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Academic Website Research Study

A project on focusing on data analytics and interpretation

Project Overview

The following project is a study into how students interact with their respective institutions academic websites. It follows up on the research phase, quantifying the data obtained for further analysis.

It includes the following methods of data analysis followed by a interpretation report.

- User Demographics
- User Website Usage and interaction
- Thematic Analysis
- Interpretation Report

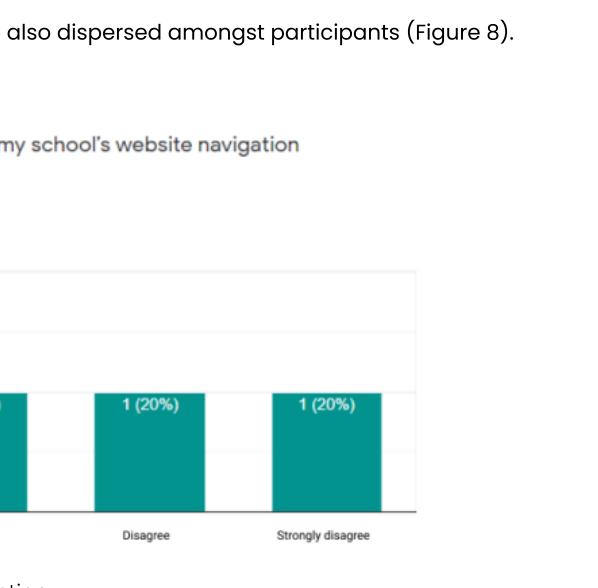
User Demographics

All demographic data was collected through the post-interview questionnaire. The study was conducted with 5 participants and were asked to identify their age group, gender, and year of study. According to the results, study participants were female (40%) and male (60%) college/university students (Figure 2) within the age range of 20 to 23 years old (Figure 1).

Figure 1: Participant age group



Figure 2: Participant gender



User Website Usage and interaction

3 out of 5 participants were in their 3rd year of study in a post-secondary institution, while the remaining 2 participants were in their 1st and 2nd year of study (Figure 3). Additionally, the majority (3 out of 5) of the participants attend Ryerson University, while the remaining 2 attend the University of Toronto and Centennial College (Figure 4).

Figure 3: Participant year of study

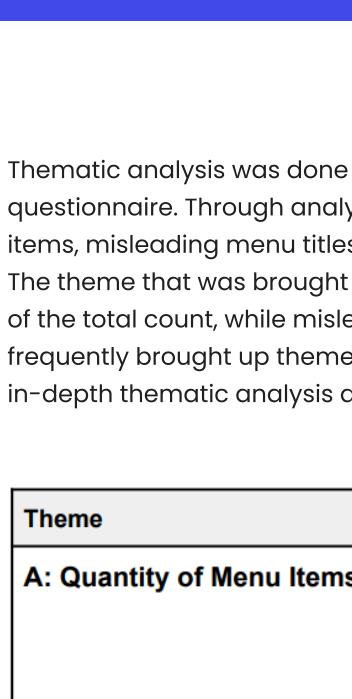


Figure 4: Participant educational institution

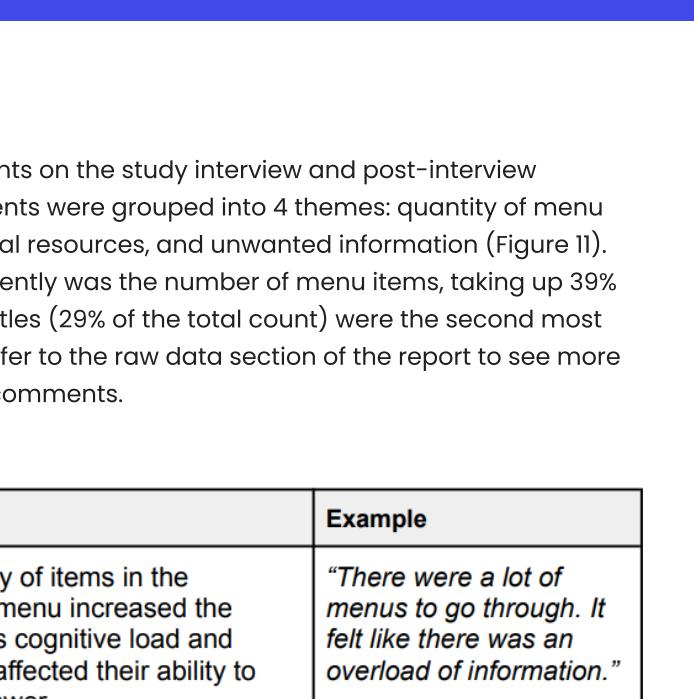
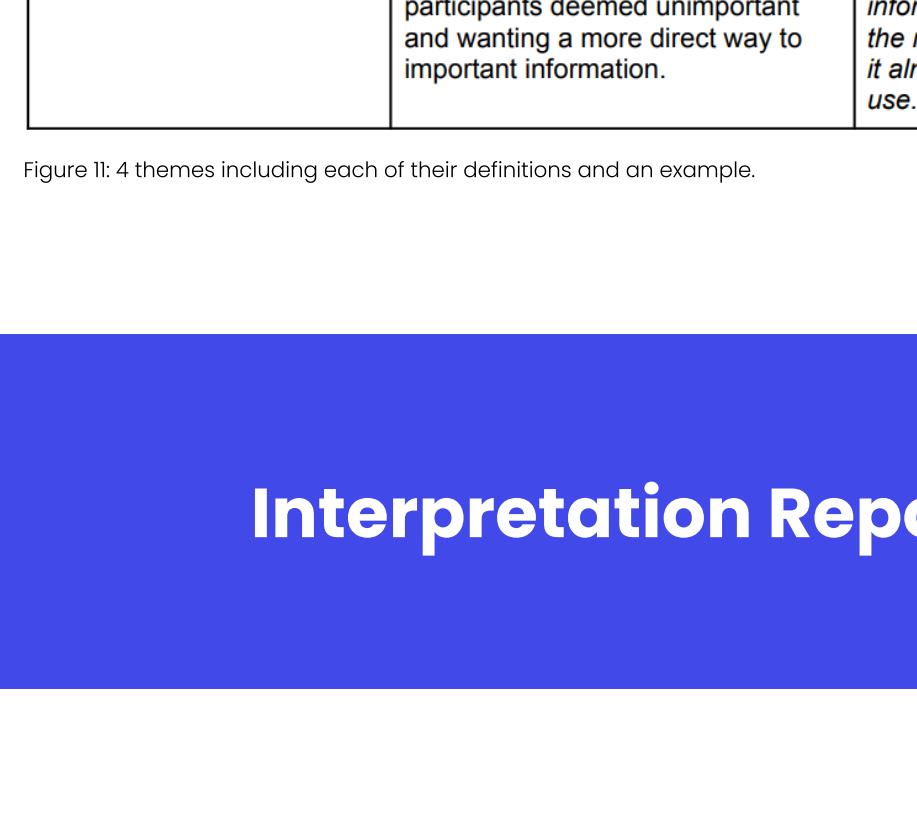


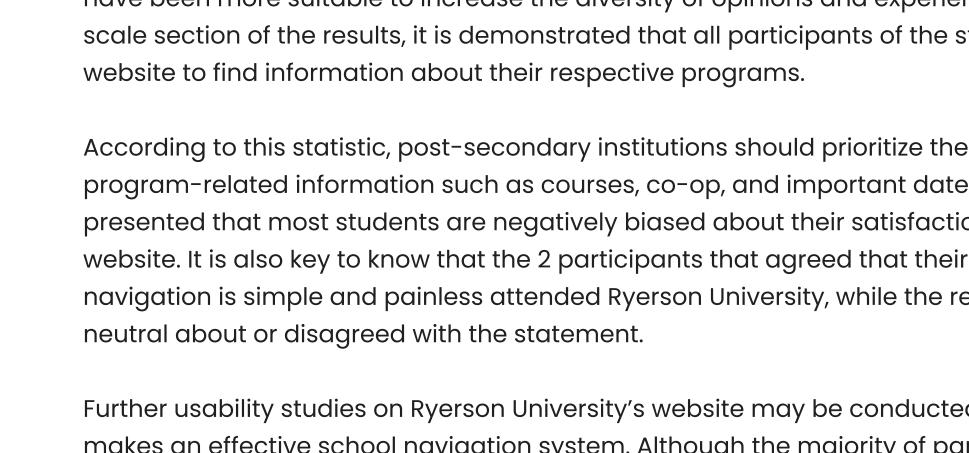
Figure 7 shows that school website satisfaction ratings were dispersed amongst participants (1 satisfied, 1 neutral, 2 dissatisfied, and 1 highly dissatisfied).

Figure 7: Participant school website satisfaction



Similarly, school website navigation satisfaction we're also dispersed amongst participants (Figure 8).

Figure 8: Participant school website navigation satisfaction



During the interview, participants were asked to find the answer to the question "what is the last date to withdraw from a course without academic penalty" without using the search bar. Only 1 out of 5 participants was not able to complete the task (counted 4 as 10 minutes), while the remaining 4 were able to find the answer under 6 minutes (Figure 9). Therefore, the average amount of time to complete the task was approximately 4 minutes 52 seconds.

Figure 9: Time taken for each participant to find the answer in minutes

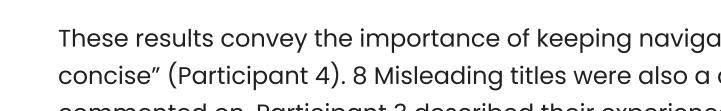
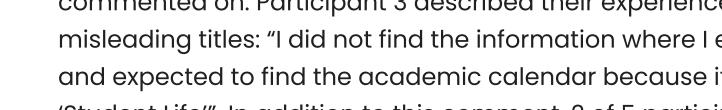


Figure 10: Time taken for each participant to find the answer in minutes



Thematic Analysis

Thematic analysis was done using comments on the study interview and post-interview questionnaire. Through analysis, all comments were grouped into 4 main themes: quantity (menu items, misleading titles), use of external resources, navigation, and unwanted information.

The theme that was brought up most frequently was the number of menu items, taking up 39% of the total count, while misleading menu titles (29% of the total count) were the second most frequently brought up.

Thematic analysis and in-depth thematic analysis and all coded comments.

Figure 11: 4 themes including each of their definitions and an example.

Theme	Definition	Example
A: Quantity of Menu Items	The quantity of menu items in the participant's cognitive load and negatively affected their ability to find the answer.	"There were a lot of menu like there was an overload of information."
B: Misleading Menu Titles	The titles of the items in the navigation menu are misleading and participants feel leading while navigating through the website.	"I clicked on programs and expected to find the academic calendar to correlate together, not Student Life."
C: Use of External Resources	The participants relied on external resources to access information about their school.	"I usually just Google or trying to Reddit through the website."
D: Unwanted Information	The menu bar contains what participants deemed a more indirect way to important information.	"The amount of useless information that made it almost impossible to use."

Figure 11: 4 themes including each of their definitions and an example.

Interpretation Report

In regards to demographic information, it is shown that participants of the study are male and female post-secondary students between the ages of 20 to 23 years in their 1st to 3rd year of study. As this is the most common age of undergraduate students in post-secondary school, it can be seen as an appropriate population sample for this study.

However, school websites have a variety of different stakeholders such as applicants, parents, faculty, employers, etc. Therefore, it is important to remember that the results of this study may not be reflective of the experiences of other stakeholders.

Similarly, 60% of participants attended Ryerson University, which may also be seen as a limitation of the study, recruiting participants from different educational backgrounds may have been more suitable to increase the diversity of opinions and experiences. In the rating scale section of the results, it is demonstrated that all participants of the study use their school website to find information about their respective programs.

According to this statistic, post-secondary institutions should prioritize the accessibility of their website. It is also key to know that the 2 participants that agreed that their school website's navigation is simple and painless attended Ryerson University, while the rest were either neutral about or disagreed with the statement.

Further usability studies on Ryerson University's website may be conducted to pinpoint what makes an effective school navigation system. Although the majority of participants were successful in this task was a difficult process due to 3 main reasons: quantity of menu items, misleading menu titles, and unwanted information.

Thematic analysis was conducted on the comments raised during the study, but it's not yet proved to be reliable. Throughout the study, the overwhelming quantity of menu items was consistently brought up by the participants. For example, participant 2 stated that they felt as though there was "an overload of information" and participant 5 similarly added that "the menu is overwhelming to look through each option and think hard about the question they were trying to answer to find the information [they] wanted" including too many options in a navigation menu increases psychological stress and cognitive load for users, both strong indicators of poor website usability.

These results convey the importance of keeping navigation menus "streamlined, minimalist, and concise" (Participant 4). 8 Misleading titles were also a common theme that the participants commented on: "did not find the information where I expected to be in the website due to misleading titles," "did not find the academic calendar because it seemed to be correlated together, not Student Life". In addition to this comment, 2 of 5 participants indicated in the post-interview questionnaire that the biggest factor as to why they found the task wrong heading (Student Life).

Many participants expressed that the overwhelming amount of unwanted information in the menu bar made it "almost impossible" and "very frustrating" to use (Participants 1 & 2).

These comments illustrate that navigation menu bars should only include the most vital information for its stakeholders. To add, one participant had difficulty navigating the website because there was an abundance of unnecessary graphics which made it slow, making it unsuitable for users who have slower machines.

Participants frequently brought up that they rely on external resources such as Google, Reddit, and emails to access the information they need instead of going to their school's website. "I usually just Google it or search it up on Reddit. Even then, I still feel like it's hard to find. I don't feel like university or much of an effort to make this information easily accessible for students" (Participant 4). "I have had to email the school on several occasions because I could not find information" (Participant 3). Users should not have to rely on external resources for information as educational institutions' website's main purpose is to fulfill that need. The results of this study make it clear that educational institutions and efficient navigation systems should be the standard for educational institutions.

Figure 12: 4 themes including each of their definitions and an example.