

Note-Taking Application Case Study

Context

Project Type

User experience research for SI 422, Usability Needs and Evaluation

Role

UX Researcher

Timeline

February 2023 - April 2024

Team

Sooyoung Jo

Scope

UX Research

Methods

Interviews, Field Study, Affinity Diagramming,

Objectives and Rationale

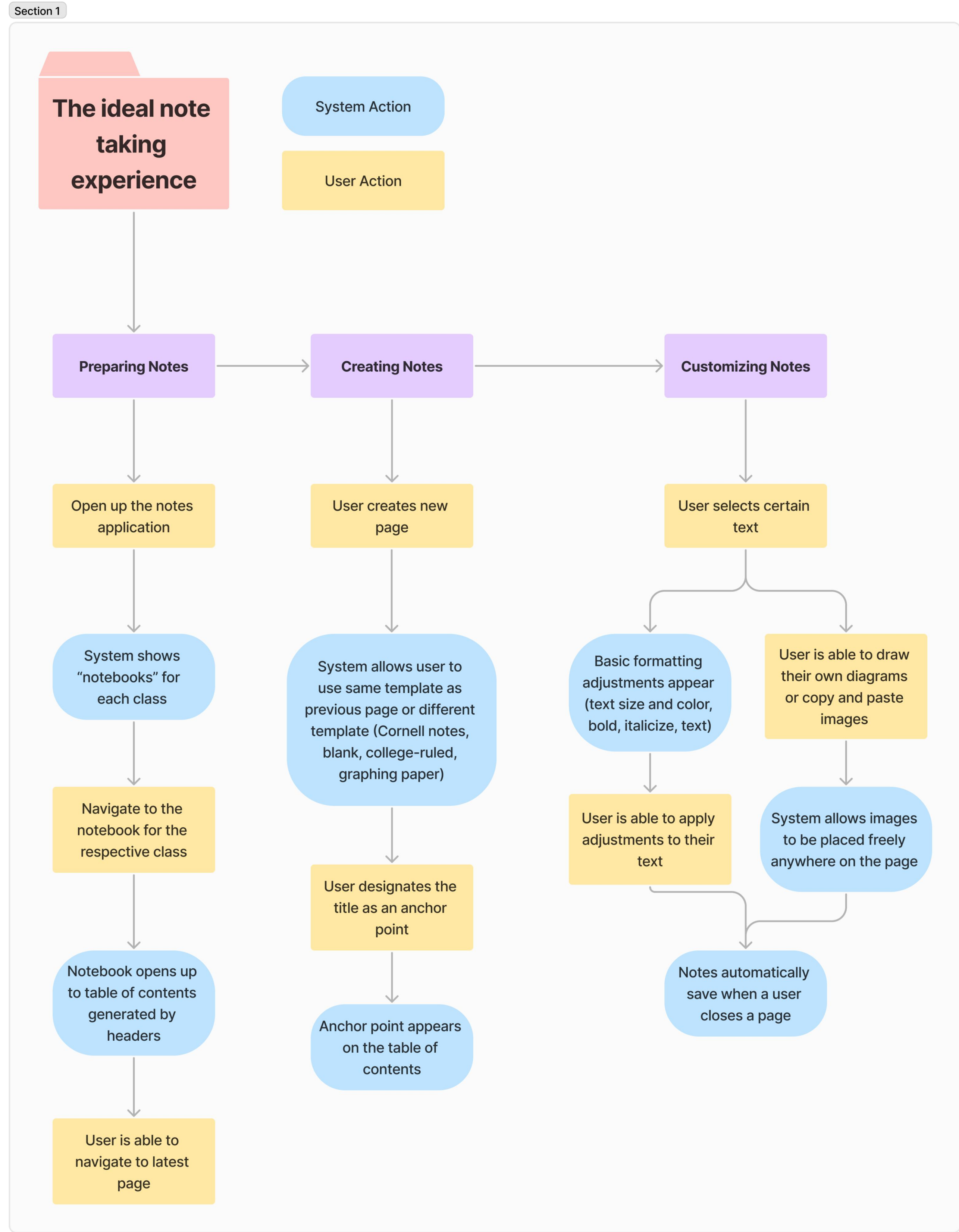
The objective of my research was to determine the ideal note taking interfaces for the widest variety of students students. To answer this questions, I wanted to learn about the typical note taking habits of students, what features of their current note taking interface they use, what features they wish they had, and what they typically use their notes to do. This research would help me determine what the product should look like in order for it to be easy to understand, as well as what features should be implemented.

Research and Methods

I interviewed five people. Each interview was 30 minutes long, preceded by the 15 minute field study period. During this period, I would silently observe how users would regularly take notes as though they were reviewing class materials. I ask questions about what features they used, past experiences with different interfaces, which format they used to take notes and why, and what they valued most while reviewing. There were some variation in follow-up questions depending on how each interviewee responded. For instance, two interviewees mentioned the importance of color, so several questions were asked regarding why this was important and their experiences with color.

Of my five interviewees, four were SI 422 students from the University of Michigan, and one was from Deakin University in Melbourne, Australia. They were useful because they covered a variety of majors, with one computer science student, one education student, one communications student, and two Art and Design students, so we were able to make sure that the data would apply to students from many fields of study. In addition, of my interviewees, 3 used their laptops to take notes while 2 used their tablets, so I was able to gather data across a variety of hardware to make sure that the application would be accessible to users to either technology.

Deliverable 1: Ideal State Task Analysis



Deliverable 2: Persona

Bio:

Bella is a student who recently switched to taking digital notes as she believed her notes would be safer and more accessible. As a result, she still writes her notes by hand using a tablet pen, as it is what she is used to. She would like to replicate most aspects of her note taking process, such as underlining, making bullet-points, and using a variety of colors, just as quickly and as freely as she used to. She is also eager to try out some of the freedoms of a digital note, such as copy and pasting images and better organization.

For most classes she will take notes during lecture, but if a professor is particularly fast or if there is a lot of information on the slides, she will choose to take notes on the slides instead. To prepare for major assignments, and exams, she likes to create a grand study sheet. Sometimes she makes these sheets with her friends, so she'd like to share her notes as well. When she reviews, she would prefer to be able to find the necessary content quickly and efficiently.

Goals

- Like many other students, Bella values her grades and wants to make sure her time spent taking notes are efficient.
 - She'd like formatting her notes to be consistent and fast to maximize reviewing time.
 - She would like her notes to be easy to navigate, if she wants to find a certain topic.
 - She sometimes studies with friends in the same class, so she'd like to share her notes with others.
 - She would prefer the ability to take notes by hand over typing them, as she believes this maximizes retention.

Frustrations

- Bella has used other notes interfaces in the past, and has run into some problems she would like to avoid.
 - She dislikes pens that are more or less sensitive than she would like, as this distracts her from the note taking process.
 - She cannot pay to have additional features in app. As a student, she does not have access to many financial resources.
 - She doesn't want her notes to be locked to one device, so she can review her notes no matter where she is.

Name: Bella | **Age:** 20 | **Major:** Psychology
Time spent in class: 6 hrs / week
Time spent studying outside of class: 20hrs / week
Device used to take notes: Tablet

Personality

- Somewhat impatient
- Practical
- Creative
- Curious

Needs

Convenience: [Progress bar]

Accessibility: [Progress bar]

Customization: [Progress bar]

Speed: [Progress bar]

Key Takeaways

Users should be able to...

- select from a wide variety of templates for pages
- designate anchor points that they can quickly navigate to
- apply basic formatting adjustments to selected text
- place their own diagrams or copy and paste images anywhere on the page
- share and edit their notes with classmates
- view their notes from many devices
- use all features without having to pay

Limitations

There was no variety in gender, as all my interviewees were female, and there were no students from the natural sciences and humanities. There was also little variety in nationality, as four of my five interviewees were American. Instead, my interviewees were often those that were most easiest to interview, meaning that there was convenience sampling. This means that my interview data may not be representative of my target audience (that is, college students). While it would have been more time-consuming, I could have made the sample more random and thus more representative by reaching out to a wider variety of students across many different classes and extracurriculars.

One situation that my data failed to capture was the behavior of students during lecture. Because it would be extremely difficult to coordinate visiting students at their lecture halls, I could only perform field visits of students reviewing their notes after lecture, and failed to gather data of students during lecture. Any information on in-lecture behavior was gathered from responds to questions. This gives rise to two types of bias. The first is convergence bias, because this aspect of note-taking was not recorded at all. The second is selective recall bias, in which participants were more likely to recall events that provoked emotional extremes rather than average, everyday ongoing. A way to avoid both types of bias would have been to find a way to accompany students and observe their behavior during their lectures, though this likely would have taken a few weeks to complete. Alternatively, I could have provided a recorded lecture video and asked them to take notes on it as though they were in lecture, though this may have another side effect of throwing subjects in an unfamiliar situation, skewing the results.