ALEX LEVY

PORTFOLIO PRESENTATION

How I design (and think)

Optimal Assessment

Skills

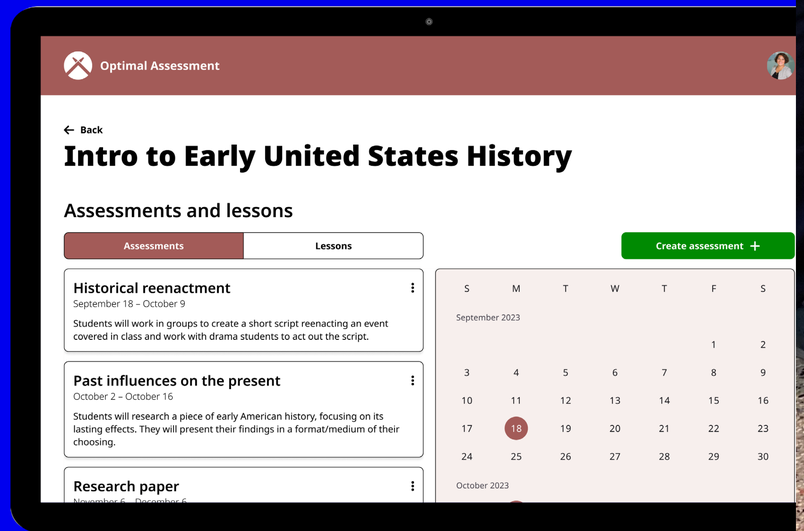
- Business
  - Entrepreneurship
  - Pitching
- User research
  - User testing
  - Survey conduction
  - Secondary research
- UX design
  - Information architecture
  - Persona & journey map
- Visual design
  - Design system creation
  - Branding
  - Prototyping
- Content design
  - UX writing
  - Example user input

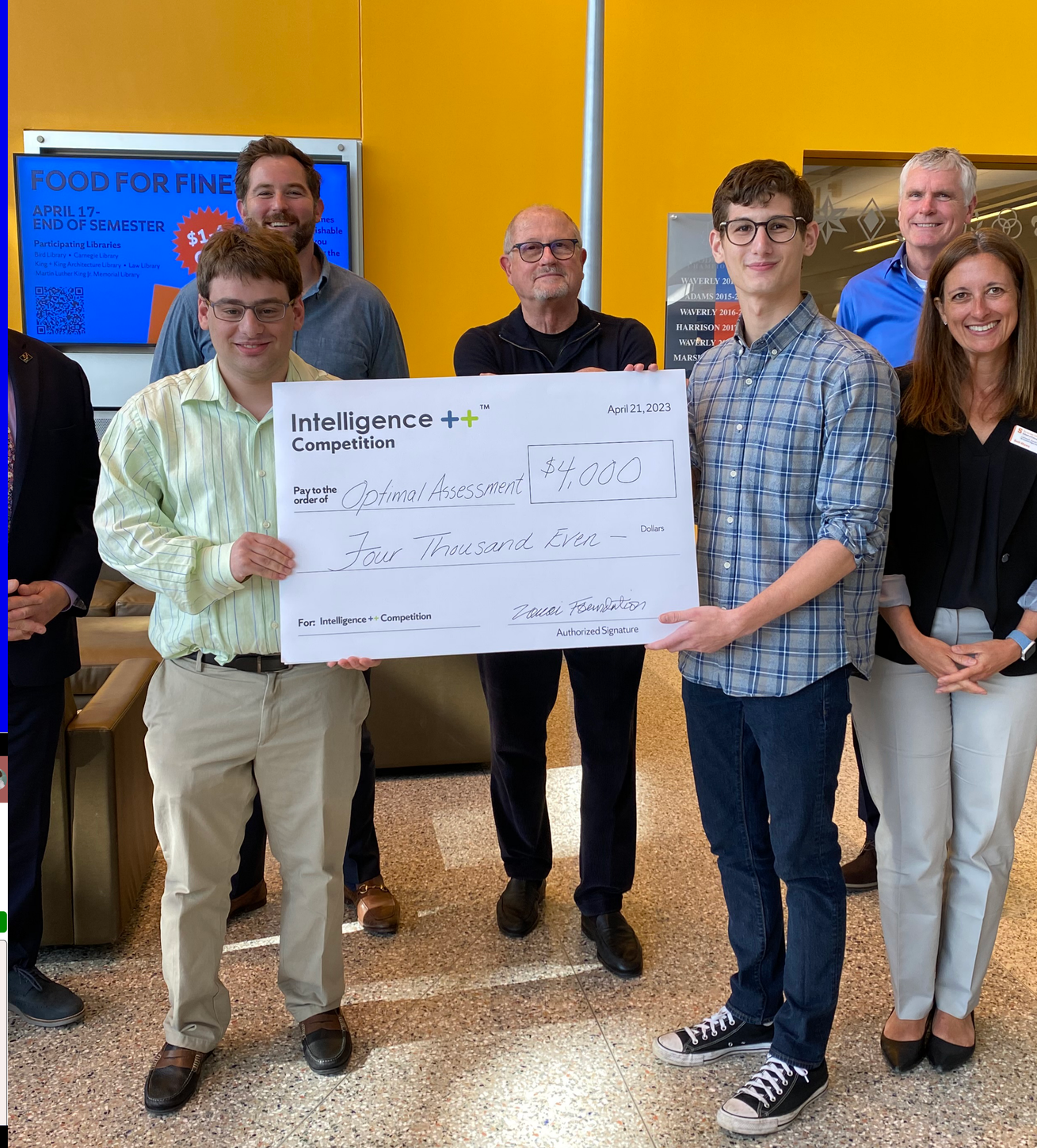
Roles

- Me (product lead)
  - Co-founder
  - UX designer
  - Visual designer
  - User researcher
  - Content designer
- Partner (business lead)
  - Co-founder
  - Market researcher

Tools

- Figma
- FigJam
- Google Forms



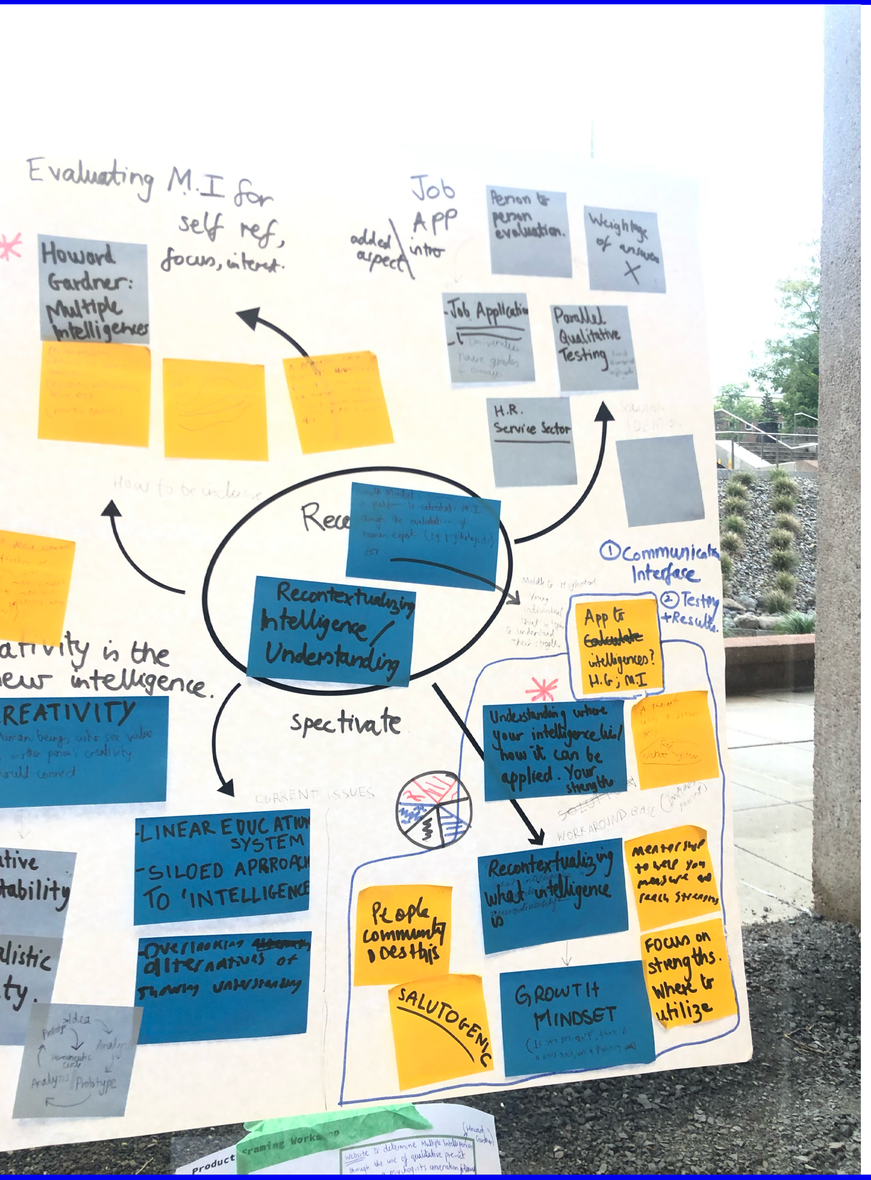


Alex Levy

My process

As you know, the design process is almost never very neat or linear. But unfortunately, a table of contents is.

The context

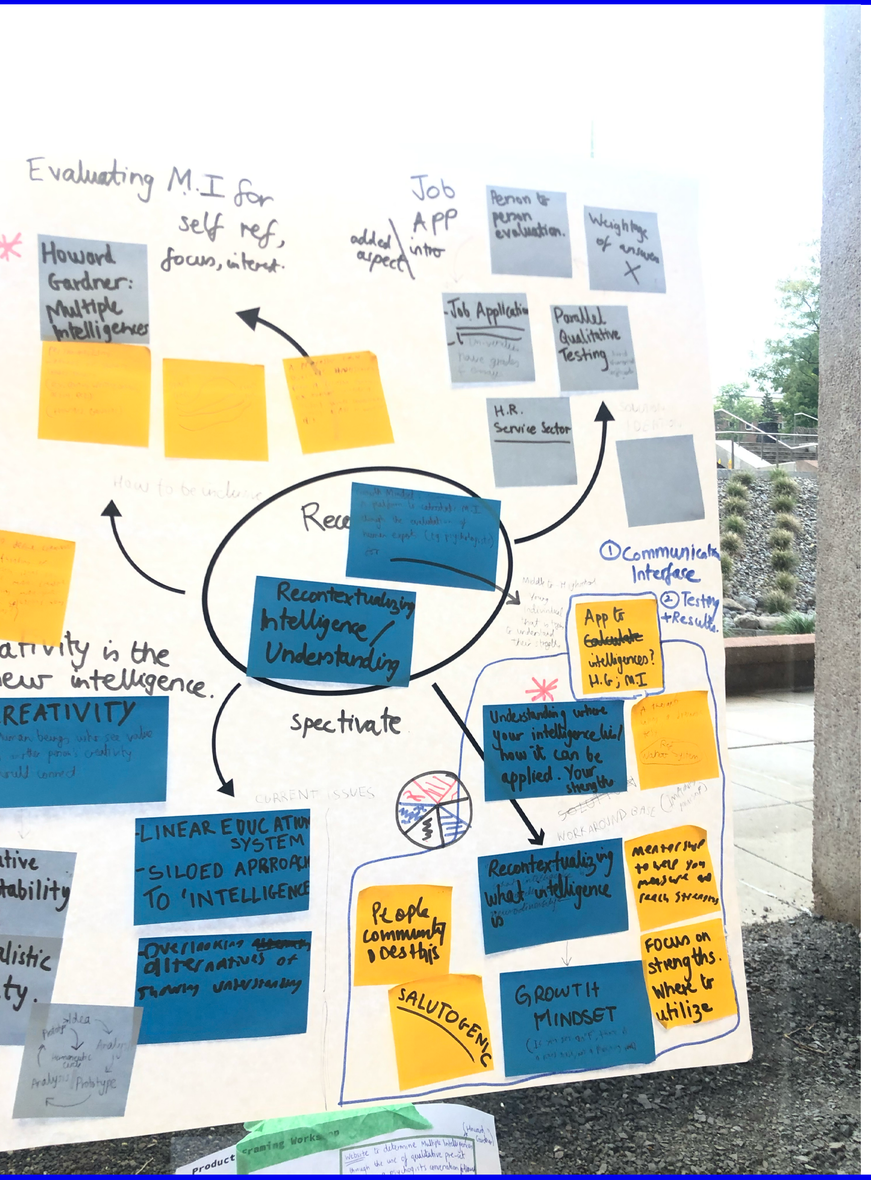


This project began at a design-led hackathon themed around designing a digital tool to help the neurodiverse community.

I worked with two graduate students on this education-oriented design prompt:

> *Design a digital tool/interface that could offer the opportunity to highlight different approaches to testing and promote different ways of demonstrating understanding.*

The context



Brainstorming

- We brainstormed and researched different problems that neurodiverse people may have with testing.

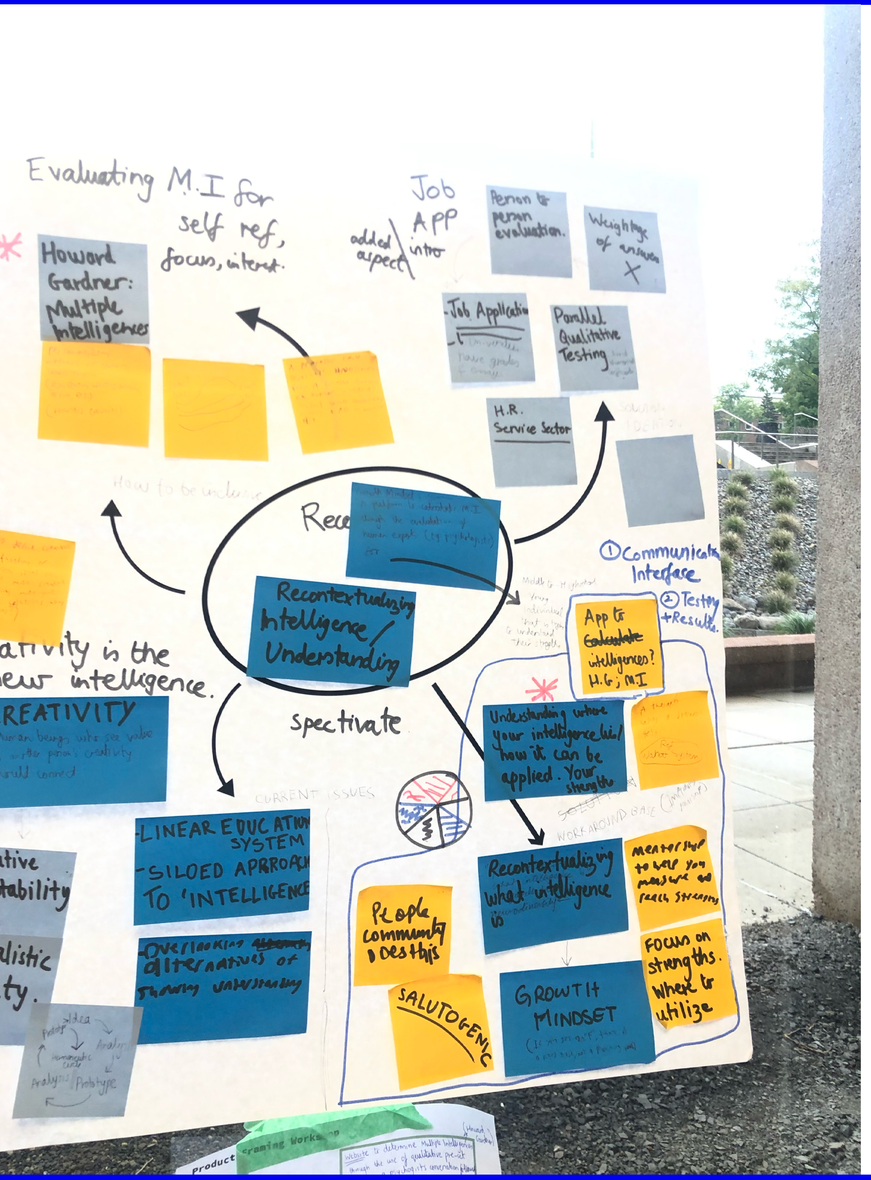
User interviews

- Next, we interviewed students in Syracuse University's InclusiveU program who have cognitive disabilities.
- One of the students, who is a music major, said that he would like it if he could use his musical abilities to demonstrate his understanding of his courses.

Designing

- Finally, we designed a working prototype of an application where students would take a survey about what types of assessments (such as multiple choice, short answer, project based, etc.) that they prefer.

The context



The results are in!

We lost.

Even though we didn't win the hackathon competition, I knew that this was not the end of this project.

The problem

Taking it further

- I signed up for a class with the same goals and focus as the hackathon.
- This class was largely self-guided and had a business pitch competition at the end.

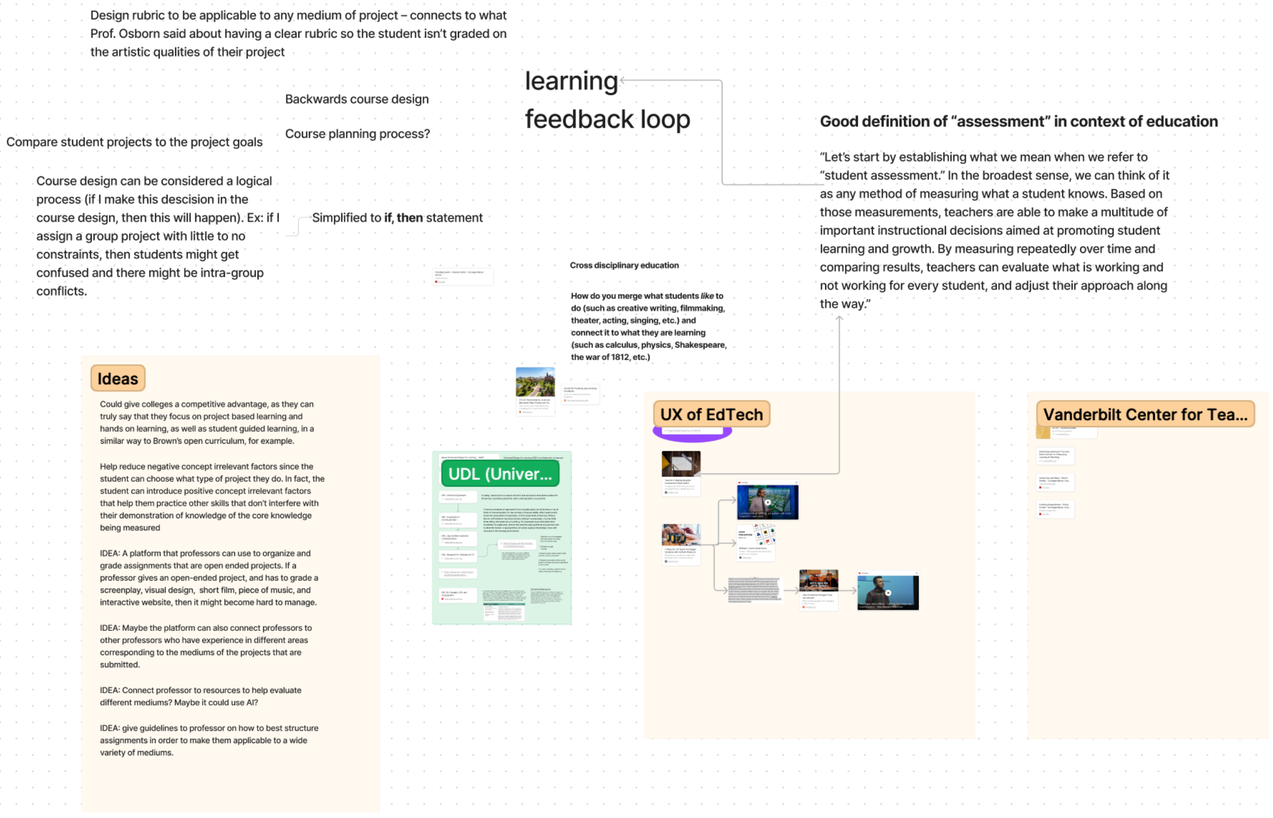
Discovering the problem

Asking myself a question

> *Did our solution **truly** give students the freedom to demonstrate their understanding of course concepts in the way that they prefer...*

...or was it just a band-aid covering up a larger problem?

Discovering the problem



Learning about learning

I did secondary research to develop a better understanding of teaching and learning

Universal Design for Learning

- An educational framework that flips the course design process on its head
- First you create learning goals, then you design engaging assessments, and you finish by designing lessons.

Interesting studies

- I found some educational studies that showed innovative assessment styles, such as a physics assignment where students create a short video

Discovering the problem

Why can't assessments be tailored to student strengths?

Well, what if students are not the only stakeholders?

- Students' needs have to be balanced with university, program, and accreditation requirements, just to name a few.

And who is in charge of achieving that balance?

- The professor, who has to meet the needs of the students while ensuring that learning is taking place through measurable metrics.

So, how can I find the answer to my original question?

- By talking to professors!

Understanding the problem

How do you teach philosophy to a film major?

How a philosophy professor designed a media ethics course

Know your audience

- Assignments and lessons that work for some students might not work for others

Grading is hard

- Student guided, creative/artistic projects need to be graded based on course content rather than artistic or technical skill

If students don't care, they don't learn

- Students need to feel like they are in control of their own learning, If they don't, then they won't learn as well, if at all.

Understanding the problem

Student perspectives

How neurodiverse students navigate an educational system that is often one-size-fits-all

Memorable courses and projects

- One student enjoyed a project that allowed her to use art to express concepts about climate change.

Barriers to learning

- Some students said that they have trouble reading lengthy textbooks
- Other students said that find it difficult to stay focused during exams.
- One student sadi that they like being able to watch recorded lectures so they can pause and slow down the video

Redefining the problem

A new direction

Originally, I thought the problem was simply that professors don’t know what types of assessments are best suited for their class. But now that problem was shifting.

Redefining what an assessment is

- My focus shifted to helping professors deviate from the “one size fits all” model that many courses follow.

A helping hand

- At this point, a student joined the project, focusing on answering the business questions.

With a new focus comes new questions

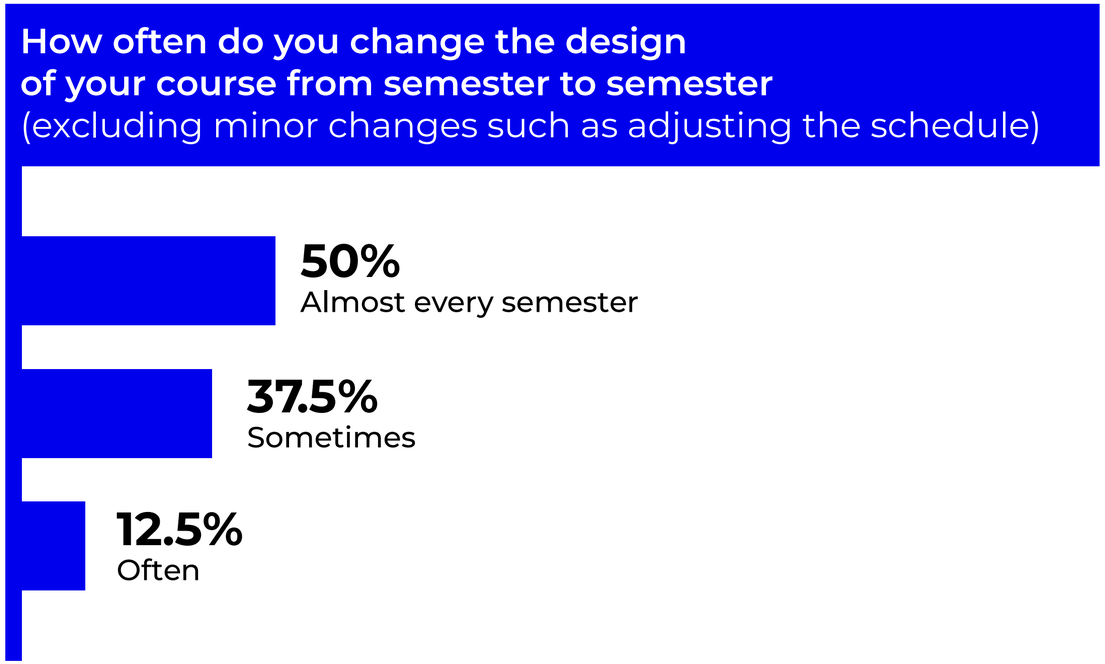
- Even though the business pitch competition was approaching, I still had some gaps in my understanding of how professors approach course design.

Redefining the problem

Course design survey

I conducted a survey of eight professors to get an overview of how professors from a diverse set of disciplines approach course design.

Professors redesign courses often



Redefining the problem

Course design survey

While professors have varying approaches and challenges with course design, there were some common themes, such as organization, timelines, and seeing the big picture.

Many different approaches to course design

How do professors design their courses

> Sticky notes on my dining room table to sort and group various lessons/projects

> I read blogs, journals, and articles daily and listen to podcasts

> A Text Edit document to arrange all my notes and topics

> A list of topics in [Microsoft] Word that I start with

Varied challenges with some interesting overlap

What challenges do professors face with course design

> Finding an overall flow for the course — most content is not linear in application or operation, but we have to put it into a linear timeline

> Working with outside clients on course projects, realistic timelines, working in student teams for project delivery

> Maintaining continuity of material, adding rich assessments without overloading myself with grading tasks.

> Knowing what topics, exercises, etc. will work since each semester is different

Redefining the problem

Persona and journey map

Professor Thomas

Professor Thomas is an American history professor who has been teaching for almost eight years. He notices that more and more students seem to be struggling in his class, not paying attention, and not thinking critically about class material.

He is currently designing a course on early American history. Based on past experience teaching similar courses, students don't retain much information after the class ends and don't seem very involved in their learning.

ACTION	Define goals	Brainstorm delivery methods	Create assignments and lessons	Get feedback	Implement course design
TASK LIST	1. What do I want students to learn about Early American History? 2. Based on departmental requirements, what do students need to learn and do? 3. What do I need to do to make sure students with disabilities and diverse learning styles can be successful in this course?	1. Reflecting on the strengths and weaknesses of similar courses 2. Analyze data of how students learn and show learning (what if it's skewed from one class to another) 3. How many types of delivery methods should I use?	1. Create varied assignments based on the class concepts and students 2. Keep accessibility and learning styles in mind 3. See what other professors have done	1. Ask other professors 2. Look at past student feedback 3. Utilize university resources (such as the Center for Teaching and Learning)	1. Follow the course structure that you designed 2. Be open to changing course if needed throughout the semester 3. Keep track of student feedback 4. Keep accessibility and learning styles in mind

Redefining the problem

A new problem

Students learn in different ways, but many course structures are one-size-fits-all.

Professors want to give students a learning experience that works for everyone, but they don't know the learning styles of the class they are designing the course for.

Radically adjusting course structure to fit every student is necessary, but is currently a massive undertaking.

The solutions

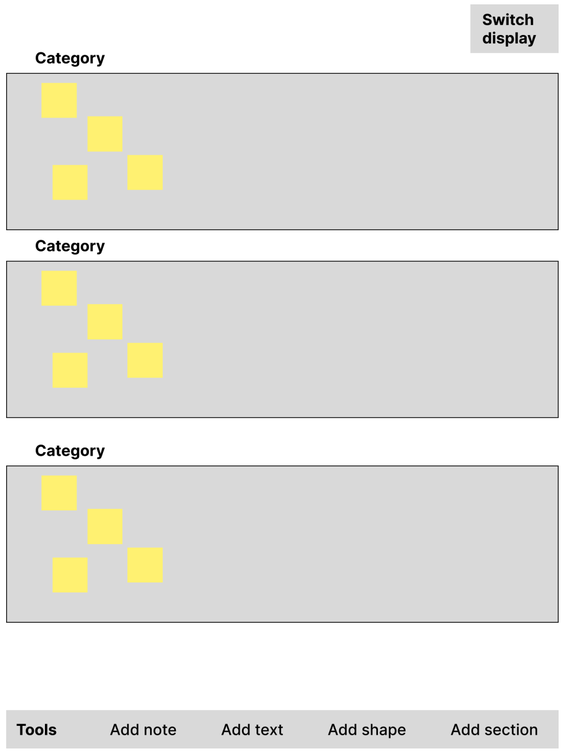
Time to design

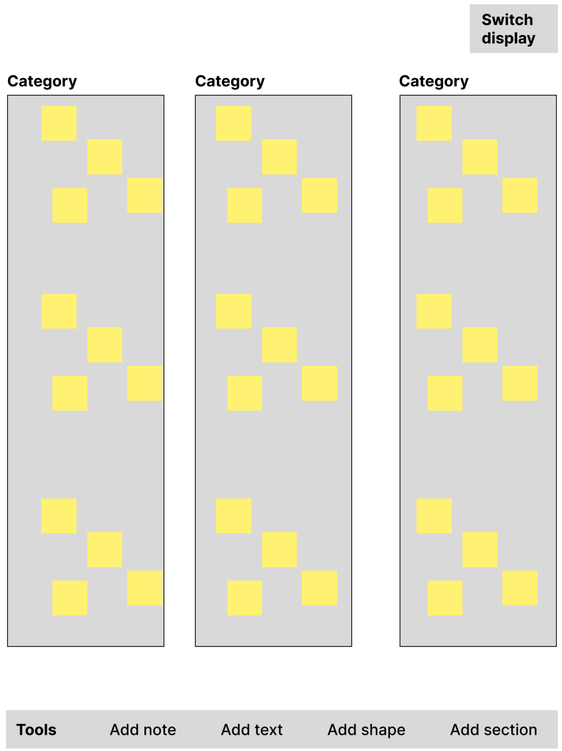
- Now that I had a better understanding of the problem professors face designing courses, I could start ideating and designing solutions.

Exploring the solutions

Visualizing my thinking

Before jumping into the core interface design, I wanted to explore solutions for how course information could be displayed and organized.





Exploring the solutions

Connecting goals to assignments

I also wanted to explore how professors could link course goals to individual assessments.

Goals

- Develop logical historical arguments
- Develop an understanding of early American history
- Connect historical themes to the present
- Interact with primary historical sources

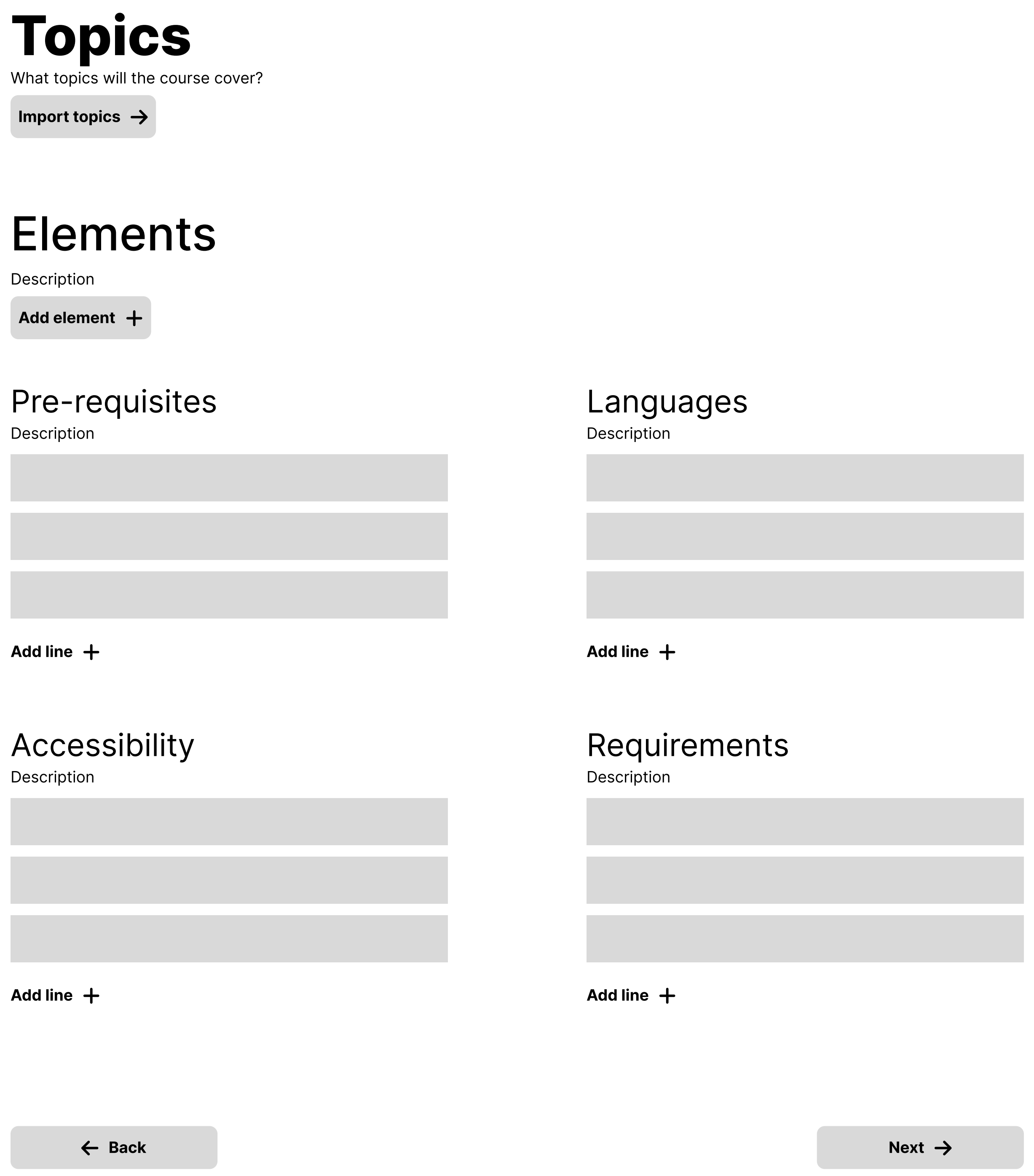
Assignments

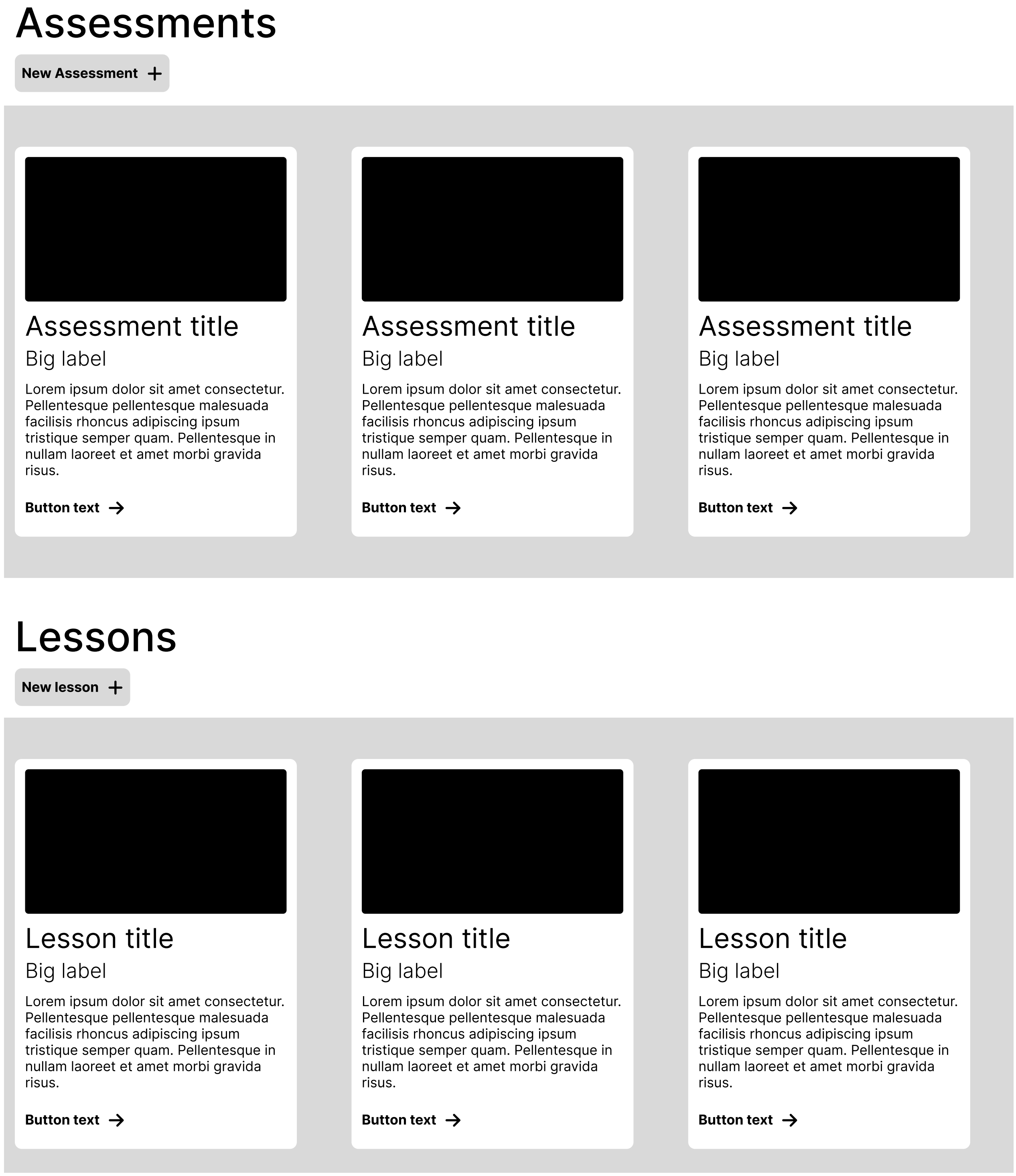
- Day in the life of a revolutionary soldier
- Researching an important political compromise during ratification of the constitution
- Myths and truths about early American history

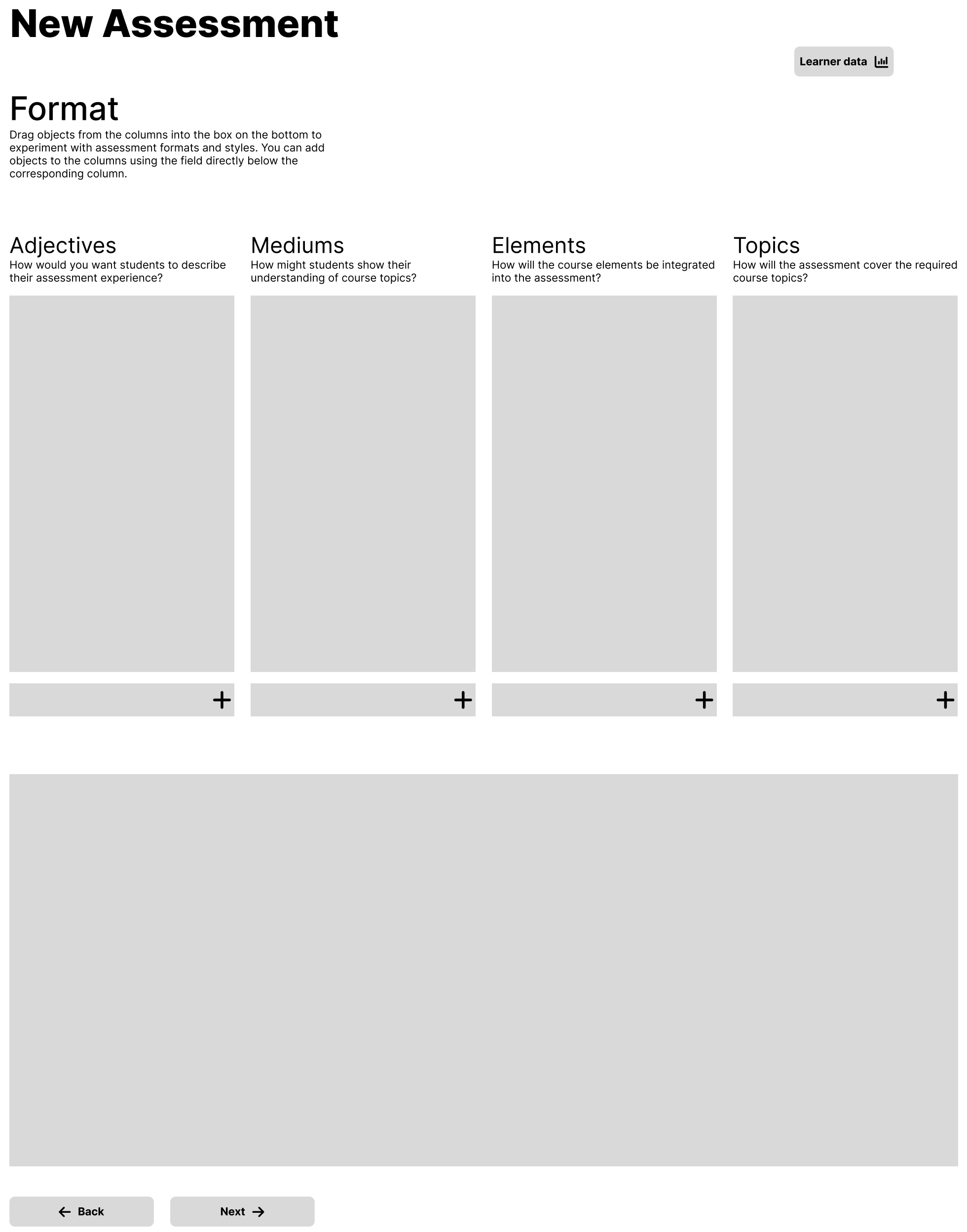
Exploring the solutions

Wireframing

I made some wireframes to visualize what the architecture of the design might look like.



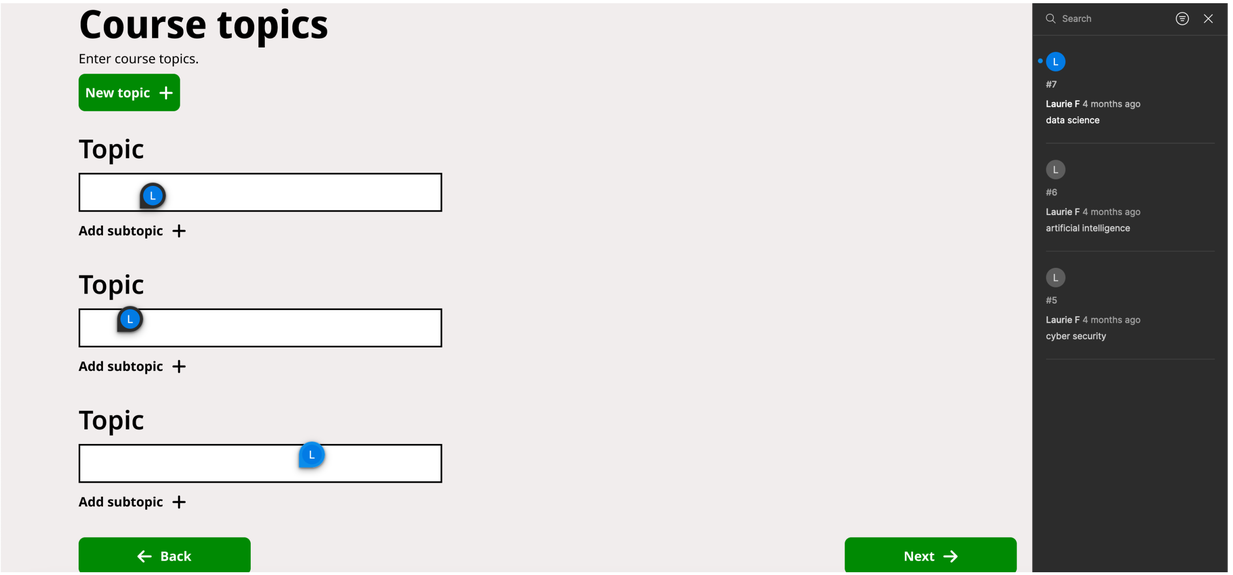




Testing the solutions

User testing

Due to time constraints and scheduling issues, I was only able to conduct one user testing session. I do plan to conduct more soon, though



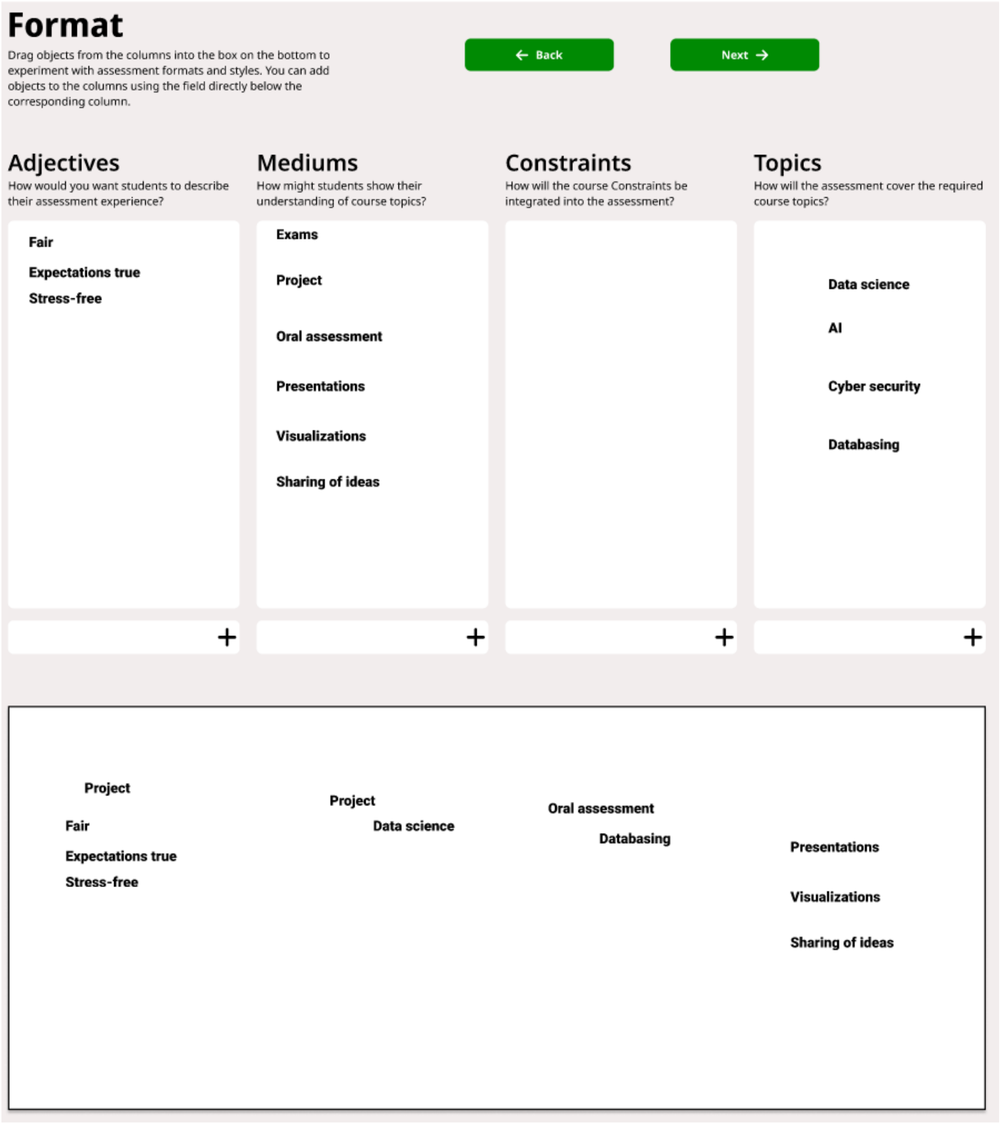
Testing the solutions

Not everyone likes whiteboarding

The professor said she isn’t a fan of whiteboarding applications, and was a little confused about that feature of the design.

User feedback

- The professor said she isn’t a fan of whiteboarding applications, and was a little confused about that feature of the design
- While this was just one comment from one user ,it got me thinking about the fact that not all professors would find a whiteboarding canvas intuitive.



Testing the solutions

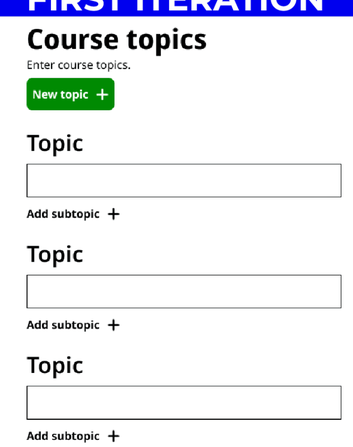
A confusing component

Because a course can have many different elements (such as a long list of topics), I needed to design a component that would allow professors to continuously add entries to a list through user input.

User feedback

- My first iteration of this component duplicated the entire input field component each time the user added an entry/
- The professor found this confusing and had a hard time figuring out how to properly interact with the component.

FIRST ITERATION

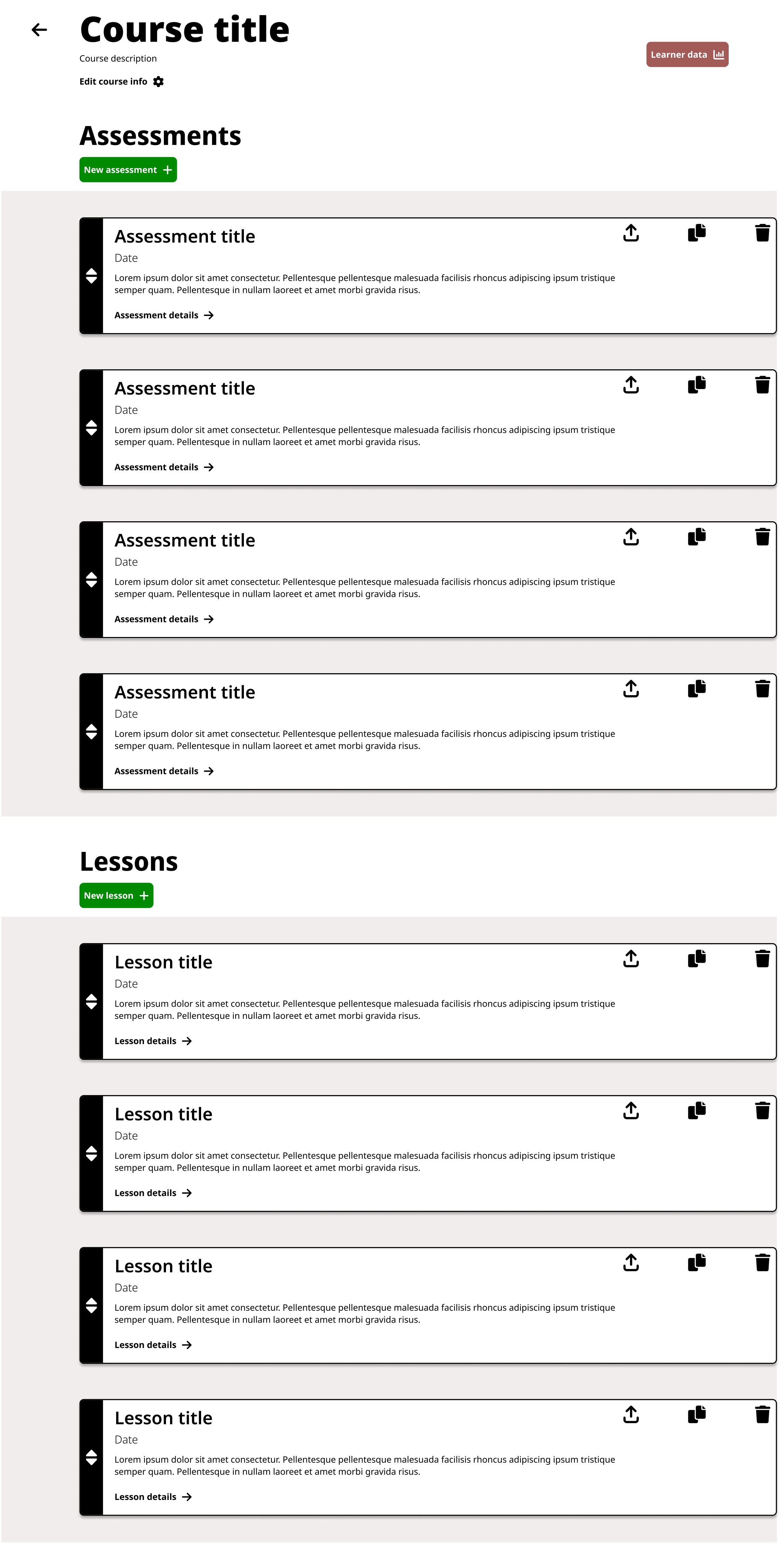


FINAL ITERATION

Testing the solutions

“I can scroll down?”

The professor didn’t realize she could scroll down on this screen to view another section.



Iterating the solutions

Lots of iteration!

From 13 screens to four

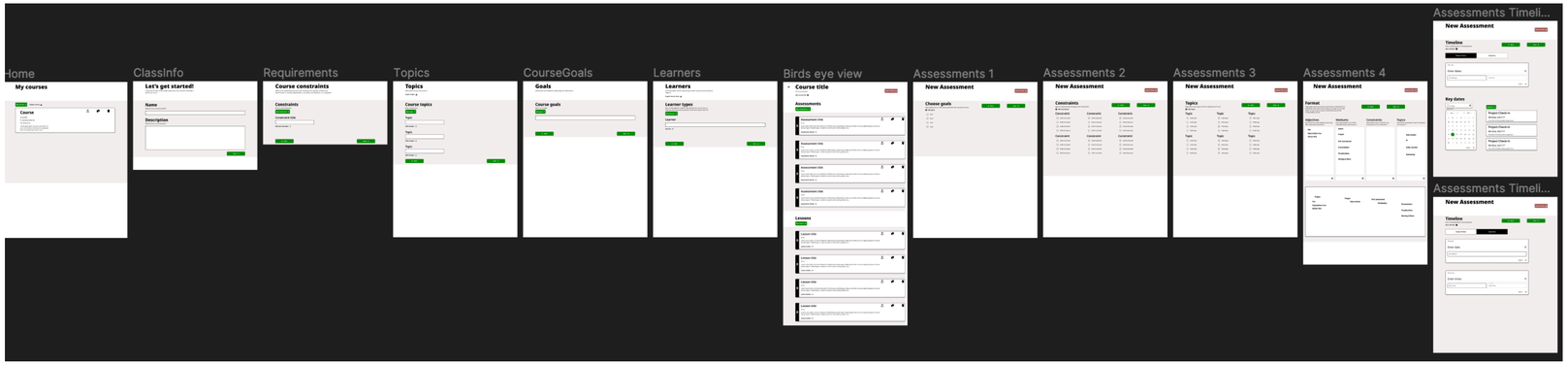
- The original iteration was 13 screens, with individual flows spanning across multiple screens.
- From a usability perspective, this could lead to user fatigue, so I trimmed it down to four screens while keeping most of the content.

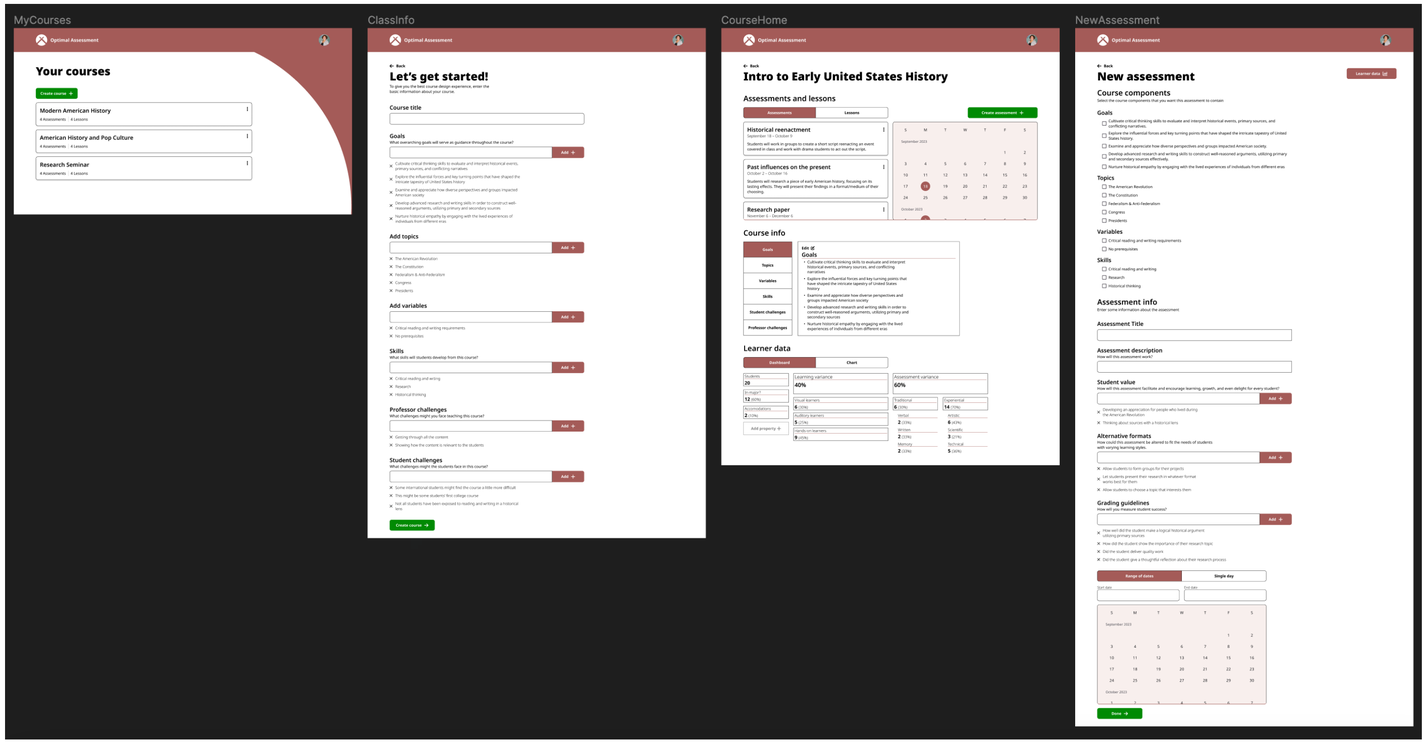
Better use of color

- I adjusted the colors to be less dull, and made my color usage more intentional.
- When a button element adjusts something on the page, it is dark pink. When a button navigates to another page, it is green.

Improved layout

- The original design didn't make effective use of a grid, so I adjusted the grid and adhered to it more strictly.





Iterating the solutions

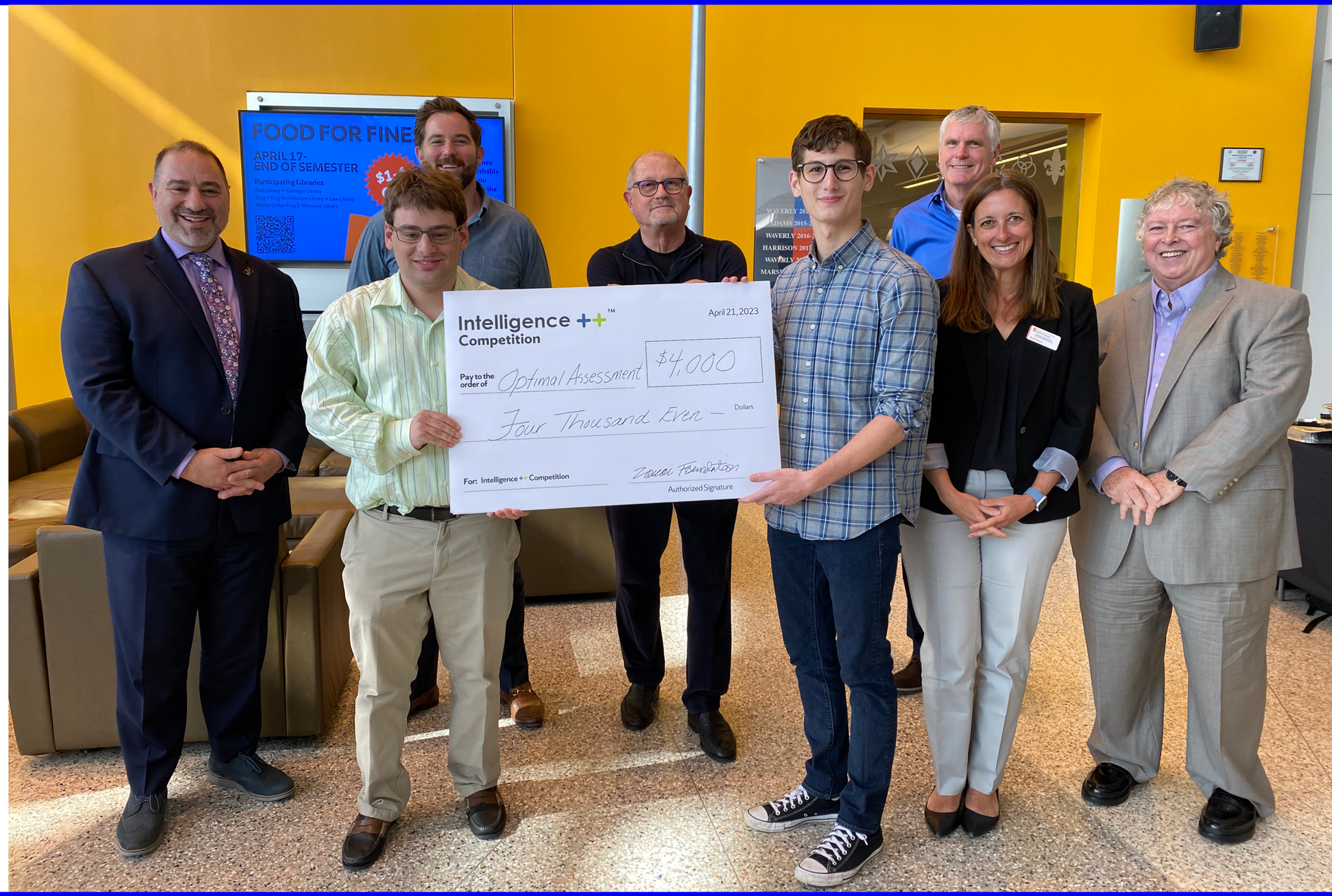
Prototype

https://youtu.be/6YxlDJqjM_c

The outcome

The results are in!

We won!



The future

We are just getting started!

I am currently developing out a functonal prototype using a no-code development tool. After that, we might see if we can work with a developer to expand this idea further

The lessons

Being the only designer is tough

- As the only designer on this project, I had to stretch myself and my skills.
- This helped me grow as a designer, but also limited the project's potential.

Talking to users and experts

- This was the first project where I got real world experience doing user research.
- The insights I gained were invaluable during the design process.

Creating user and business value

- I learned how to improve the experience for users and communicate how that will create business opportunities

THANK YOU!

Any questions?
Ask away!