**Assignment #4: Analysis and Consolidation of User Needs**

Group 6

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INSC 430: Foundations of User Experience

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# **Product Concept Statement**

MyUTK (myutk.utk.edu) is a website at the University of Tennessee, Knoxville (UTK) that provides students access to all the information about college careers and grades. While the system facilitates many student needs in one place, it can overwhelm students with a plethora of unnecessary information and links. Ideally, myUTK should allow students to easily find, use, and accomplish their task goals.

The redesign of myUTK will include the most commonly used links by students in the forefront, while relocating less commonly used or needed resources such as the messages tab, address tab, and student success tab to clearly notated, searchable spaces. Integral features such as an improved financial hub and an academics information page will be added. These design improvements will make user interaction more efficient and provide a more satisfactory user experience.

# Search Tasks

The two search tasks provided to users are as follows:

1. You are applying for an external scholarship for the upcoming year. The application requires you to submit your GPA. Use the myUTK system to find your most recent GPA.
2. Your advisor has accidentally locked themselves out of their account, and they need you to find your class schedule so that you can register for classes next semester. Find your full roster of classes from your last Fall/Spring semester.

Due to FERPA restrictions, in the first task, participants were specified to show us how they would complete the tasks but stopped before showing their GPA information to the interviewer.

# Demographic Information

The demographic/background information collected were as follows:

* + 1. Age
    2. Gender
    3. Major
    4. Year
    5. Level of experience using the Internet (Limited, Proficient, or Advanced)
    6. Level of experience using myUTK (Limited, Proficient, or Advanced)

All of the participants in this study were students, but they ranged in age, gender, major, year, and experience. There were 10 participants total, with 5 males, 4 females, 1 non-binary person. The ages ranged from 20 to 26 and the level of experiences ranged from proficient to advanced, with 8 reporting advanced and 2 reporting proficient experience with the internet. For experience with myUTK, 5 reported advanced and 5 reported proficient. The participants were 8 STEM majors and 1 humanities major, with 2 sophomores, 5 juniors, and 3 seniors.

# Interviews

# These interview questions asked during the inquiry were as follows:

# What do you use myUTK for?

# What section of the website are you drawn to first?

# How often do you use myUTK in a week?

# What features do you consider to be useful for you as a student?

# Did you know of other ways to find the requested information?

For question one, the common uses by participants were finding information about grades, classes, financial accounts, and advising. Students use myUTK for a variety of reasons and it serves as a dashboard for many user needs. Participants reported using myUTK to check their grades, schedules, student ID numbers, and financial information. Additionally, participants reported using the system for checking their DARS report and registering for classes which helps them stay on track in their degree programs. Students also reported using the system for links to Canvas or other resources.

At first sight, participants were drawn to several aspects of the system. Some were drawn to the messages section and canvas links. Others were drawn to the more information-rich sections that feature student or financial information. Since the dashboard has many sections, it is understandable that users would be drawn to a section that correlates with their most common use of the system.

On a weekly basis, users will visit the dashboard once, twice, everyday, and some not even once. This variation depends on the needs and context of the use for the user. Users only using the system to register for classes and run DARS reports use the system significantly less frequent than users that use the system for notable quick links (i.e. Canvas, VOLmail, etc.)

Though myUTK has many features, the most often utilized features involve checking schedules, quick tabs, add/drop classes, and the DARS report. Participants also reported that having Canvas access and being able to see student ID numbers and registration dates from the dashboard was important.

When asked about alternative methods for finding the information requested in the search tasks, some participants were unsure or did not feel that it was a priority. However, other participants detailed other methods showing that the system provides several ways to complete a single task.

# Observations

While all of the participants were familiar with the system, as it is a part of their student experience, the frequency of use varied quite a bit. This could be seen when observing users complete the tasks asked of them. For example, one user, who engaged with the system once every two weeks, hesitated slightly and clicked on a few of the main tabs before finding the subsection they knew could complete the task, while a semiweekly user of the system completed the task immediately and without hesitation. Many of the users observed, took note of the sheer abundance of information found on the myUTK website, but lamented that much of this information they didn’t routinely use or seek out. The tasks we asked of our users fall in line with information that is routinely sought out, so every user we observed completed each task with very little to no difficulty, using 2-3 clicks, and accomplishing the task in under 30 seconds. Most of the users could even detail multiple methods for completing the same task.

# User Actions

As discussed, there are many methods to accomplish the search tasks. When asked to find their GPA, a common route used by participants was going to the “My Resources” link in the drop down menu, then clicking “View Grades”, then selecting the term as “All Terms”. This method uses three to four clicks and around fifteen seconds.

A common method used to find a previous semester’s class roster was scrolling down on the page, locating the “My Schedule” section, and clicking the “previous term” button twice. Then some users produced a pdf version, and some were satisfied with the current state. This method uses two to three clicks, and around ten seconds.

1. **Work Activity Affinity Diagram Process**

[**WAAD URL**](https://jamboard.google.com/d/1RxMwVkcwISZz2XZTsg2JGVBuI6T6q6AaHrQIPV-lvlM/edit?usp=sharing)**:** [**https://jamboard.google.com/d/1RxMwVkcwISZz2XZTsg2JGVBuI6T6q6AaHrQIPV-lvlM/edit?usp=sharing**](https://jamboard.google.com/d/1RxMwVkcwISZz2XZTsg2JGVBuI6T6q6AaHrQIPV-lvlM/edit?usp=sharing)

The process for creating a Work Activity Affinity Diagram started by inviting all team members to add to the collaborative Jamboard. Each group member added their activity notes from analyzing their interviews and user observations. The activity notes were sorted in categories based on interview questions and search task methods. The categories used were “Common Uses” which relates to the first interview question regarding common uses of the system, “At First Sight” which relates to the second interview question regarding which parts of the system the user is drawn to first, “Use Frequency” which relates to the third question, “Useful Features” which relates to the fourth question, and “Alternative Methods” which relates to the fifth question. Other categories we pulled out from the data are “Time to Complete Task”, “Clicks”, and “User Feelings” based on observations gathered from the interviews.

**VIII. Team Member Reflections**

James McKoin:

This is my second time being part of constructing a WAAD from contextual inquiry data, but this time there were more participants and group members to collect data from and analyze information with, respectively. The large set of data collected from a broad range of demographic backgrounds made compiling the information interesting and sometimes challenging. I think the most challenging part was coming to a consensus on the best way to categorize the WAAD. Our final result was heavily influenced by the questions asked during our interview portion, but I think some of the other notes contributed to the WAAD could be organized in a few different ways. I believe that is just the nature of group work. Concessions are made with your personal vision for how different aspects of the assignment should go, but you are often benefited from multiple perspectives looking at similar issues. In the future, I think I would pose a more difficult task for the user to complete. It would have been interesting to deal with a situation where multiple participants failed to complete a task asked of them. Formulating a difficult task would have been counterproductive for our purposes, of streamlining the most often used and most helpful features but could potentially bring about interesting design decisions.

Alexandra McFall:

When it comes to analyzing the data from interviews and creating a WAAD, I do have prior experience with both from doing them in other classes. What I found out about, from analyzing the interviewees’ data, is that you need to pay close attention to the actions of your interviewees so that you can better understand their behaviors and the way they interact with the webpage. What I found difficult about this was trying to summarize the interviewees’ behaviors in order to describe them on the WAAD. The thing that I found challenging was finding the right time to question my interviewees on their behaviors and actions. I enjoyed working in a group for this assignment because it allowed me to see what the other team members observed from their own interviewees’ perspectives. If I were to attempt a similar project, the one thing that I would change would be to ask the interviewees more questions about their behaviors and their overall thoughts on the website.

Makayla Lerner:

Though I have created a WAAD before, this one was more interesting to me as we had more moving parts or work activities than I was used to. It was engaging and enjoyable to complete the diagram and discuss the results with my team members. It was important to be able to experience this process on a system that we use all the time. I felt the frustrations of the users in the study along with my fellow team members who all would like to see the system improved. I thought it was interesting to see the array of different backgrounds from our participants, we have several non-traditional students involved, or ones that are older than I was expecting. I think those students were important inclusions that I did not think about. It is definitely interesting to see students that have decided to go back to school or transferred from somewhere else and discuss their experience with this system. The system holds a lot of important information and is pivotal to the academic experience at UTK so being able to see how different types of students interact with the system is very interesting. As always, my team was incredible and I look forward to working with them more.

Calder Novak:

I learned a lot from completing this assignment because of the hands-on element of performing contextual inquiry. My past experience with gathering user needs in INSC 311 was limited to just asking users simple questions instead of observing them using the system. While that method can still produce good data, this assignment in 430 helped me to better understand the process and the advantages of using contextual inquiry. The only difficulty I faced during this assignment was finding times to meet with my participants, but it was a small issue overall. I was surprised, however, at how quickly the tasks were completed by my participants. This is most likely because they already had three years of experience using myUTK, but I was still able to get useful information from their studies despite that. In future projects, I would definitely try to ask more questions during the contextual inquiry to get a better picture of what the participants were thinking as they completed the task. I might also try to find participants with more variety in demographics, because during this assignment both of my interviews ended up being very similar. Other than those small issues, I think this assignment was very informative and interesting.

Matthew Tarnoff:

Throughout this assignment, my group and I had access to learning around consolidating multiple user interviews, data groups, and needs, along with the new experience of reviewing user interviews for more in-depth analysis of data. This assignment, therefore, gave a numerous amount of insight to the latter half of user interviews and data collection and consolidation. As for difficulties that I had with the project, there weren’t many, but in the few problems that did occur, there were many issues. Namely, that was in locating and replaying the interviews I had made and using the software known as Jamboard to create a WAAD. While Zoom and Jamboard are useful for doing things online with a group, their organizational structure could use plenty of work, namely in working with sizing, file location, and organization. It was also somewhat difficult to organize the work and meetings for said work given the tumultuous nature of the semester. On working in a group, I found it as usual, given that we are the same group. We get along relatively well, and everyone carries their weight. Next time I work in a group, I would prefer to meet earlier in the process, but the current process is fine as is.

**Time and Contribution**

Table 1: Distribution of Time and Effort by Team Members

| **Team Member** | **Time and Effort Percentage** |
| --- | --- |
| Makayla Lerner | 20% |
| Alex McFall | 20% |
| James McKoin | 20% |
| Calder Novak | 20% |
| Matthew Tarnoff | 20% |