

Online Focus Groups Used as an Accessible Participatory Research Method

Ted L. Wattenberg

Doctoral Student
Graduate School of Computer and Information
Sciences, Nova Southeastern University
Fort Lauderdale, FL
wattenbe@nova.edu

Adjunct Faculty/Accessibility Coordinator
San Joaquin Delta College
5151 Pacific Ave.
Stockton, CA 95207
(209) 954-5382

ABSTRACT

Participatory research methods are being used internationally to gather data on complex social, cultural, and political concerns that effect the use of technology [4]. Researchers have found it difficult to include people with disabilities in these studies [5, 6, 7]. The Accessible Learning Through Text-to-Speech Project will utilize online focus groups as a method of integrating people with disabilities into a participatory research project. The Alt-Learning Project will have three primary target populations; users of screen readers with vision, users of screen readers who are blind, and professionals responsible for the delivery of assistive technology. The online focus groups will allow the observation and collection of data as a participant would normally utilize their screen reader applications at home, school, or workplace.

Categories and Subject Descriptors

K.4.2 [Social Issues]

General Terms

Human Factors

Keywords

Participatory research, accessibility, universal accessibility

1. INTRODUCTION

Technology was seen as a key method for improving the quality of life for people with disabilities after the passage of the Americans with Disability Act in the United States and other legislation worldwide that was directed at helping people with disabilities overcome social inequities [5, 6]. Although accessibility standards have improved over the last fifteen years, employment rates and other measures of the quality of life for people with disabilities have worsened. Most people with disabilities are still isolated from the technologies that were supposed to have helped them integrate into mainstream society.

Researchers have found it difficult to include people with disabilities in studies concerning these problems. Participatory research has been shown to be effective in supporting people with disabilities [2, 3, 5, 6, 7]. Focus groups in particular have been

found to help people with disabilities participate in research activities by: 1) addressing their need to positively affect their own lives rather than accepting that others will do things for them; 2) providing positive group synergy and empathetic supportive; and 3) establishing an overall research culture that regards each participant as important and valuable to the study. But, researchers have still found it difficult to involve people with disabilities in focus groups that require the active presence of participants in a single location over a set time span. The Accessible Learning Through Text-to-Speech Project (Alt-Learning Project) will utilize online focus groups as a method of integrating people with disabilities into a participatory research project.

2. PARTICIPATORY RESEARCH METHODOLOGY

Participatory research methods are being used internationally to gather data on complex social, cultural, and political concerns that effect the use of technology [4]. The participatory research process is aimed at making technologies and social institutions more responsive to human needs. A critical component of the participatory process is the inclusion of the people that will be affected by the research into the study's methodology.

According to Gilbert, many research funding agencies, including governmental agencies, private foundations, and industry foundations now insist on the inclusion of people with disabilities as a condition for funding [1]. Working with people with disabilities poses special problems for researchers, including those involved with participatory methods. These problems include transportation, mobility, health, communications, conflicts of values, unequal power relationships, professionals' attitudes, and interpreting data from diverse populations [1, 3, 5, 6]. The following insights are suggested guides for the involvement of people with disabilities within a participatory methodology:

1. The participant's abilities should be assessed during the recruitment process to determine accommodations or other support services.
2. Participants should be recruited through existing groups, organizations, or nominations from others to ensure significant numbers of potential participants.
3. The primary researchers should gain practical experience with the target populations before trying to involve

participants in order to minimize cultural and attitude differences.

4. ONLINE FOCUS GROUPS

The Alt-Learning Project will investigate the underlying problems of usability and learnability of people utilizing screen readers as an assistive technology. The deliverables of the Alt-Learning Project will include a list of accessibility heuristics. The heuristics will be presented in a format so that they can be used by professionals responsible for the delivery of assistive technology to develop instructional strategies or for the matching of a technology with a person with a disability.

A key component of the Alt-Learning Project will be the inclusion of diverse stakeholders of the study as participants. These stakeholders will include both users of screen readers and professionals responsible for the delivery of assistive technology products. Fieldwork methods will utilize group interviews in the form of online focus groups. The online focus groups will allow the observation and collection of data as a participant would normally utilize their screen reader applications at home, school, or workplace.

The Alt-Learning Project will have three primary target populations; users of screen readers with vision, users of screen readers who are blind, and professionals responsible for the delivery of assistive technology. There are two categories of people with normal vision, those with learning disabilities or other reading problems and those people with difficulties with mobility that prevent them from being able to lift or turn pages of written materials. Of those people with vision problems there are five categories concerning when and how much of a vision loss exists.

There will also be online focus groups of people who are considered experts in the delivery of assistive technology. The ability of professionals to identify and measure both usability and learnability constructs will help them to correctly match a technology to a person with a disability, develop successful instructional strategies, integrate assistive technology within the workplace, or help users of screen readers perform higher order learning [5, 6].

A final focus group will consist of a presentation of the learnability and usability heuristics developed as outcomes of the preceding focus groups' findings. Participants of this group will be comprised of professionals responsible for the delivery of assistive technology. They will be asked whether the heuristics might be useful in improving the delivery of computer screen readers to people with disabilities and asked for suggestions to improve the accessibility heuristics. The validity of the study will be determined by whether the multi-disciplinary group of professionals using them considers the findings usable and trustworthy.

5. FUTURE RESEARCH

Further work is necessary establishing collaborative networks between centers researching assistive technology and the groups

and organizations that are closest to people with disabilities. These groups include independent living centers, schools, advocacy groups, community assistive technology centers, and family support agencies.

Long-term studies are needed on the impact that participatory research results have on the ability of people with disabilities to reach personal and employment goals.

While, this study explores the involvement of proficient users of screen readers as research participants, other studies are necessary to validate the ability to integrate novice users.

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