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Individual Reflection Assignment

I had a conversation last week about the process of doing usability research with my participant after we finished the interview. She had mentioned that I maybe went too far in suggesting which items she should purchase during the observation. She comes from a qualitative research background and thought that an observation should be unstructured: an observer should find a participant and stay out of the way. I understood her position, but I reminded her that I only had time to observe one person running through the system, and to get the most out of the observation I wanted to see that person attempt the actions that we were trying to study. I explained that if I left it to chance and the participant didn't attempt to do any of the actions that I wanted to observe, then I wouldn't collect any data. This discussion was representative of some of the larger questions that I came into the course with. Certain approaches stress rigid formality in interactions with users, while other approaches treat usability tests as data gathering activities. I think that one of the major changes in my attitude this semester was to stop thinking about usability testing from an experimental design perspective. The approach that I found most useful in learning usability research methods was acquiring practical experience which taught me that careful planning is critical, but ultimately cannot account for every contingency. This paper will highlight some of my reflections on how I came to adopt this attitude through my experiences in this course.

The first instrument we constructed for our group project was our survey. We began by considering Neilsen's (1993) five basic dimensions of usability. From there, we brainstormed areas of inquiry that fell within those dimensions, later using those areas to construct basic

research questions that we wanted to answer. For our survey, we outlined four basic areas that we were interested in: user satisfaction, procedures, error rate, and demographics.

At the time, I had been very concerned with sample size and obtaining representative demographics through using appropriate sampling methods and selecting appropriate sample frames. I think my fixation on these aspects of the survey were a direct result of the discussion of sample frames and sample sizes in Kuniavsky (2003) as well as the discussion of what statistical analysis needs to be completed prior to fielding a survey in Cresswell (2002). Their formal treatment of the pre-survey sampling method in combination with my prior experience with survey design in a research methods course led me to think of surveys a scientific instrument that need extensive research into potential user demographics. As a result, I may have worried too much about who would take the survey and whether the results would be statistically significant, something that was not useful in the survey design phase.

One key error in our process for designing the survey was the nebulous definition of the term "error rate." Although my group was well aware from readings and in-class discussion that surveys only measure user perception and do not describe behavior, we somehow made the determination that "error rate" could be measured through a survey instrument and later compared to other user responses. Only after fielding the survey and during a review of our survey justification document did I have a moment of realization that error rate was a term that we didn't adequately define. Per our in-class discussions about the survey write-up, this may be a situation where the value of precise definitions of terminology and iterative question revision can only be learned through experiencing a mistake in the design process.

I also believe that a better understanding of statistical relationships prior to designing the survey would have been valuable. Our team had a limited understanding of which statistical

analysis methods would be used to demonstrate connections between user responses, hence we may have overlooked some obvious problems in not only our question writing, but also in our structuring of input for the survey (substituting qualitative fill-in-the-blank text boxes where we really wanted quantitative "bucket" responses). However, this shortfall revealed the need to carefully consider not only what information you want to learn, but how to ask for user feedback so that the results contain data that is apt for analysis.

For our observation and interview, I felt more relaxed about the approach in spite of the very formal approaches of Kuniavski (2003). I recognize that his book is written for practitioners, but his imperative writing style and formal approach seem predicated on a corporate setting rather than an academic exercise. Likewise, Rubin and Chisnell (2008) recommend a veritable army of team members to conduct user observation, which also seems geared toward a corporate setting. The information I found most helpful during my own interview was your demonstration of various interview styles with Pete in class. Seeing you demonstrate interview techniques and watching how you adapted your questions to fit Pete's responses provided a framework on which to construct my own interview techniques more so than reading about conducting interviews in a corporate setting as a usability professional.

Our group constructed a detailed interview and observation guide with a multifaceted coding system for interviewers and observers. I learned through practical experience that a multipage interview guide is not especially helpful after the planning phase. During the observation, I found myself frantically flipping through different sections of our guide and trying to find the appropriate blanks in which to write down observations. Afterwards, when I conducted the interview, I was doing the same thing, trying to make sure that I wasn't leaving out follow up questions. The design of our guide was too complex, and I decided to deviate from

the prepared questions halfway through the interview when I noticed that there were awkward

pauses where I was rereading the guide in an attempt to make sure I wasn't leaving any questions

out. I eventually just started asking unscripted follow-up questions related to our top-level

questions. After I left the prepared format, I had the opportunity to try out the ladder technique

described in Hawley (2009) (and demonstrated by you in class) to identify a core value about

why my participant uses self-service kiosks; it was the most exciting and insightful moment for

both the interviewee and myself. This more unstructured, conversational approach towards

interviewing modeled on your in-class demonstration was demonstrative of the fact that

developing elaborate methods is not necessarily the best way to obtain the information you are

looking for from users. Part of our enthusiasm for coding may have come from the heavy

emphasis on forms and fear of an unmanageable heap of data transmitted by the readings

(especially evident in Stone et al. (2005)). While forms are probably useful for large scale

observations where consistency and creating manageable data are crucial factors, they were

generally cumbersome in our small scale observation project.

　　　The competitive analysis portion of the project resulted in unique difficulties that I

believe are related to underlying assumptions about this method of usability research. I

structured my comparative analysis of a competitor's kiosk (in my case, Home Depot) using

Brinck, Gergle, and Wood's (2002) approach of isolating user actions, then comparing how users

perform those actions on competitors' sites (as well as comparing different ways of performing

that action on the client's site); however, with Brinck, Gergle and Wood's approach, as with

many of the approaches in the readings for this course, I think there is an inherent assumption by

the author that the reader is studying a website or software product in a controlled setting that he

or she has unlimited access to. In our group project, we faced a unique situation in that we were

conducting a study without stakeholder support which placed us on the fringes of usability testing, far from the ideal settings described in our readings. For example, I would have liked to spend more time looking at the different menus in the Home Depot kiosk, trying to check out with different types of items, etc., but I felt pressured after spending three minutes purchasing one item to complete my transaction.

This brings me back to my original dilemma that I mentioned at the start of this reflection: is usability research a controlled laboratory exercise or an exercise in information gathering, regardless of the setting, budget, or constraints? Despite our in-class discussion of Kuniavski's "Do a Usability Test Now!" suggesting that researchers just jump in and start observing users, I don't feel like his methods were specifically approachable for non-practitioners and I'm not sure after reading his book that he or some of the other authors addressed the unique concerns of my group (perhaps there is an opportunity for writing a textbook that guides novices through the process of usability research). Fortunately, our in-class discussions helped supply that missing element of how to conduct usability tests in the context of our course project and supplemented the formal approaches we used during the various planning phases of our project.

As a closing thought, this tension between standards for practitioners and theoretical concepts that can be applied regardless of setting (corporate or academic), budget, or personnel seems to be a recurring theme across the courses I have taken at IIT. I appreciate the practical experience afforded by the group project in this course and I find that the experiences I have had when reflecting on my group's methods with you in class and with my group members have provided ample opportunity to learn about the standards and methods that are sometimes idealized or limited to controlled situations in user experience texts.

References

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