Methodology" *Technical Communication Quarterly*, vol. 10, no. 3, 2001, pp. 273-290. doi:10.1207/s15427625tcq1003\_3
- Salvo, Michael J., et al. "Usability Research in the Writing Lab: Sustaining Discourse and Pedagogy." *Computers and Composition*, vol. 26, no. 2, 2009, pp. 107-121.
- Sun, Huatong. "The Triumph of Users: Achieving Cultural Usability Goals with User Localization." *Technical Communication Quarterly* vol. 15, no. 4, 2006, pp. 457-481.