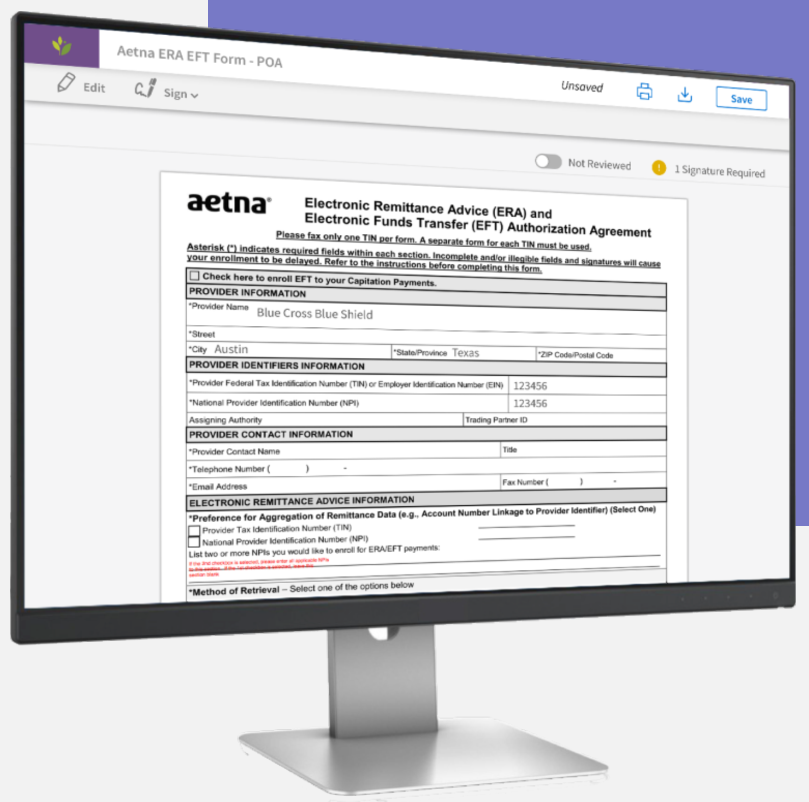
Jeremy's Portfolio

Jeremy Chen
The University of Texas at Austin
Master, User Experience Design

athenahealth Internship



Web Application

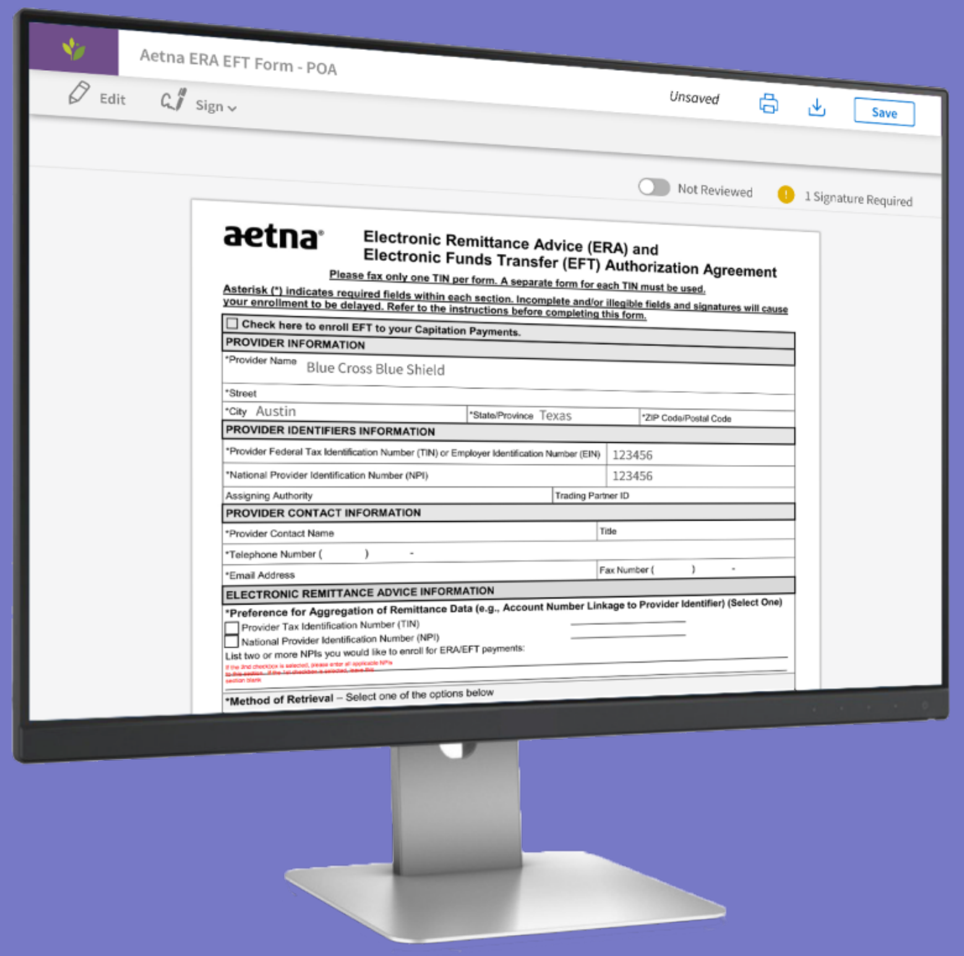
agile, Scrum

ViewSonic Internship

Web Application

early-stage product development

athenahealth Internship



What is my role?

As an **embedded SCRUM UX designer**, I work closely with the Product Owner and Developers to implement a functionality into the software.

My SCRUM team

Me

UX Designer | Product Owner | 3 Developers

What is the challenge?

Hey athena! I want to transfer money electronically with my payer.

Hey payer! We want to transfer money electronically with you.

We have filled out the form and signed it for you. Your request has been completed.

No problem!
Please fill out this form to meet out requirements, and make sure you sign it.

Build the right thing

Why?

Why does the problem matter to the company and users?

Why?

The Value of Solving the Problem

Because of functionality limitations the software has, enrollment operation teams are forced to work outside of the software to sign payer application forms.

This lack of functionality is highly inefficient; it took an average of

2 mins to process a form.

The Value for the company

Reduce the cost of printing enrollment forms

Decrease the time of processing the forms

The Value for health providers

Decrease the time of setting up the connection with Payers

Decrease the time of processing the forms

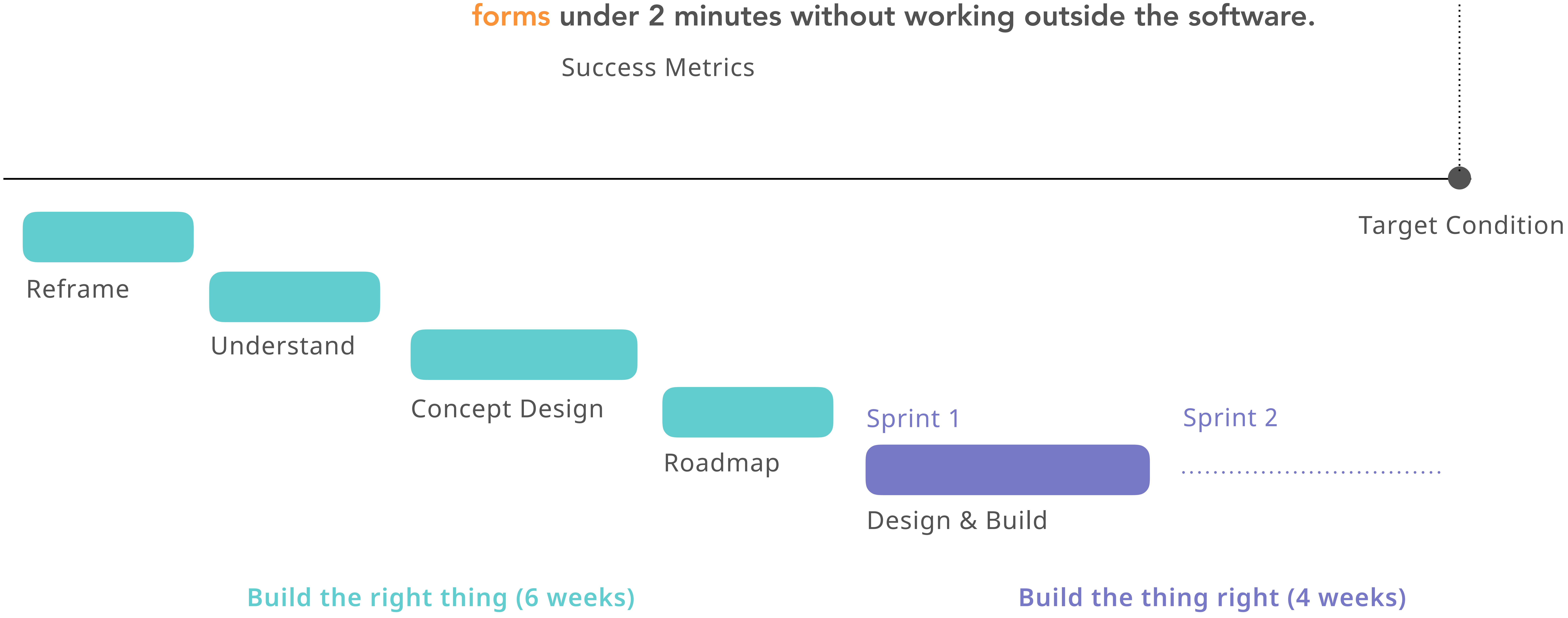
Why?

Project Kickoff

Target User | User Goal

An enrollment operation team member can process payer enrollment forms under 2 minutes without working outside the software.

Success Metrics



Why?

Research Plan

Enrollment e-sign user research

Objective:
The purpose of the study is to answer the hypotheses we have and understand the difficulties Ops users have when signing enrollment form.

Background:

We know that our current form signature process is not well designed. The process is complicated and time-wasting for both Ops team and clients in athenaNet. To validate our hypothesis, we would like to narrow our focus on Ops team and interview them to validate and answer our research questions.

Research Questions:

Understand Ops team usage and perceptions around the enrollment form and signing tools within athenaNet:

- What are the concerns and difficulties Ops have before/during/after signing a form?
- How does e-sign compare to their current workflow?

Question & Hypotheses:

	IMPORTANCE
We think that Ops teams suffer difficulties when signing the form - What are the current process of signing form? - What are the difficulties they have before/during/after signing the form? - How do Ops users locate the place to sign their signature? - How do Ops users know which signature type to use? - How do Ops users know that there are tasks waiting to complete?	Critical
We think that e-sign could improve the current workflow for Ops team - How does e-sign fit and improve the current workflow? - How does e-sign solve Ops teams' need?	Critical
We think that Ops team need to locate the signed document - What is the current process of finding signed document?	Critical
We think that our clients have a hard time to complete the enrollment task - What are the difficulties our clients have when completing the enrollment tasks?	Useful

Importance Key:

- ***Critical:*** *We cannot proceed (or proceed without causing user/athena harm) without this information.*
- ***Useful:*** *This information would be helpful in ensuring success, but it's not preventing progress.*
- ***Nice to know:*** *This information would be informative, but we don't need it to proceed.*

Participant Profile:

- Ops team who help clients to sign the enrollment application form (e.g. for EDI, ERA, and EFT)
- It can be a subject-matter expert

Target User

Primary User: athenahealth Enrollment Operation Team

Secondary User: athenahealth Clients

Assumption 1

We think that our users suffer difficulties when processing the form

Assumption 2

We think that electronic signature function (e-sign) could improve the current workflow for our users

Build the right thing

Where?

Where does our target user suffer difficulties?

Where?

User Interviews

Why did I conduct user interviews?

User Interviews

Validate

Assumption 1

We think that our users suffer difficulties when processing the form

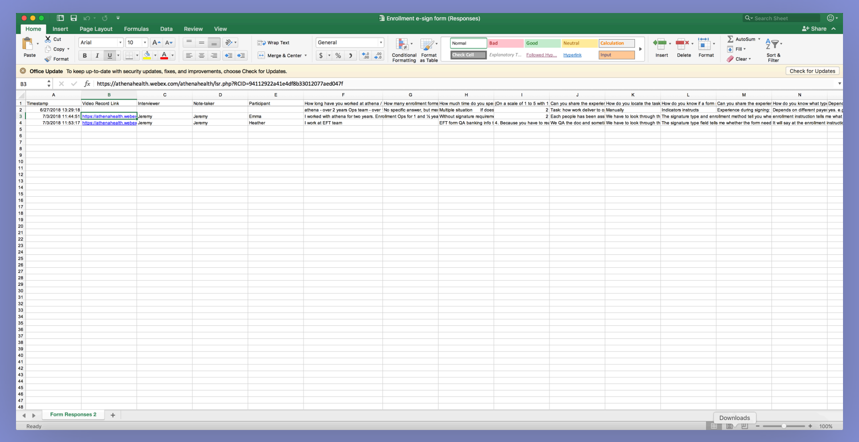
How many users did I interview?

Key Questions

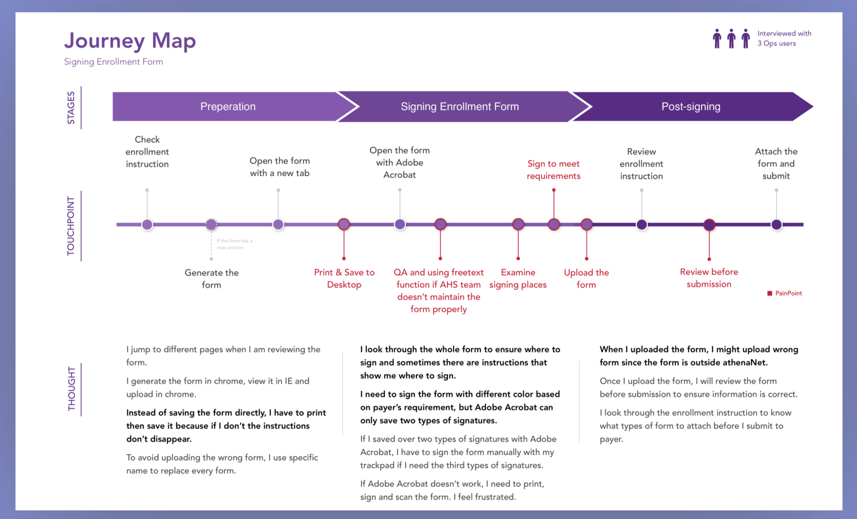
- Can you share the experience that you have during the last time when you are signing the enrollment form?
- What did you do to meet the payer's requirements?
- What happens if there is a problem with the enrollment form? What will the workflow be?

Synthesis

- Excel Sheet



- Journey Map

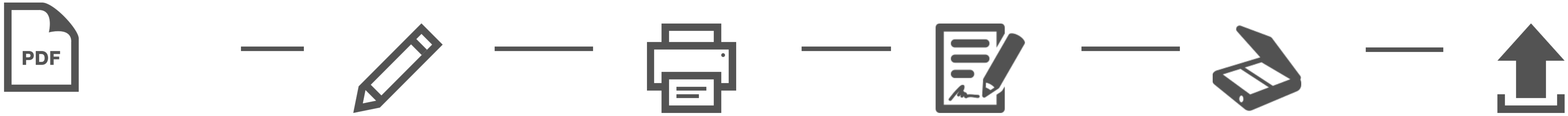


Where?

User Interviews - Journey Map

How do our users process enrollment forms?

Color ● : 3 of 3 interviewees have this problem



Download the form from the software to the local desktop — Edit the form — Print the form (If needed) — Sign the form — Scan the form (If needed) — Upload the form

Sign the form:

Hard to know where to sign

Hard to know how many signatures are required

Upload the form:

Afraid of uploading the wrong form

Where?

User Stories

As an	Enrollment Operation Team Member		
I want to	edit the form and know where on the form I need to sign	so that	the form is edited and signed correctly the first time.
I want to	ensure that a reviewed and signed payer application form is stored in the software	so that	I can know that I sent the right form, and this form can be accessed at a later date.
I want to	change color signatures	so that	I can meet payer's requirements.

Build the right thing

What?

What concepts are we building to meet user needs?

What?

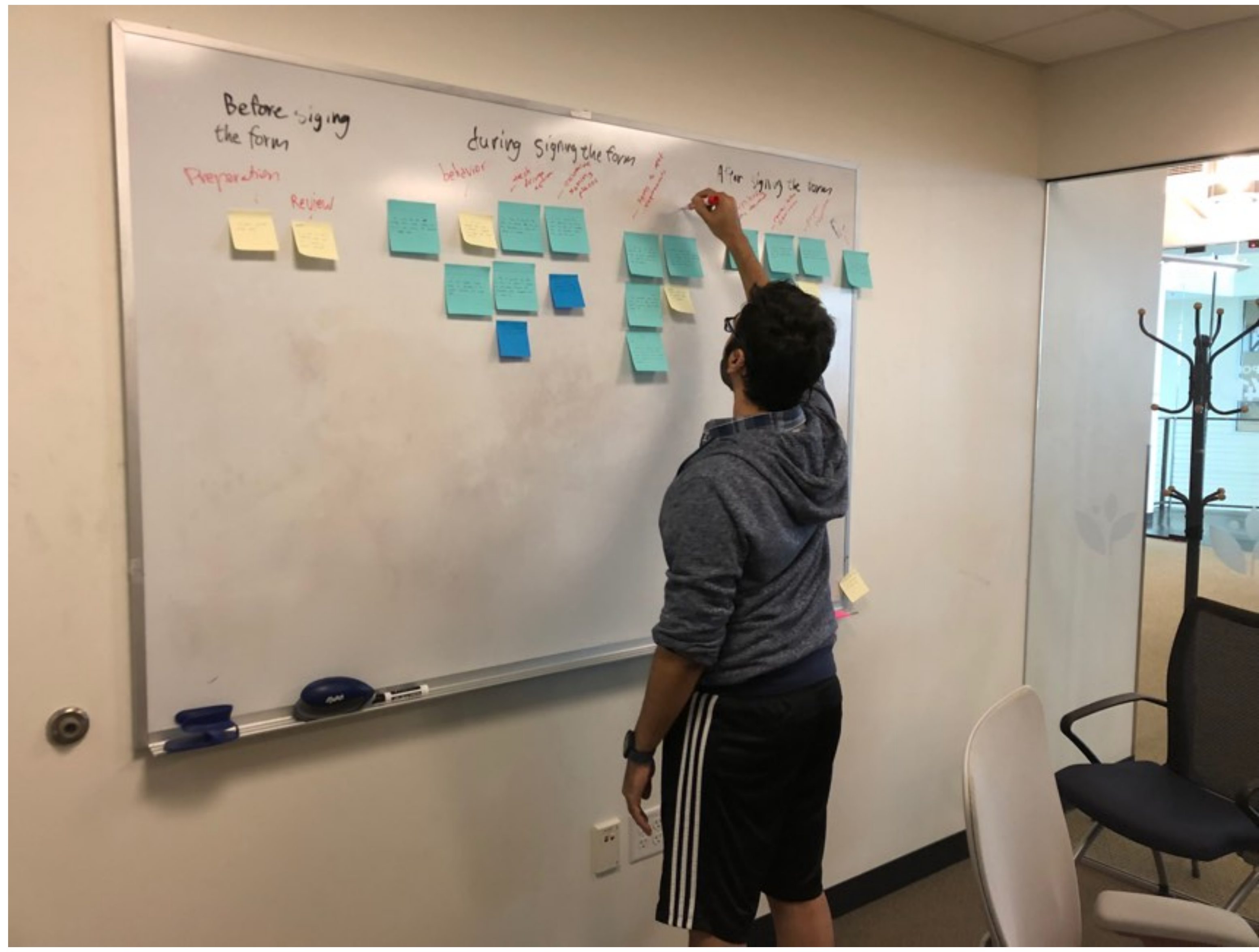
Design Ideation

What is the purpose of this design ideation workshop?

The purpose of this ideation workshop is to ideate HMW statements that meet our user needs and bring our HMW statements to a more concrete concept considering about business, technology and user.

My role

I am a facilitator who helps my teammates to generate wild ideas!



Ideation Workshop

What?

Concept

User Stories

As an enrollment operation team member, **I want to edit the form and know where on the form I need to sign**, so that the form is edited and signed correctly the first time.

As an enrollment operation team member, **I want to ensure that a reviewed and signed payer application form is stored in the software**, so that I can know that I sent the right form, and this form can be accessed at a later date.

As an enrollment operation team member, **I want to change color signatures**, so that I can meet payer's requirements.

Features

An indicator shows where and how many signatures are required

Pop-up a notification when the document is stored

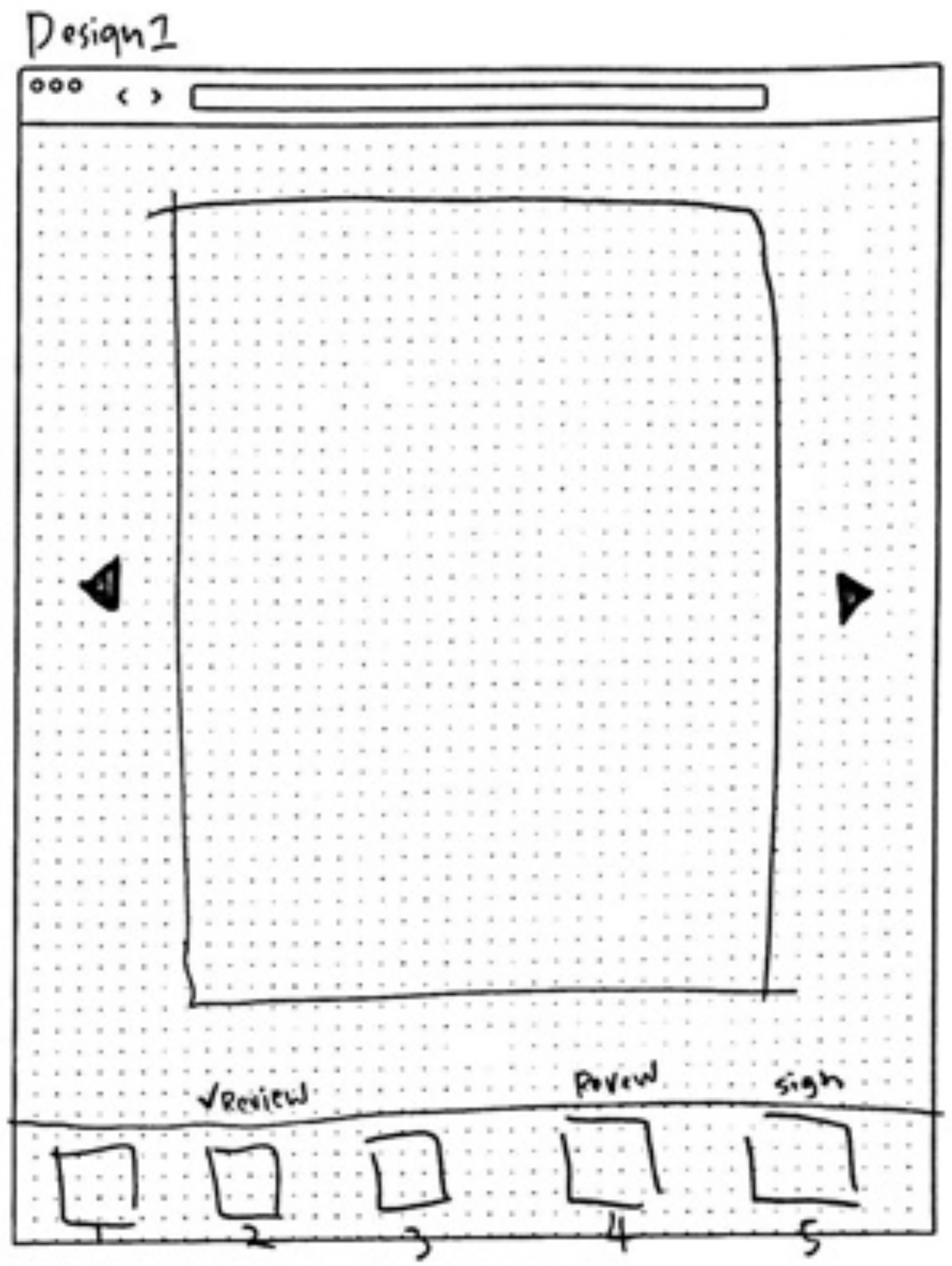
Adobe Sign

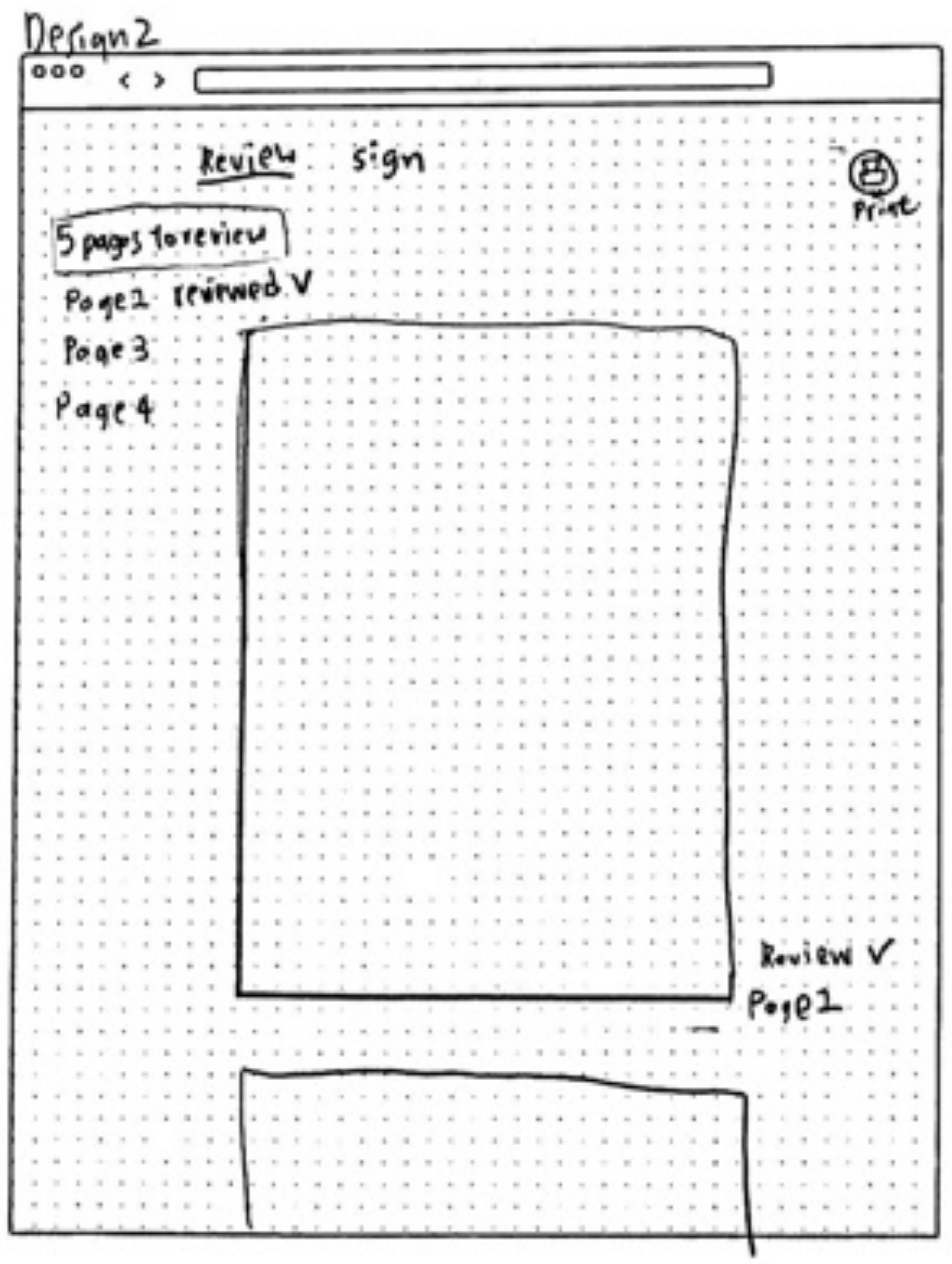
Adobe Sign

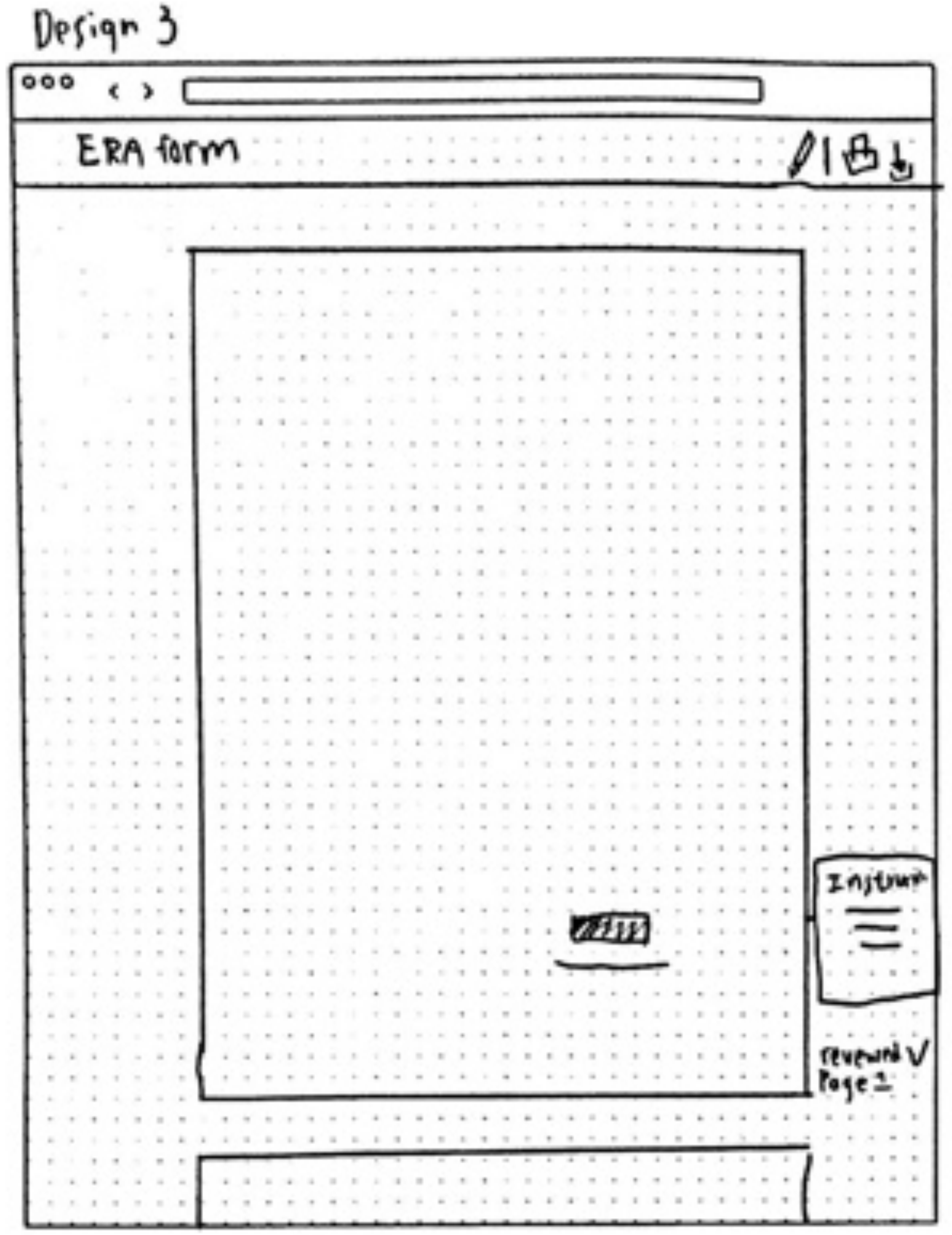
Review Function

What?

Paper Sketching







What?

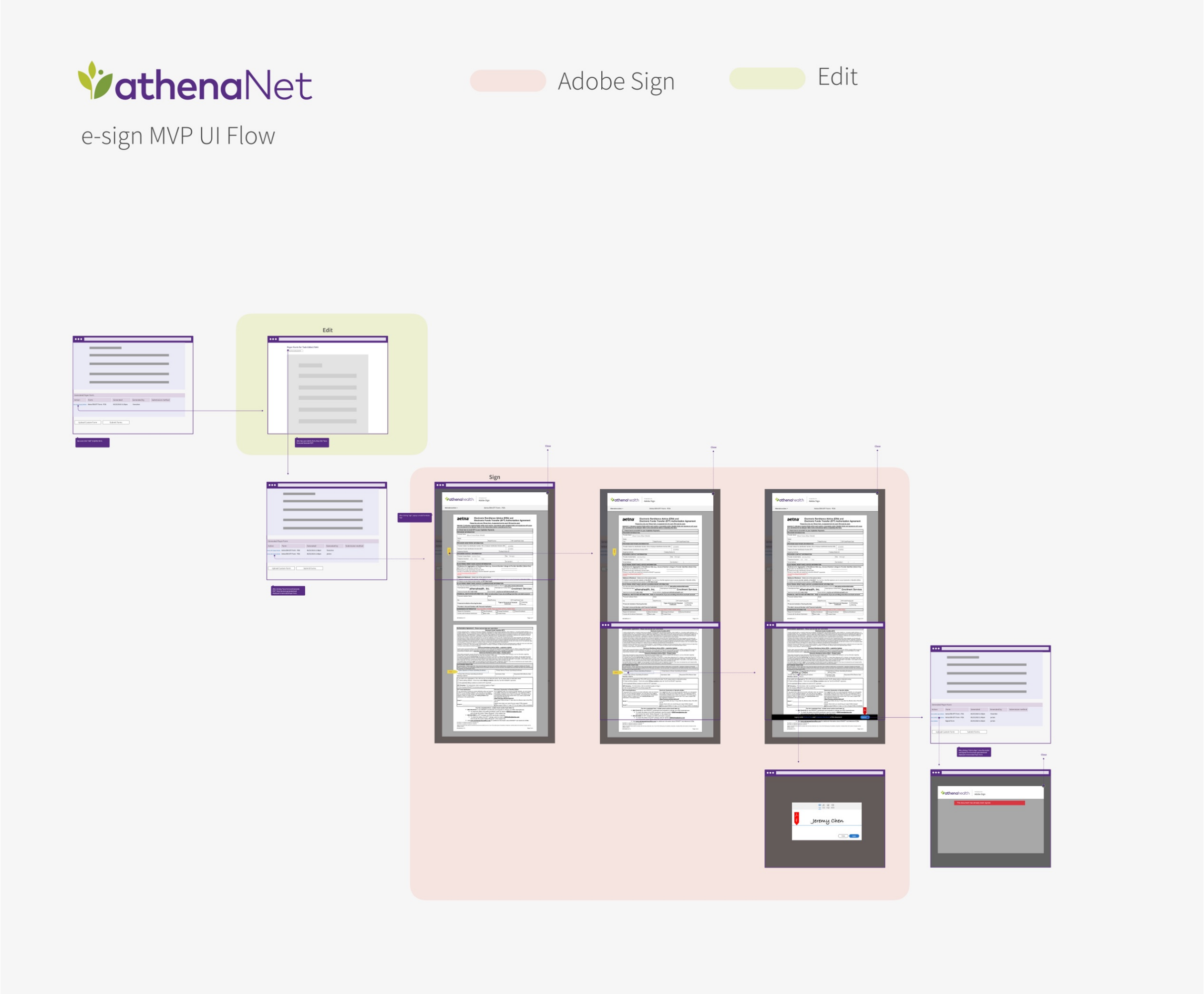
UI Flow

I designed two version of UI flow. One is the ideal flow that provides a vision for the future. The other one is an MVP version that our dev can easily implement to meet limited time frame and see the impact of implementing electronic-signature functionality.

Future Version

Future Version:

- An indicator shows where and how many signatures are required
- Pop-up a notification when the document is stored
- Review Function



MVP Version

MVP:

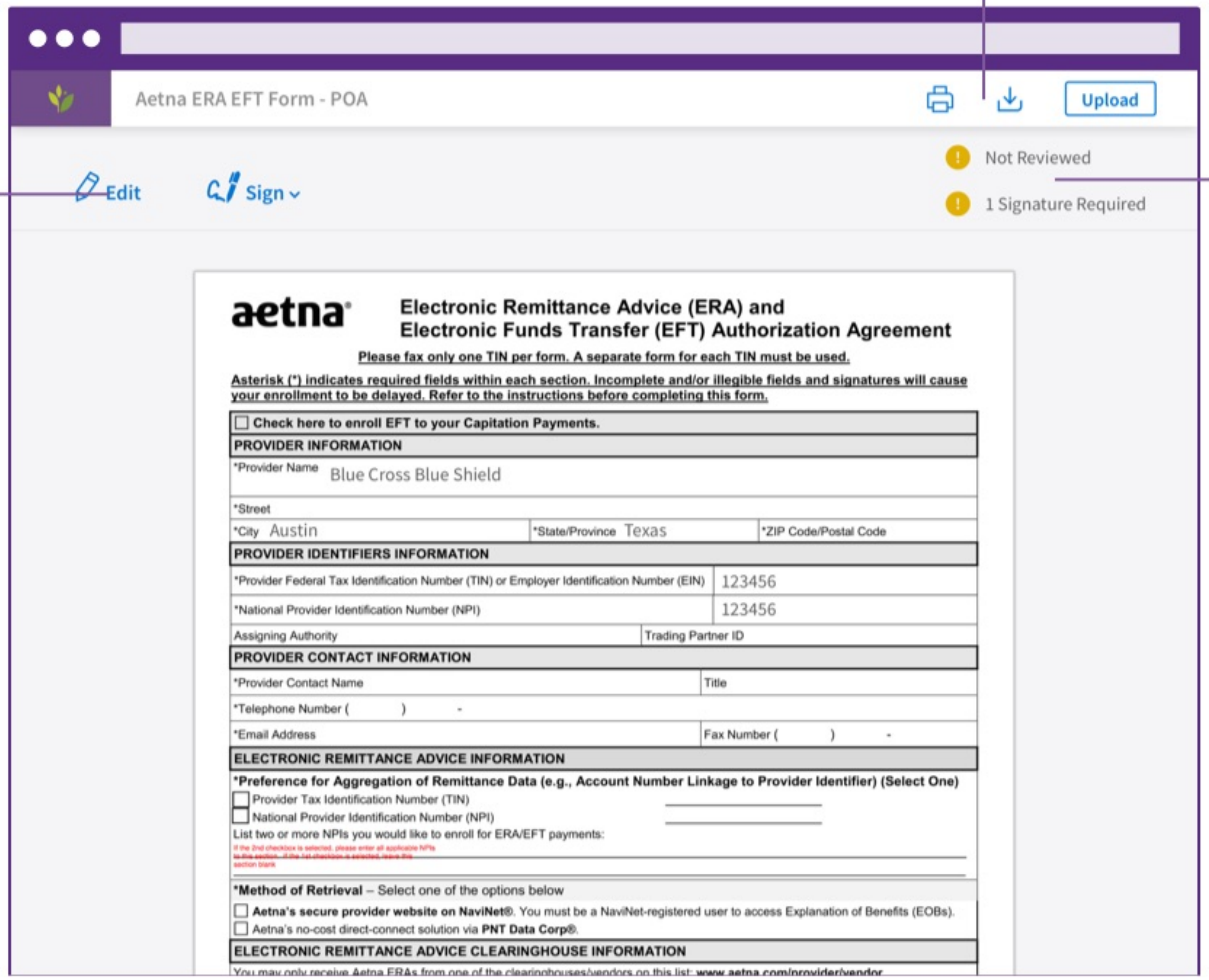
- Adobe Sign

What?

Prototype

A globe navigation bar that users can print, download and upload the form

Clean and simple design, which users can easily know how to use those tools



A clear indicator tells the user that whether this form been reviewed and how many signatures are required.

Build the thing right

How?

How are we going to evaluate our solution?

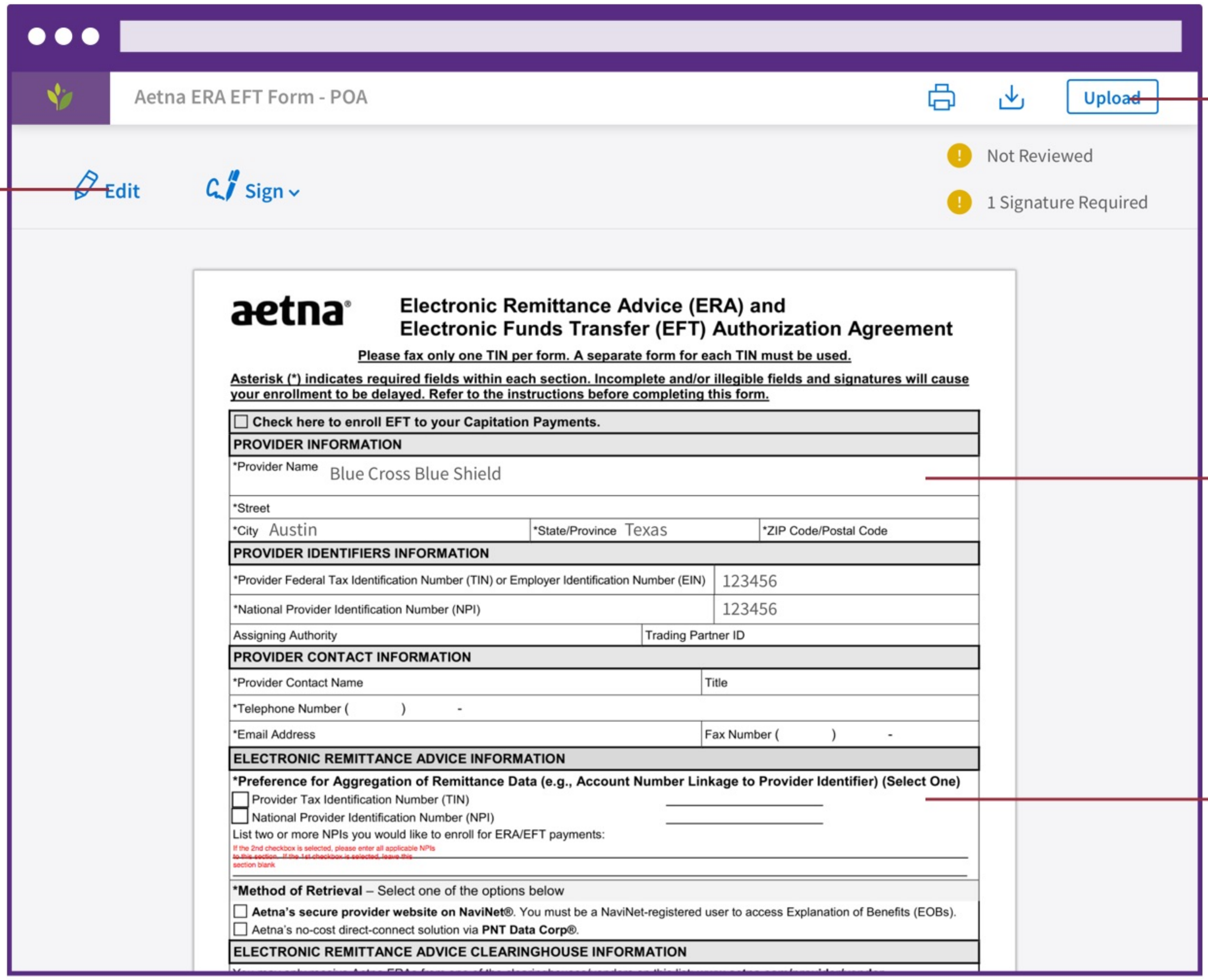
How?

Stakeholder Review

What is the purpose of this stakeholder review?

Alignment is necessary to build the right thing. Stakeholder review (design review) is a crucial way of gathering internal feedback to iterate the UI. We iterate rapidly and increase fidelity as we move towards a pilot.

Recommendation:
Fixed navigation bar helps users quickly select the tool they want



Recommendation:
The word "upload" is confusing. Where do I upload?

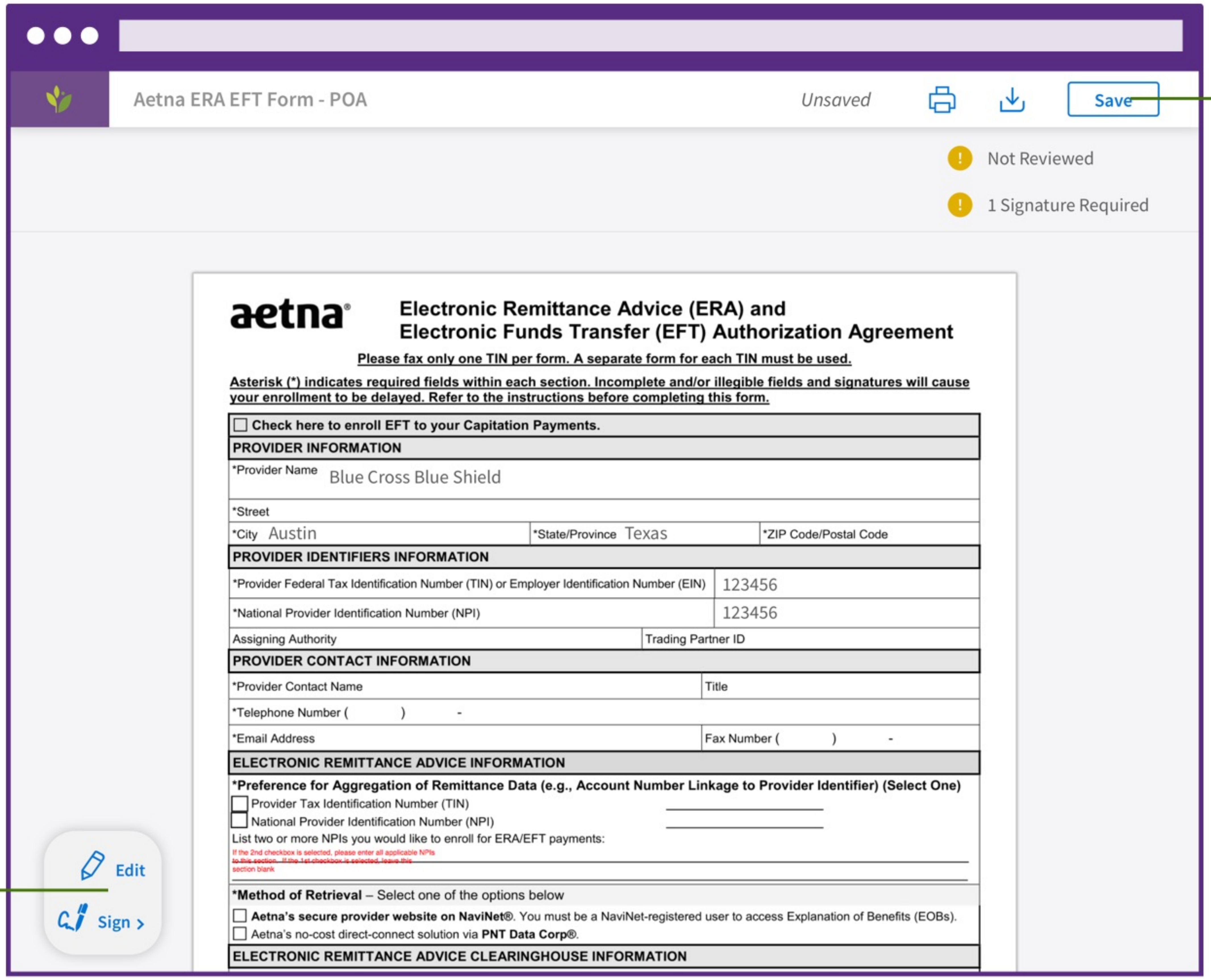
Recommendation:
We have to consider about the situation if Adobe Sign isn't working.

Recommendation:
We need to have the function of adding freetext because sometimes some magic words do not appear inside the form.

How?

Stakeholder Review

New Changes



Change:
Replace the word "Upload" by "Save"

Change:
Fixed tool bar

How?

Define the Success Metrics

Unit Time Reduction

Reduce the time of signing per enrollment form to 30 seconds

Risks Reduction

90% of Enrollment application forms are filled out/signed in the software by the enrollment Operation team, and 10% are filled out/signed outside the software

Usability Success Metrics

- The measurement of "Intention To Use" is higher than 4.0.
- The measurement of "Meets The Requirement" is higher than 4.0.
- The measurement of "Perceived Usefulness" is higher than 4.5.

How?

RITE Usability Testing

Why did I conduct usability testing?

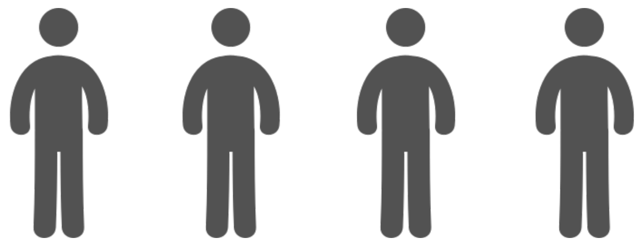
Usability Testing

Validate →

Assumption 2

We think that electronic signature function (e-sign) could improve the current workflow for our users

How many users did I test?

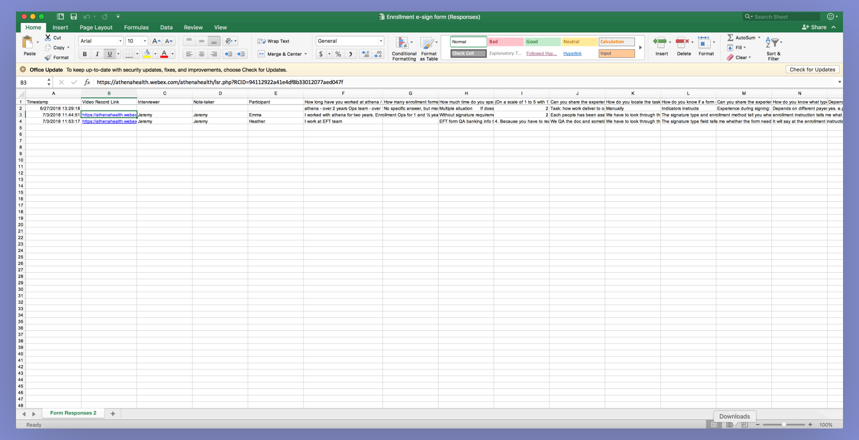


Key Scenarios

- Editing the form
- Signing the form
- Adobe Sign isn't working

Synthesis

- Excel Sheet



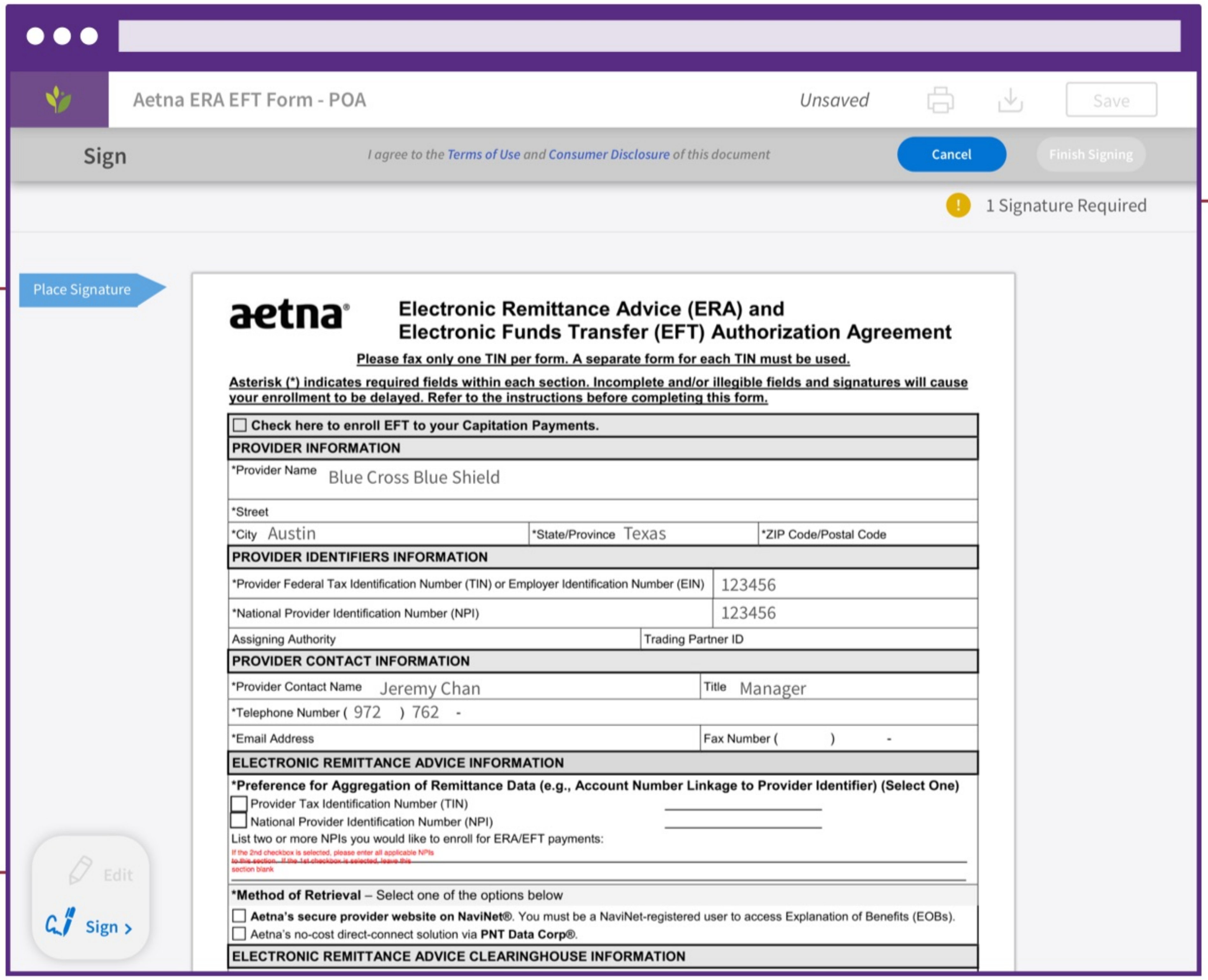
How?

RITE Usability Testing

Iteration 1

Takeaway:
I thought that the label "Place Signature" is confusing. Do I place a signature here?

Takeaway:
The fixed tool bar lets me select the tool I want. However, at first I have a hard time to find this tool bar.



Takeaway:
I can't see the indicator when she entered signing mode.

2 Ops users

Intend to Use:	4 / 5
Meet Requirements:	3 / 5
Usefulness:	4.5 / 5
Completed Time:	1min

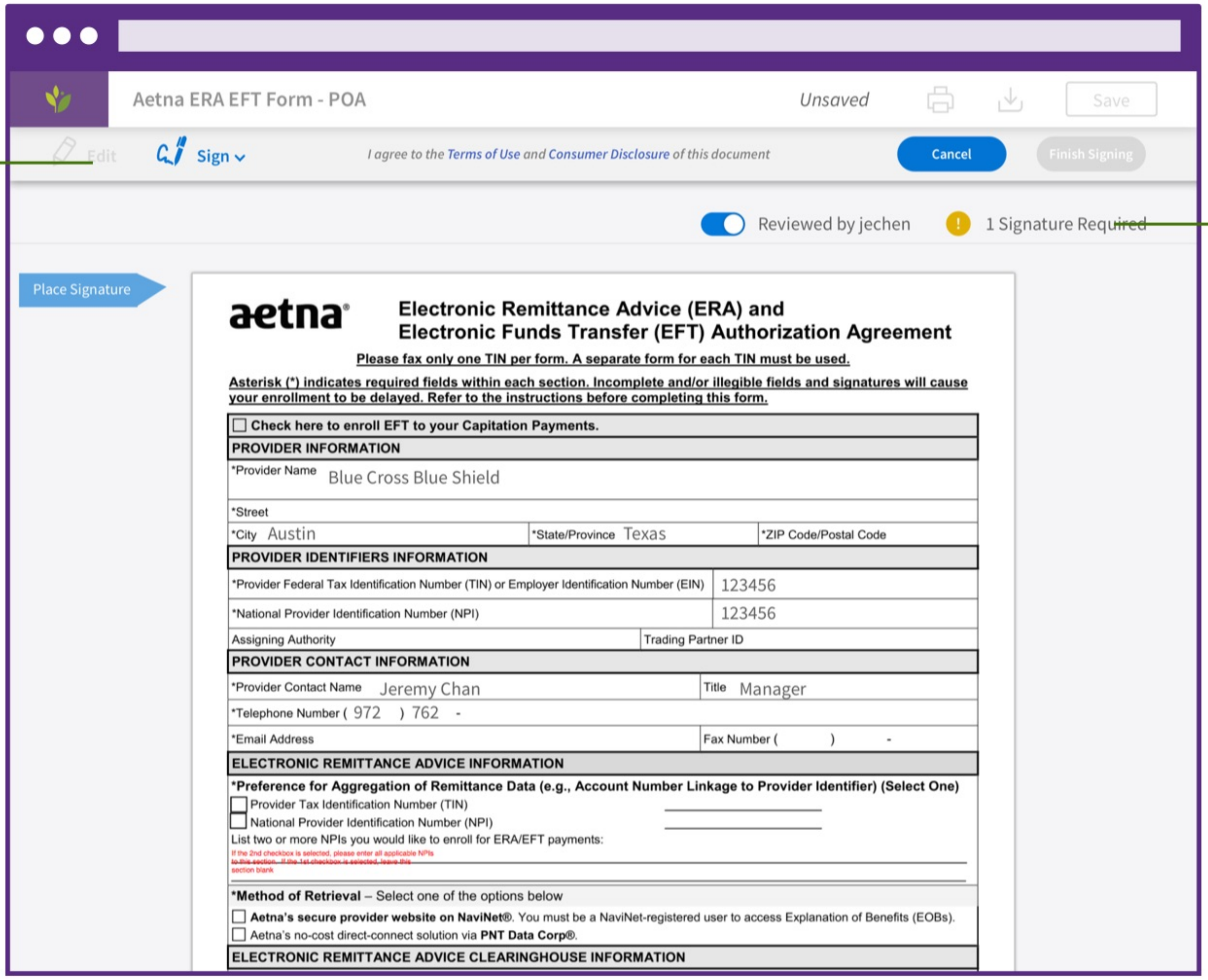
1: Strongly Disagree; 5: Strongly Agree

How?

RITE Usability Testing

New Changes

Change:
Fixed tool bar at the top

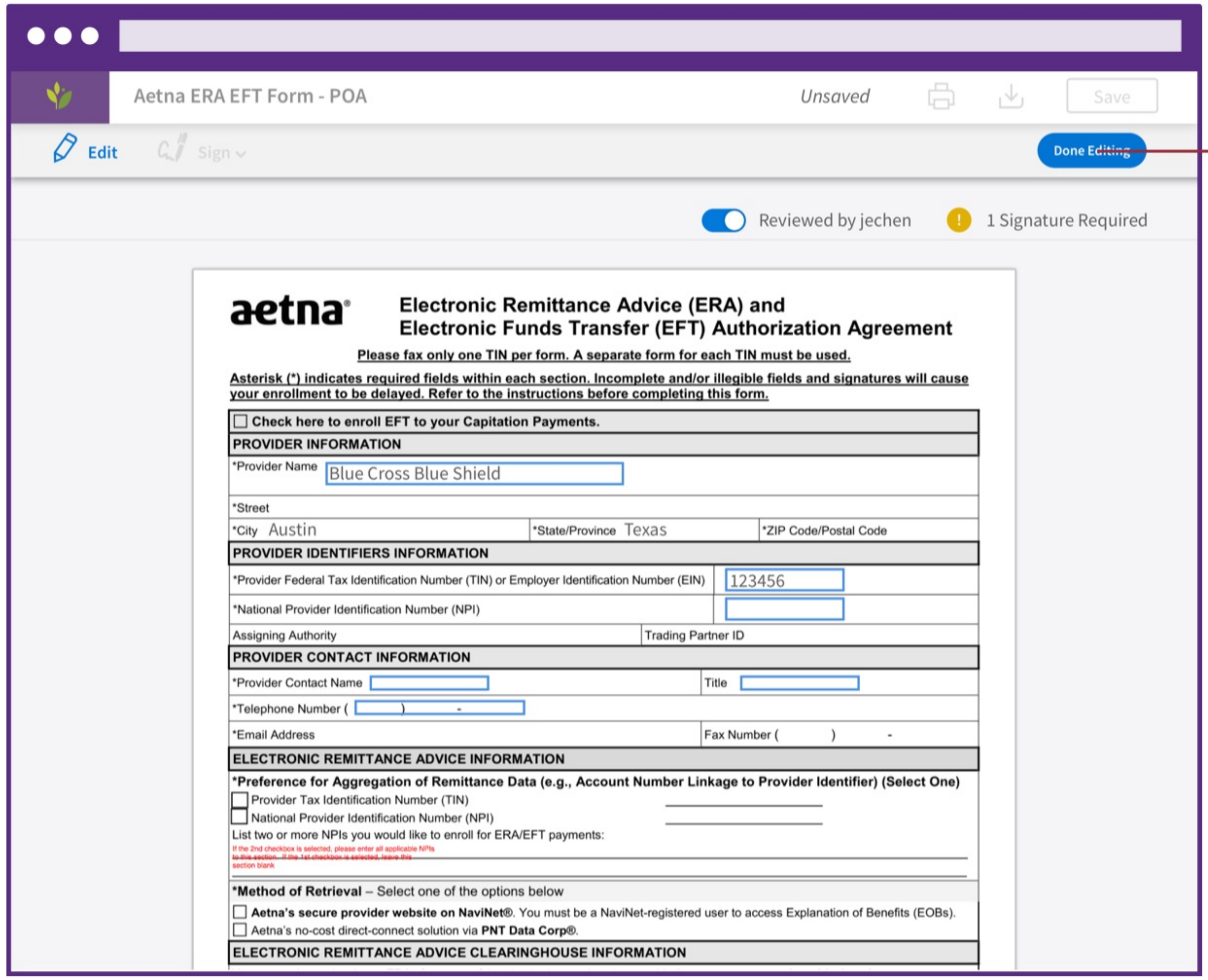


Change:
Change the indicator bar's location and add a toggle for reviewed indicator

How?

RITE Usability Testing

Iteration 2



Takeaway:
I do not know I need to click "Done Editing" to exit edit mode.

2 Ops users

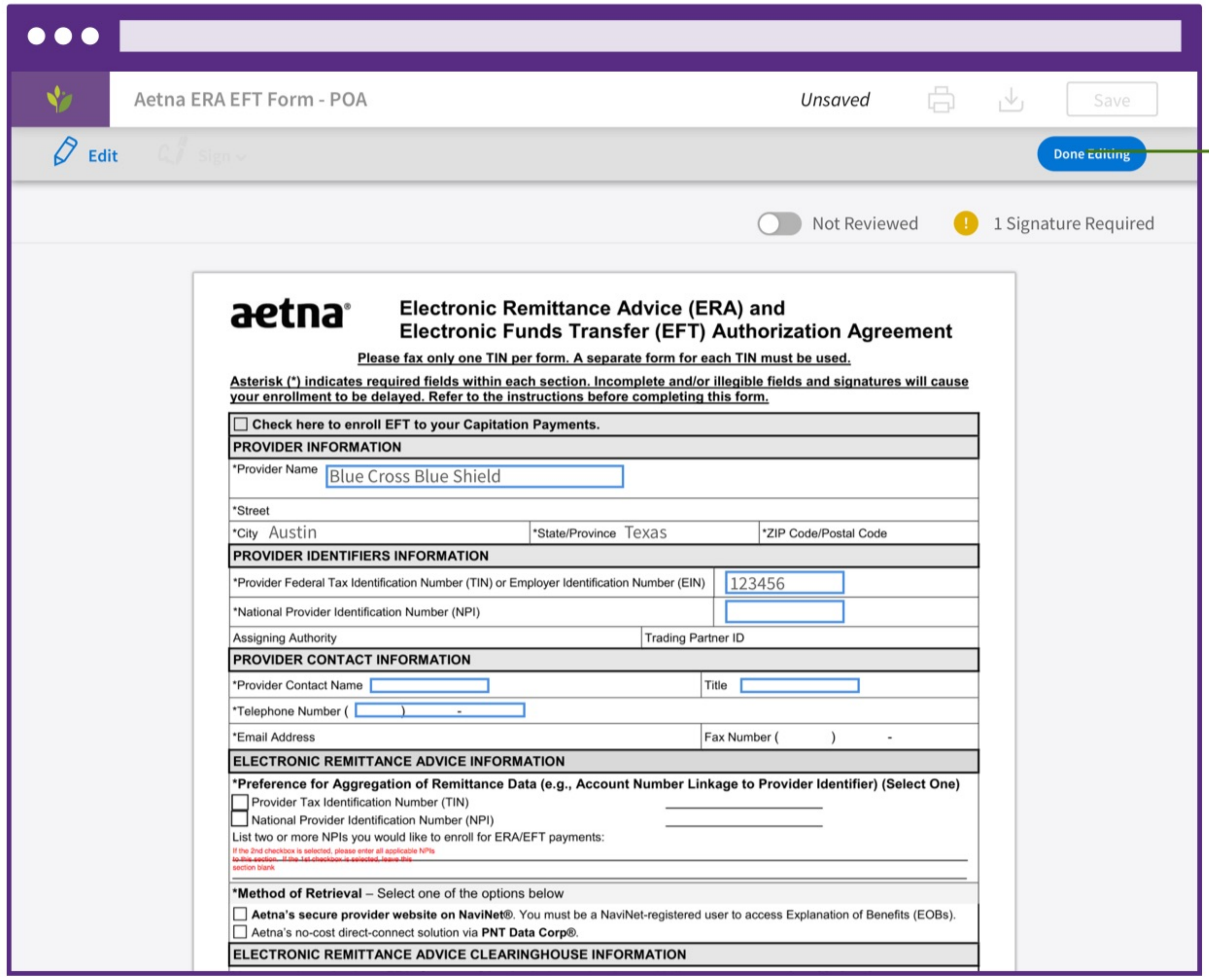
Intend to Use:	4.5 / 5
Meet Requirements:	3.5 / 5
Usefulness:	5 / 5
Completed Time:	40sec

1: Strongly Disagree; 5: Strongly Agree

How?

RITE Usability Testing

New Changes

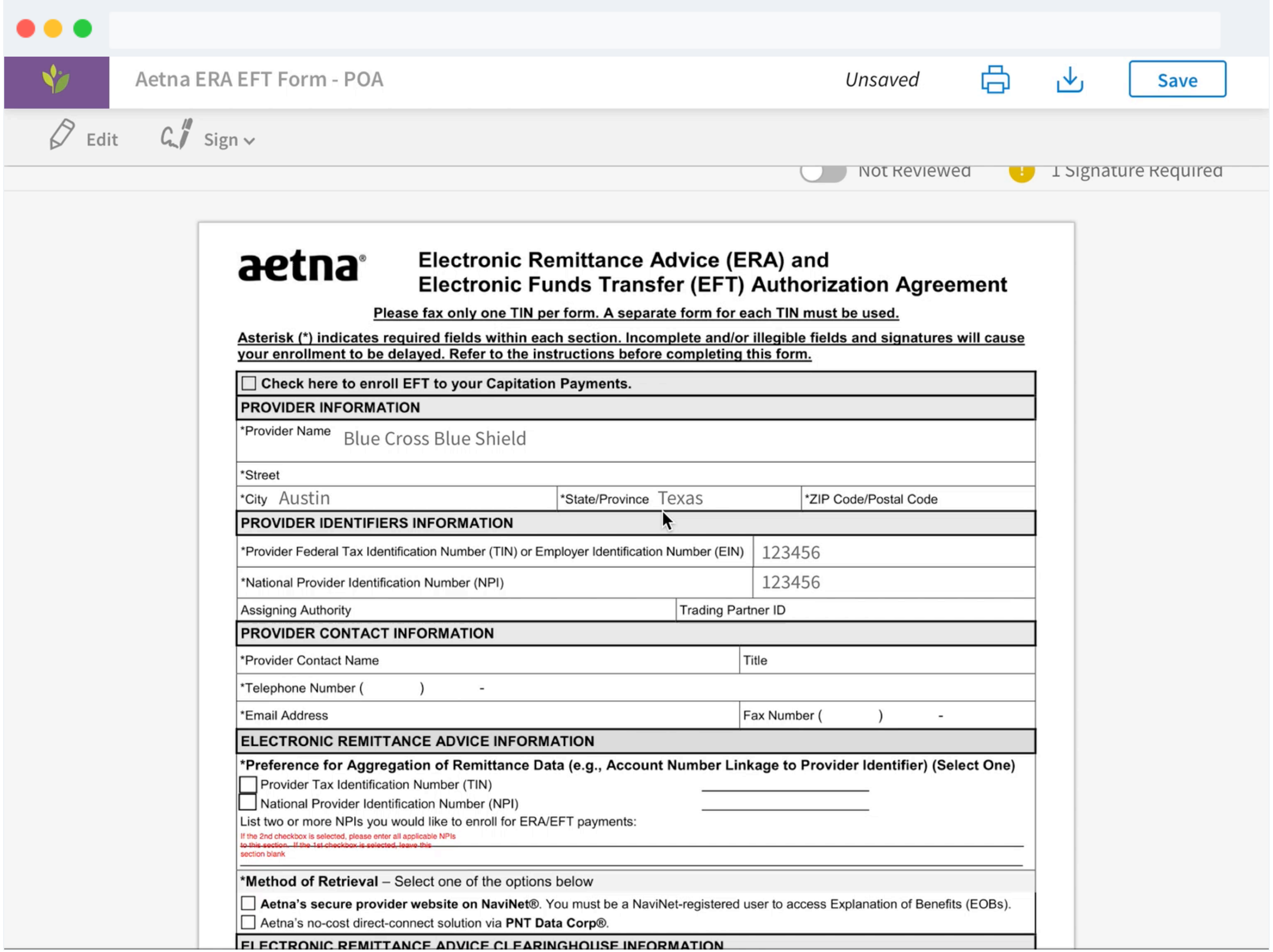


Change:
Increase the color contrast between viewing and editing or signing model

Final Delivery

Prototype

Edit the form



Features:

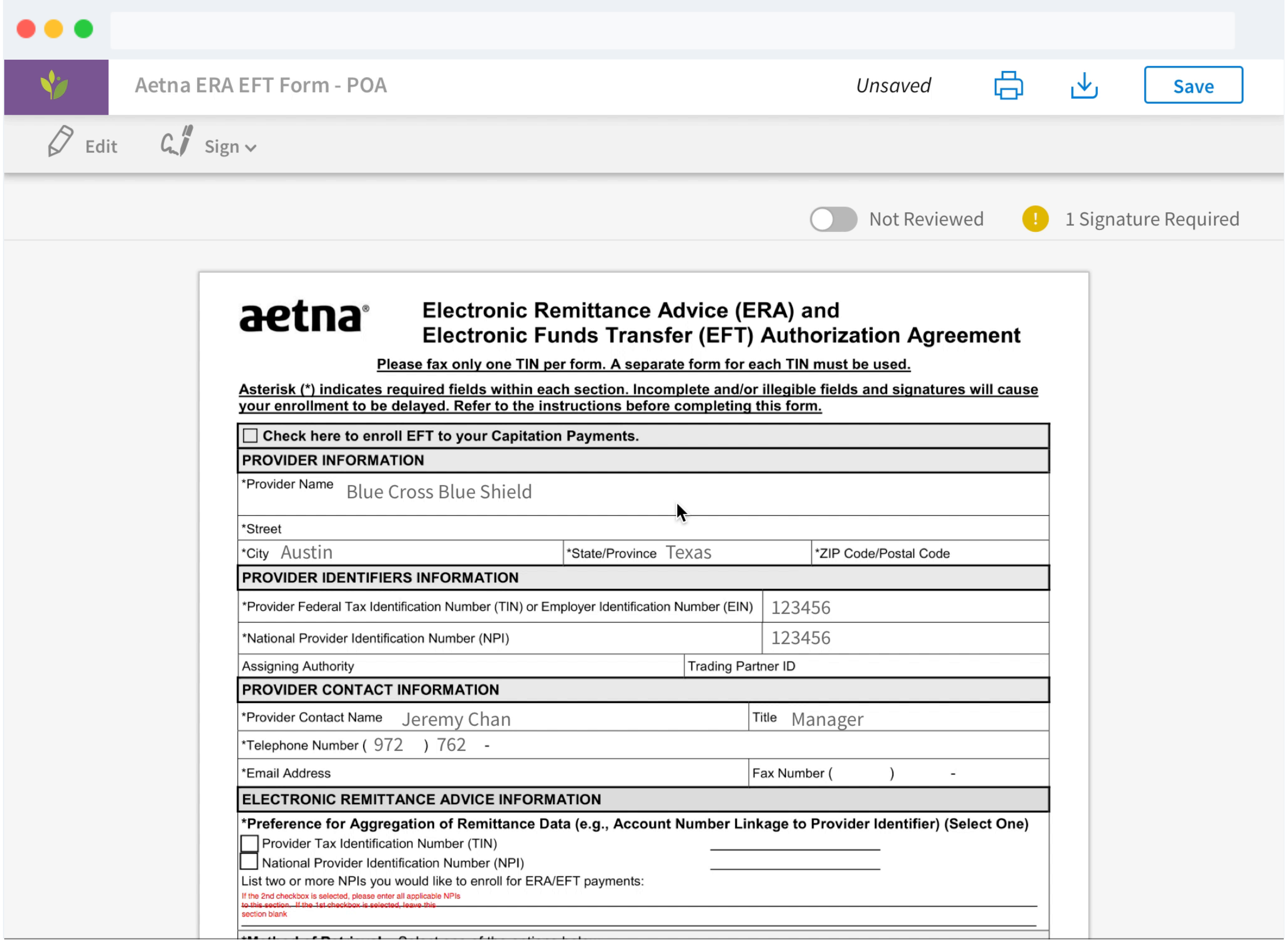
Adobe Sign

Pop-up a notification when the document is stored

Final Delivery

Prototype

Sign the form



aetna®

Electronic Remittance Advice (ERA) and Electronic Funds Transfer (EFT) Authorization Agreement

Please fax only one TIN per form. A separate form for each TIN must be used.

Asterisk (*) indicates required fields within each section. Incomplete and/or illegible fields and signatures will cause your enrollment to be delayed. Refer to the instructions before completing this form.

☐ **Check here to enroll EFT to your Capitation Payments.**

PROVIDER INFORMATION

*Provider Name Blue Cross Blue Shield

*Street

*City Austin | *State/Province Texas | *ZIP Code/Postal Code

PROVIDER IDENTIFIERS INFORMATION

*Provider Federal Tax Identification Number (TIN) or Employer Identification Number (EIN) 123456

*National Provider Identification Number (NPI) 123456

Assigning Authority | Trading Partner ID

PROVIDER CONTACT INFORMATION

*Provider Contact Name Jeremy Chan | Title Manager

*Telephone Number (972) 762 -

*Email Address | Fax Number ( ) -

ELECTRONIC REMITTANCE ADVICE INFORMATION

***Preference for Aggregation of Remittance Data (e.g., Account Number Linkage to Provider Identifier) (Select One)**

☐ Provider Tax Identification Number (TIN)

☐ National Provider Identification Number (NPI)

List two or more NPIs you would like to enroll for ERA/EFT payments:

If the 2nd checkbox is selected, please enter all applicable NPIs to this section. If the 1st checkbox is selected, leave this section blank

Features:

Adobe Sign

Pop-up a notification when the document is stored

An indicator shows where and how many signatures are required

What I learned

- Collaborate effectively with SCRUM teams including Product Owner, Engineers, and Designers in an agile environment
- Support every step of the user experience from concept to execution
- Translate user insights into concepts and user journeys, and visualize design ideas using sketching, UI flows and prototypes
- Incorporate user research and usability testing to iterate on and improve design solutions

ViewSonic Internship

What is my role?

As a UX designer, I planned, defined scope and UI of this early-stage product. I worked collaborating on ideation, and worked individually on research, synthesizing, wireframing and prototyping.

My team

Me

UX Designer

Product Manager

4 Developers

What is the challenge?

ViewSonic would like to expand their market to the education industry by merging its interactive white board with new SaaS-based Classroom web application that helps teachers to achieve student success.

MVP

However,

The Current MVP of Classroom web application is built based on assumptions.

Build the right thing

Why?

Why does the problem matter to the company and users?

Why?

Desktop Research

Why did I conduct desktop research?

By conducting desktop research, it helps me to get deep knowledge about the education problem space

Literature Review

Primary Sources Report from Scholastic surveyed more than 20,000 public school teachers

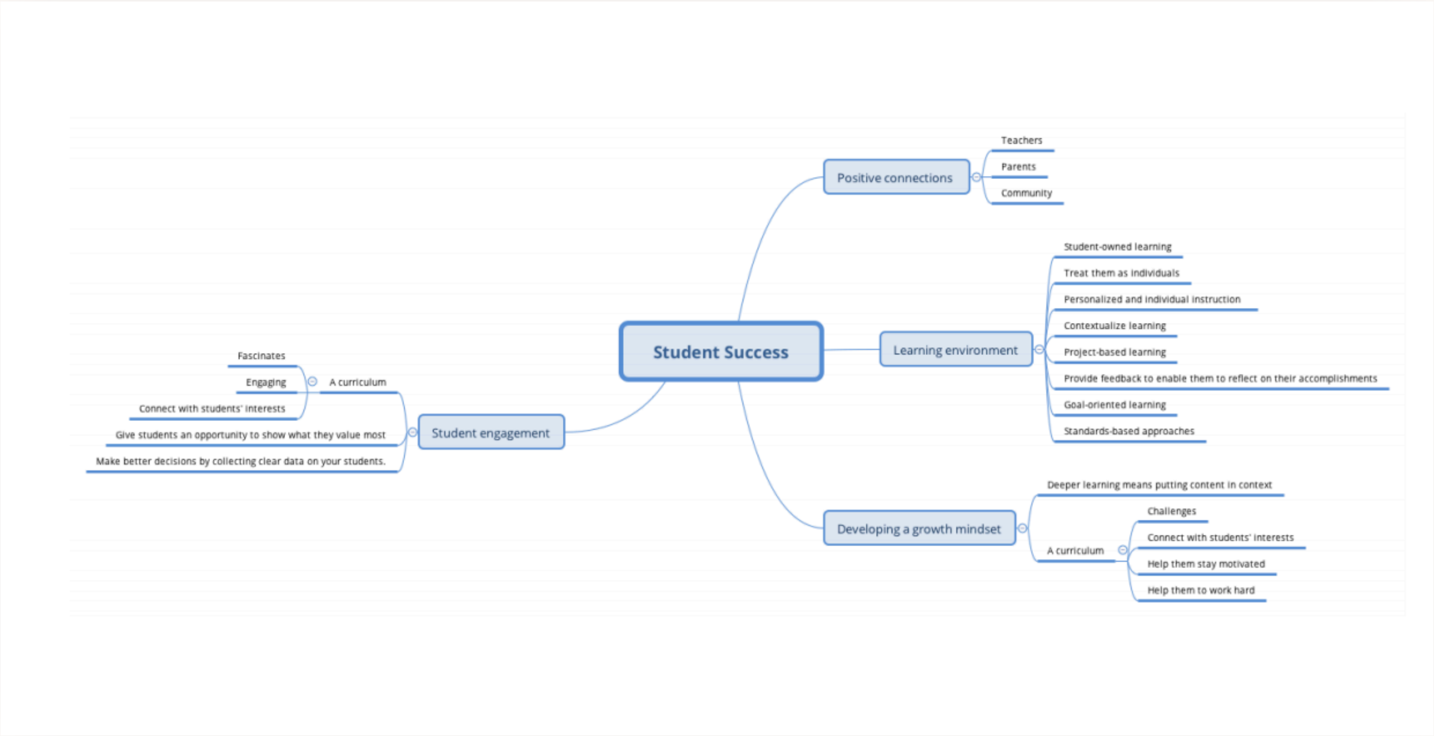
Academic research that helps anyone rethink high school.

Key Insights

- To achieve student success, teachers have to prepare high-interest class material to engage students.
- Most of the teachers report using websites to find or share lesson.

Synthesis

- Mind Mapping



Why?

The Value of Solving the Problem

A study from SCHOLASTIC states that the most effective way to prepare high-interest classroom materials is taking feedback and advices from experienced colleagues.

However,

90% of teachers spend most of their time disciplining students.

80% of teachers would like to spend more time to collaborate with colleagues.

The Value for the company

- Consistent product ecosystem
- Increase the revenue

The Value for teachers

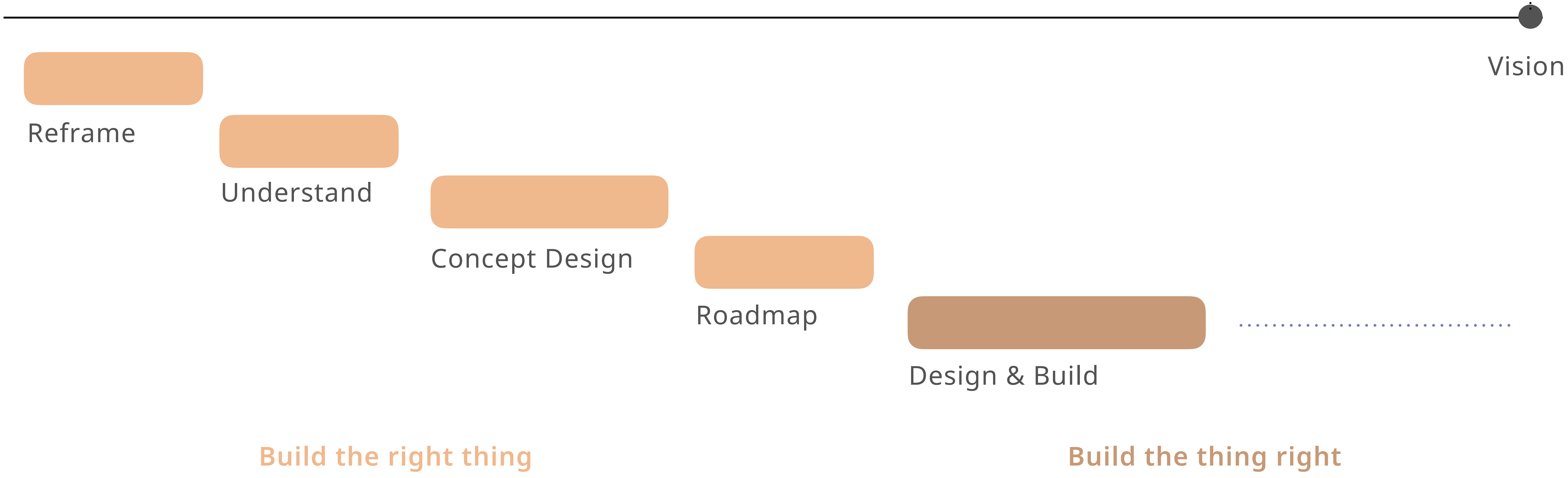
- Help students to reach individual achievements
- Easily prepare classroom materials

Why?

Project Kickoff

Target User User Goal

A K-12 teacher can help students to reach individual achievements through preparing high-interest and engaging class materials.



Why?

Research Plan

myViewBoard Classroom | Research Plan

Prepared by Jeremy Chen (UX Design Intern) | Jan 2019

Introduction and Background

Project Plan

Approach

Research Questions/Hypotheses

The number of research questions and their level of detail will vary based on the scope of your project and research. There should be a dedicated section for the research questions or hypotheses.

QUESTION/HYPOTHESIS	IMPORTANCE
We think teachers have a hard time to prepare lesson plan efficiently: • What are the difficulties or experience they have when preparing a lesson plan? • How do they measure the impacts of their lesson plan? • How do they get suitable resources to prepare a lesson plan?	Critical
We think teachers are struggling to help a student achieve success: • What are the experiences they have when teaching in the class? • What are the activities they want to avoid during teaching?	Critical

1

Target User

Primary User: K-12 Teachers

Assumption 1

We think teachers have a hard time to prepare lesson plan efficiently.

Assumption 2

We think your Classroom web application help teacher to increase student engagement.

Build the right thing

Where?

Where does our target user suffer difficulties?

Where?

User Interviews

Why did I conduct user interviews?

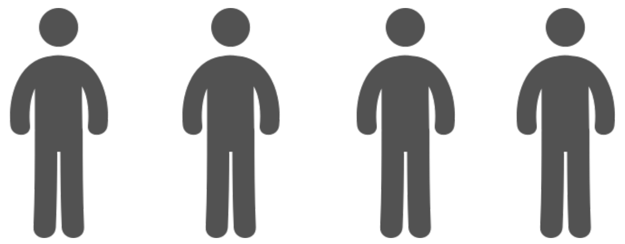
User Interviews

Validate

Assumption 1

We think teachers have a hard time to prepare lesson plan efficiently.

How many users did I interview?

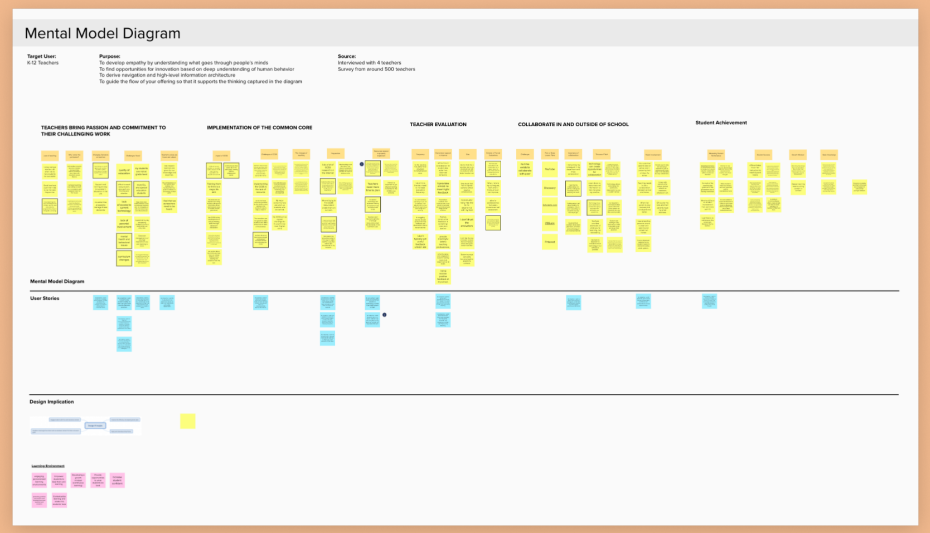


Key Questions

- What are your experience of preparing a course? How do you feel about it?
- What did you do to engage students during class?
- How do you feel about your current way of achieving student success?

Synthesis

- Mental Model Diagram



Where?

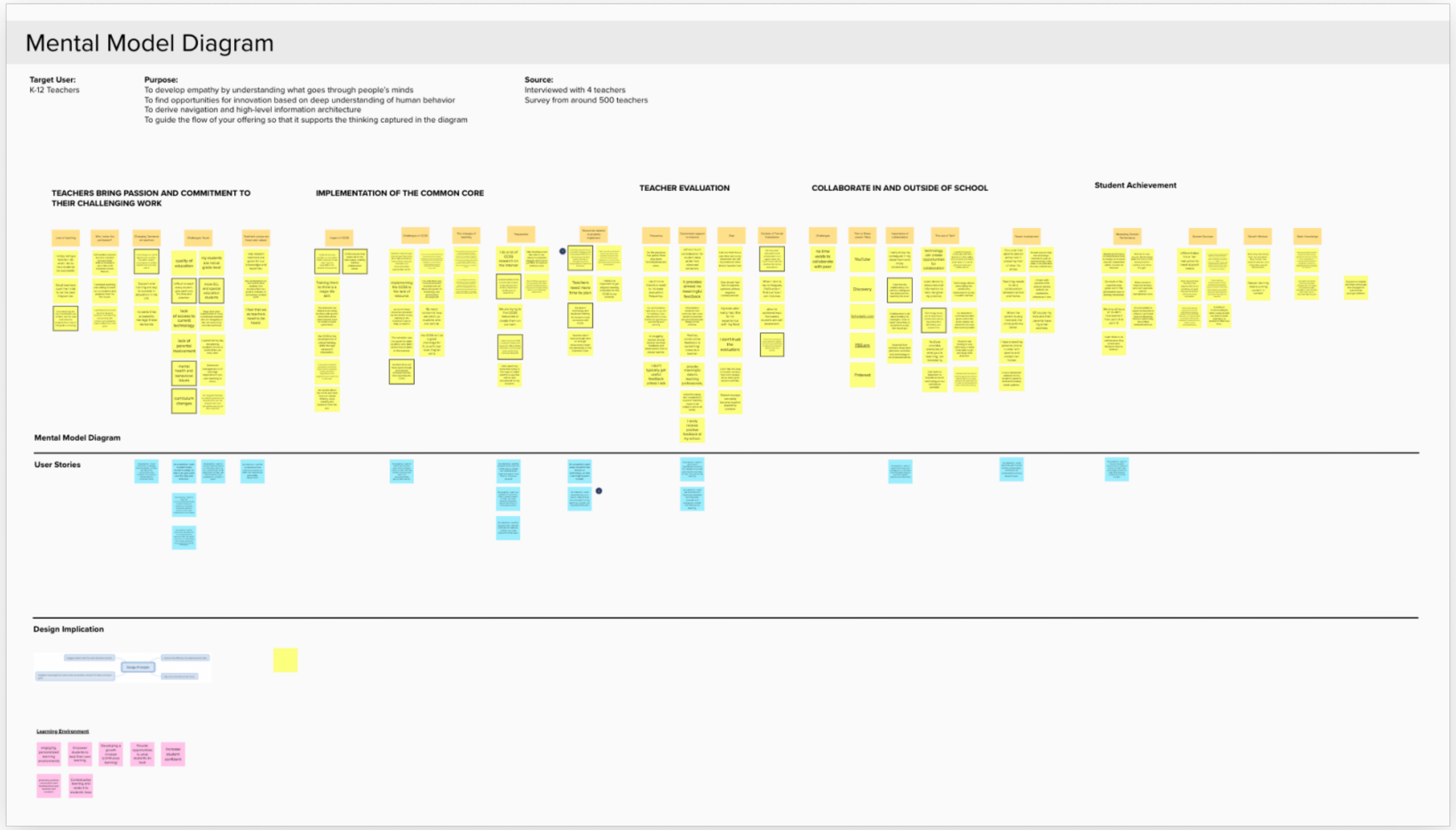
User Interviews - Mental Model Diagram

Objective

- To develop empathy by understanding what goes through people's minds.
- To find opportunities for innovation based on deep understanding of human behavior.

Tool

- Mural



Where?

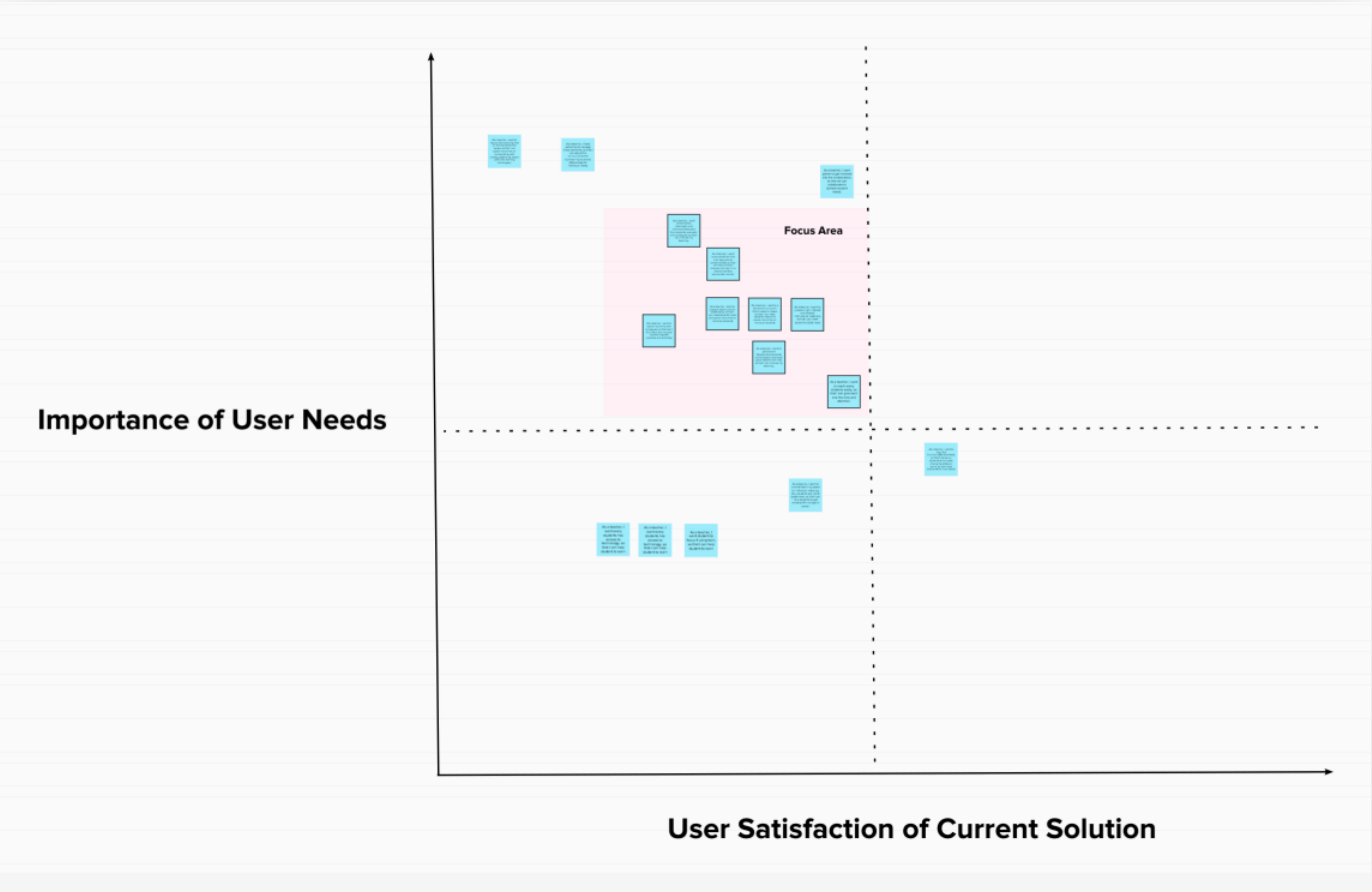
Prioritize User Needs

Objective

- Prioritize user needs based on importance and satisfaction framework.

Tool

- Survey
- Mural



User Need

Where?

User Stories

As a	Teacher		
I want to	create and prepare high–interest and leveled lesson materials	so that	I can meet student's need and spend more time on individual students.
I want to	have personalized and meaningful feedback from students, evaluator and colleagues	so that	I can improve my teaching.
I want to	reach every students easily	so that	I can give each students the time and attention.

Build the right thing

What?

What concepts are we building to meet user needs?

What?

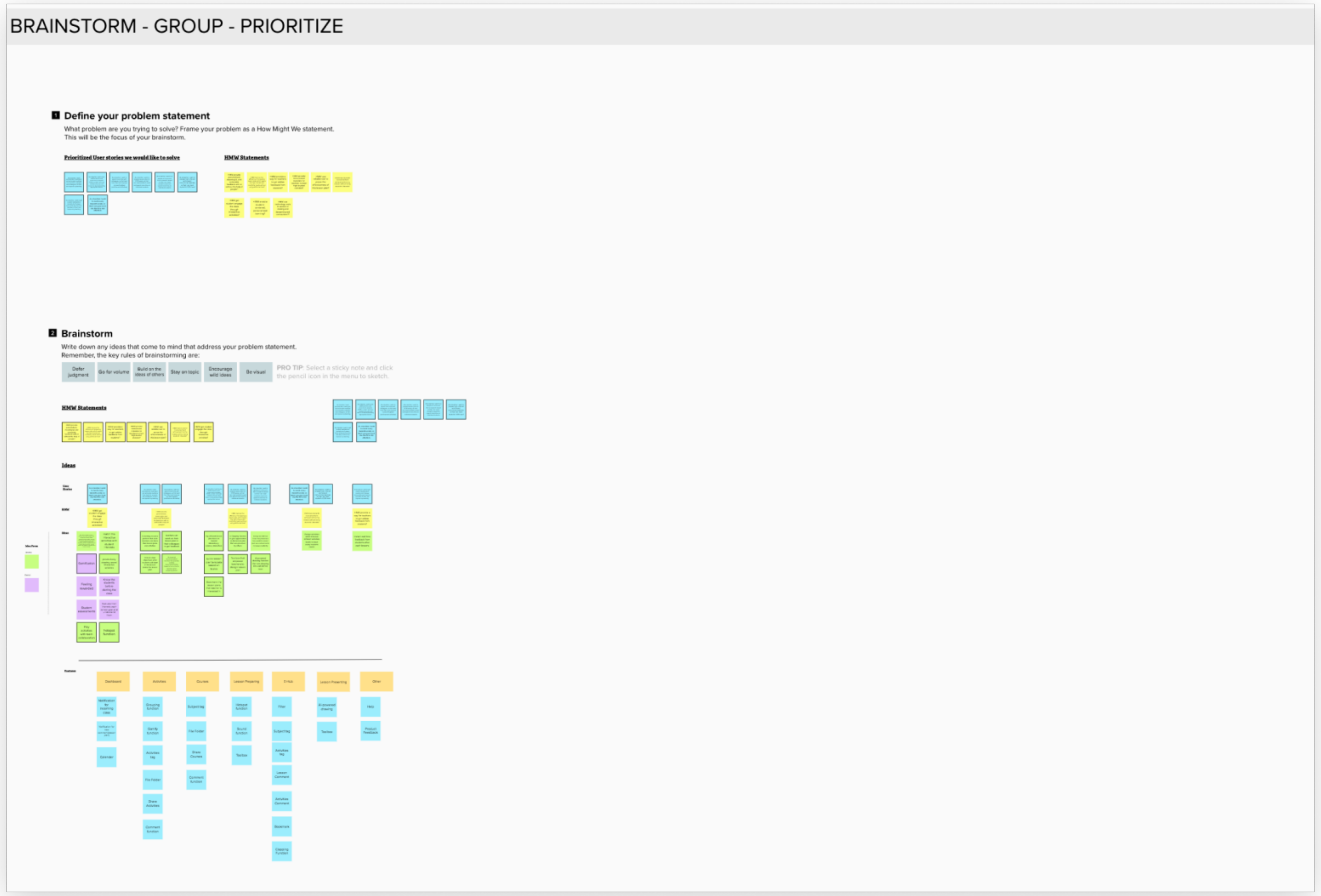
Design Ideation / Define MVP

What is the purpose of this design ideation workshop?

The purpose of this ideation workshop is to ideate HMW statements that meet our user needs and bring our HMW statements to a more concrete concept considering about business, technology and user. The outcome of this workshop would have a feature list and a first version MVP for future release.

My role

I am a facilitator who helps my teammates to generate wild ideas!



What?

Concept

User Stories

As a teacher, **I want to create and prepare high–interest and leveled lesson materials**, so that I can meet student's need and spend more time on individual students.

As a teacher, **I want to have personalized and meaningful feedback from students, evaluator and colleagues**, so that I can improve my teaching.

As a teacher, I want to **reach every students easily**, so that I can give each students the time and attention..

Features

Create lesson materials and interactive activities to engage students

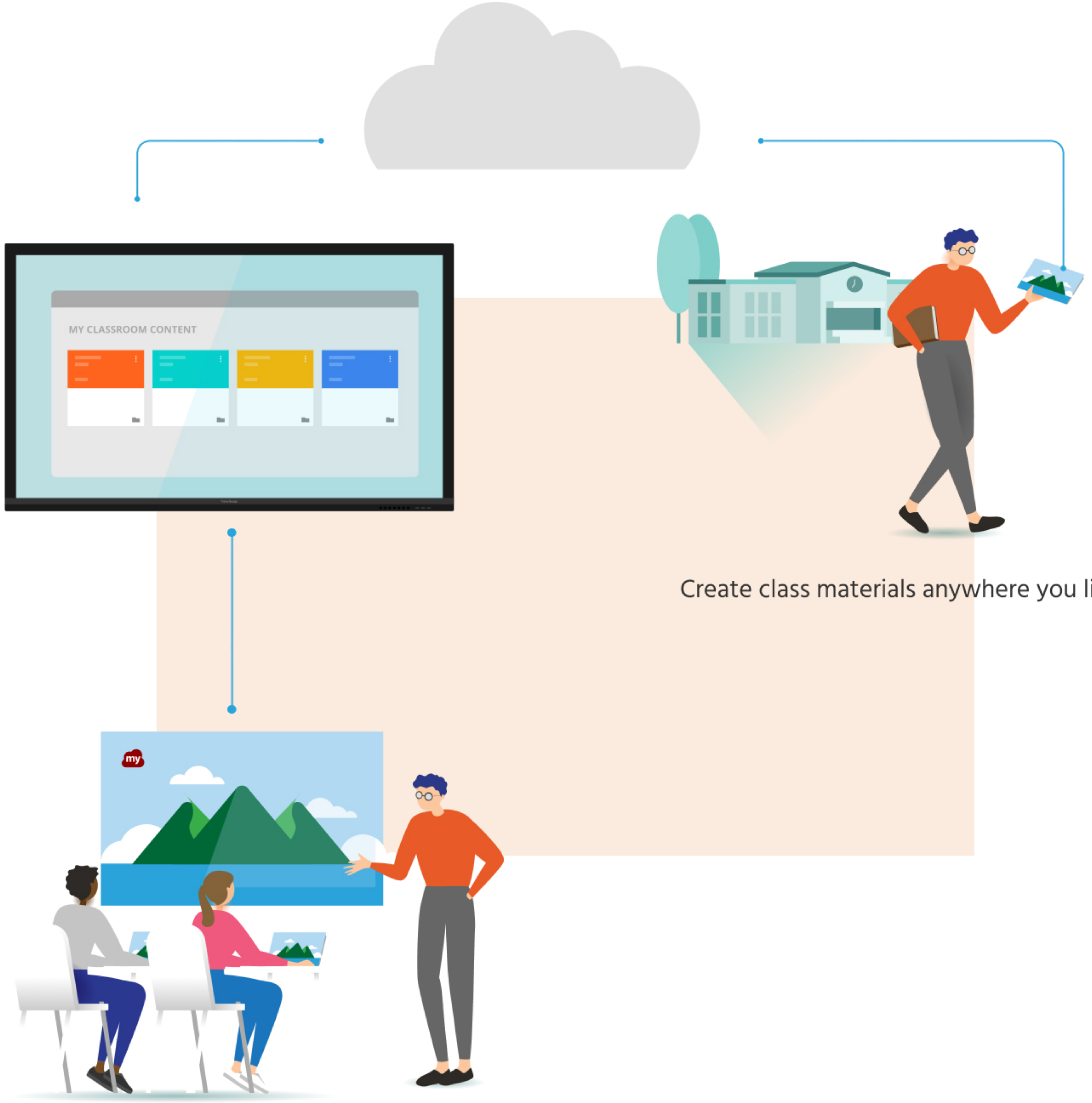
Share lessons with colleagues to get meaningful comments and advices

Allow students to interact with classroom content in real time from any location

Share and learn how to create lessons by E-Hub, a curated library for teachers

What?

Concept



Create class materials anywhere you like

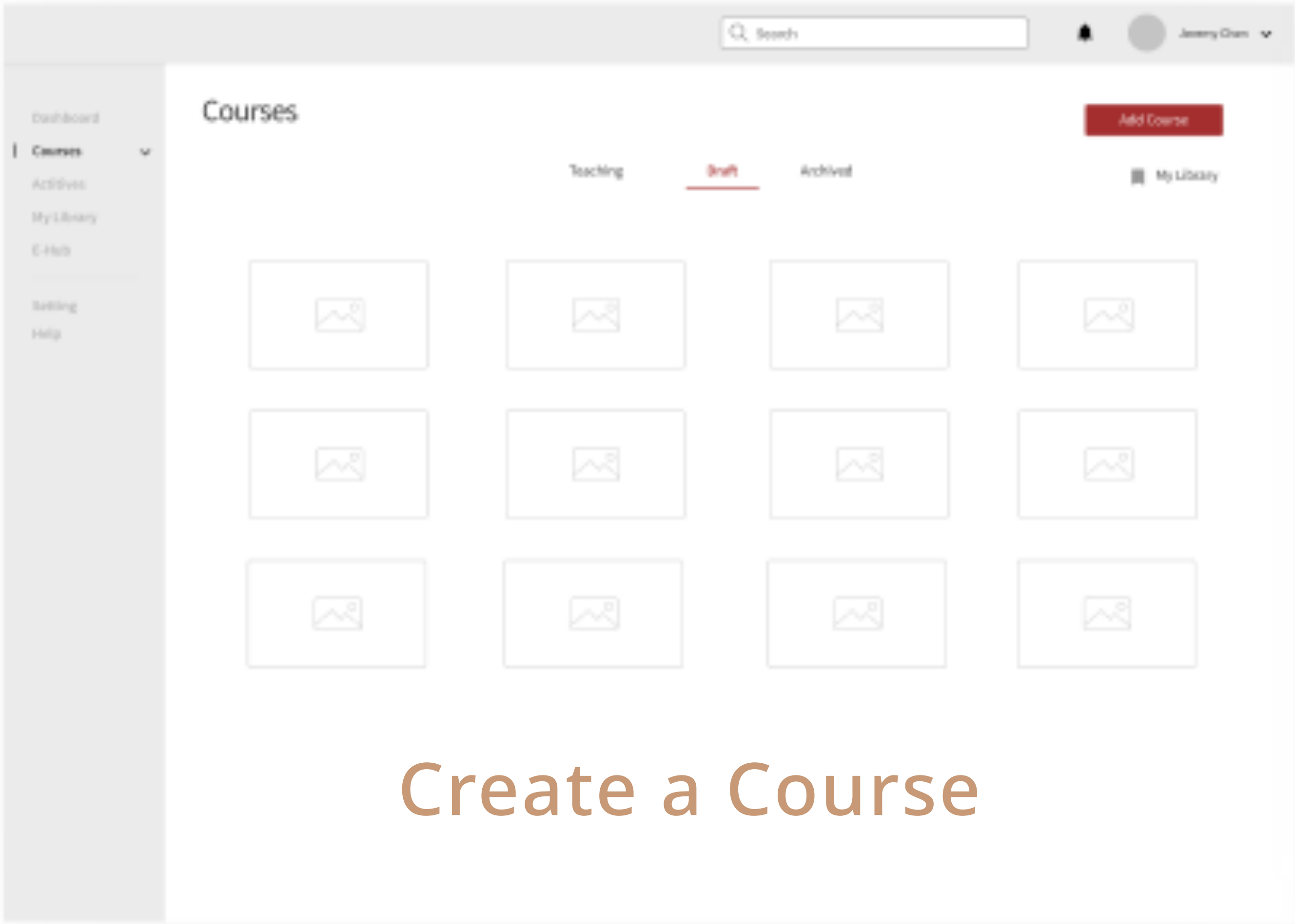
Students are able to access the lesson material through their browser.

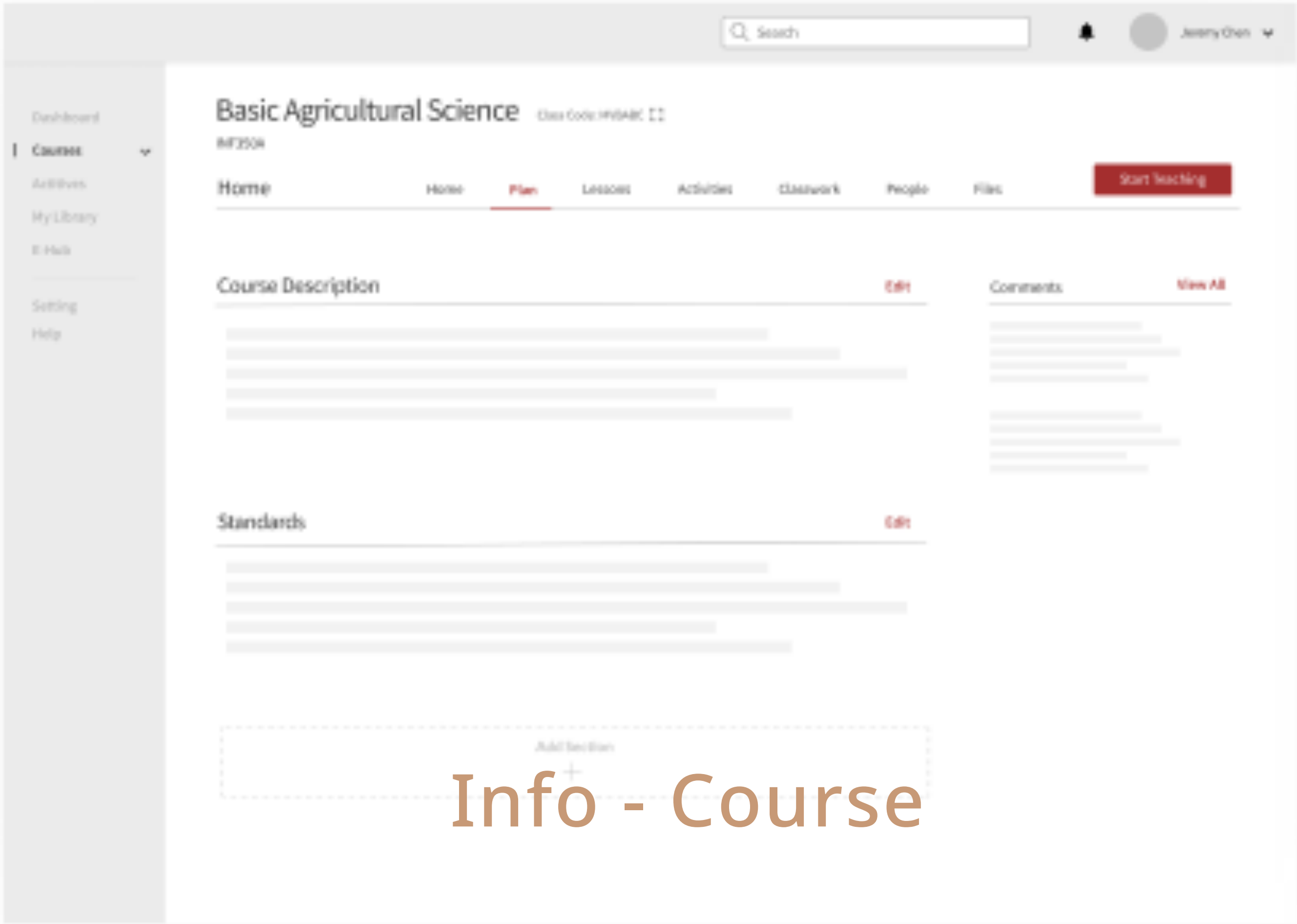
What?

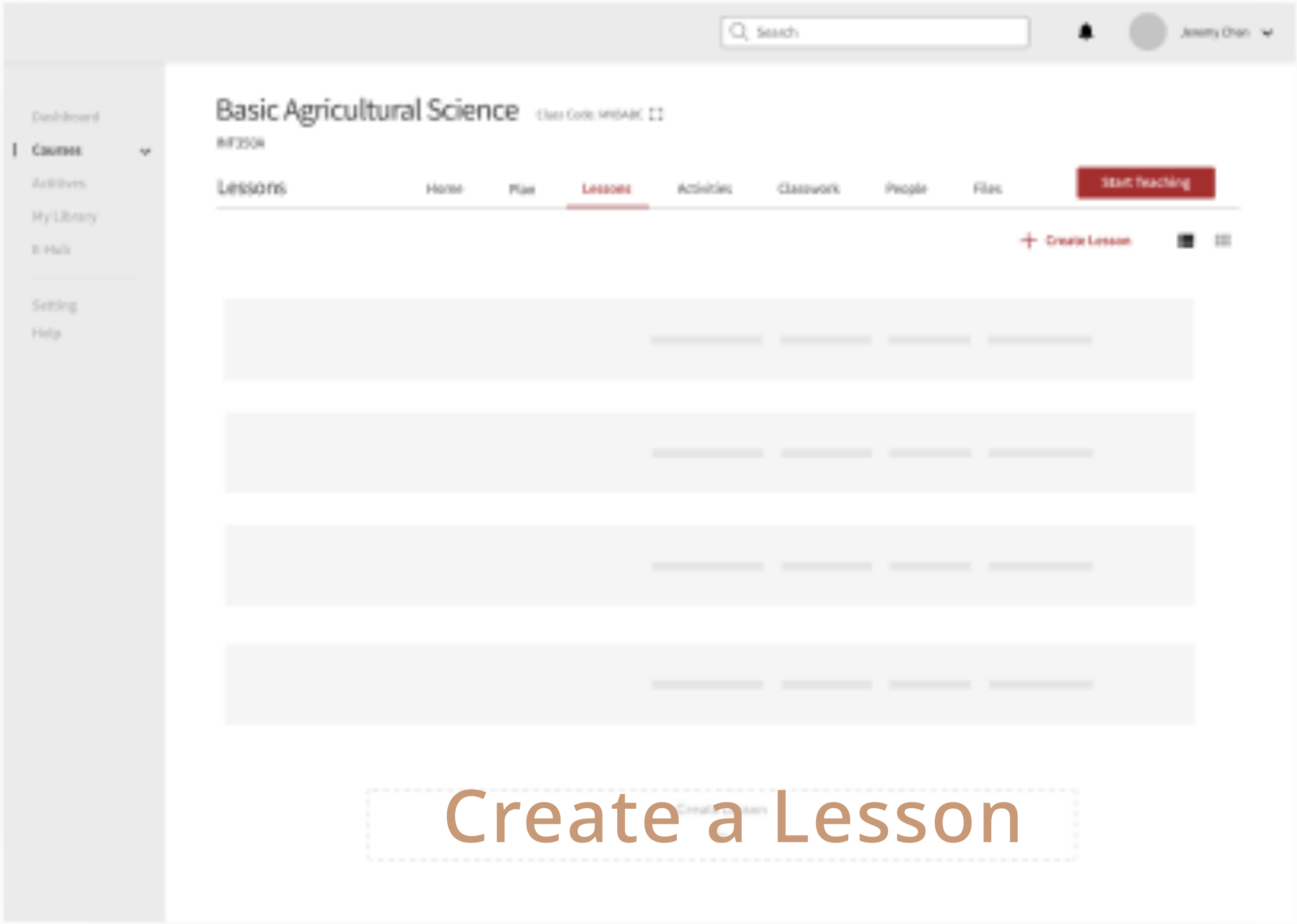
Information Architecture

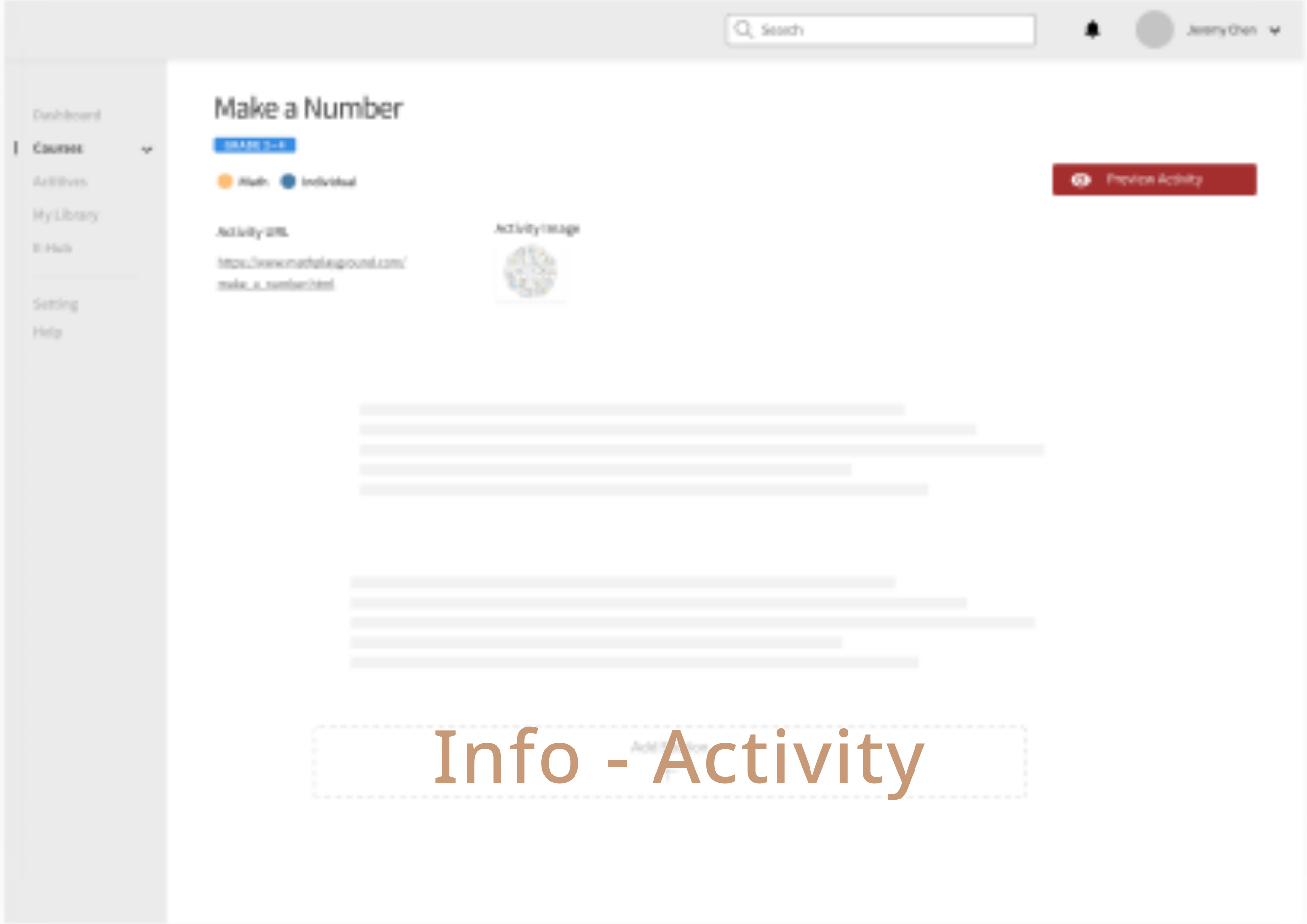
What?

Wireframing





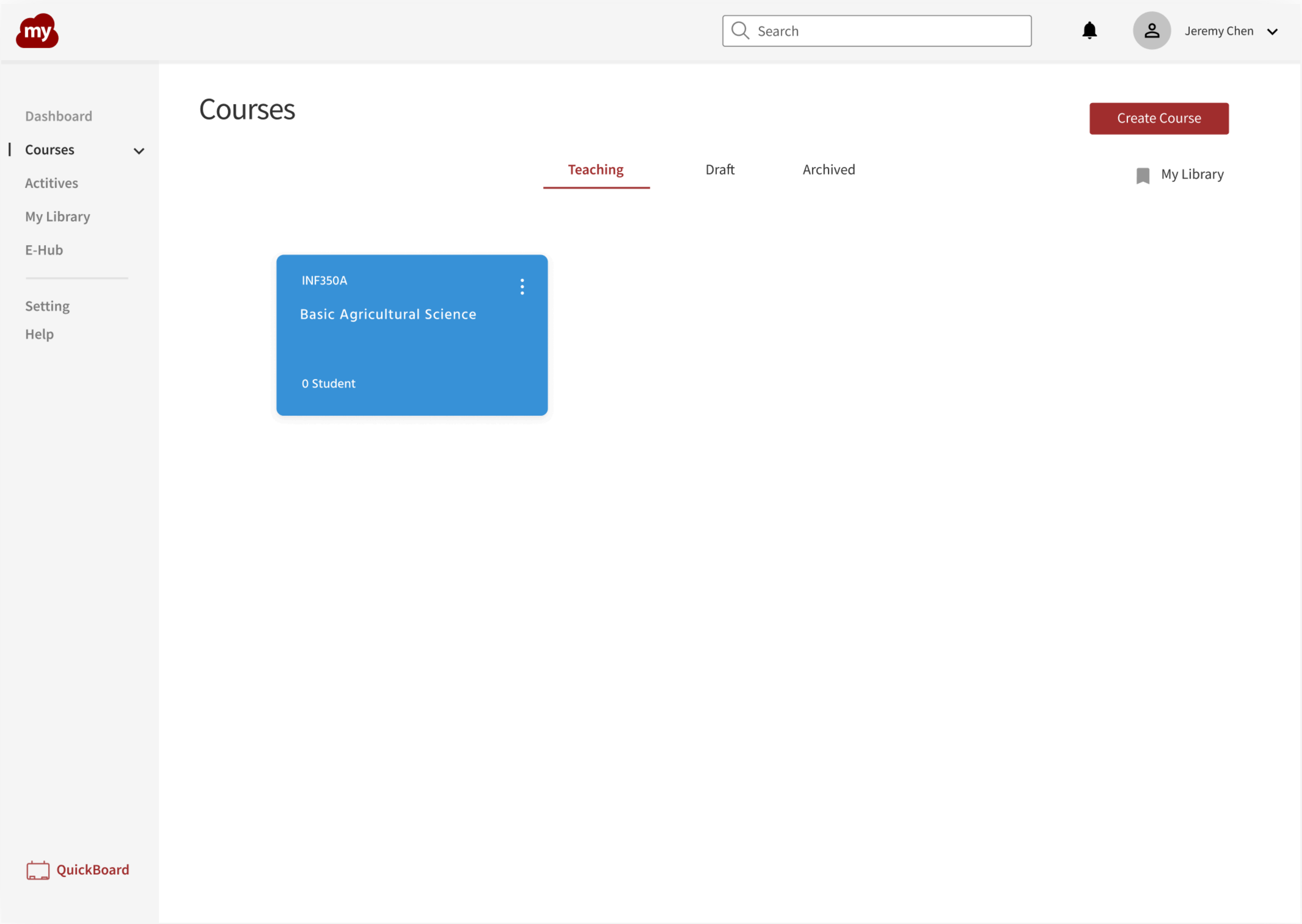




What?

Prototype

Prototype 1.0



Build the thing right

How?

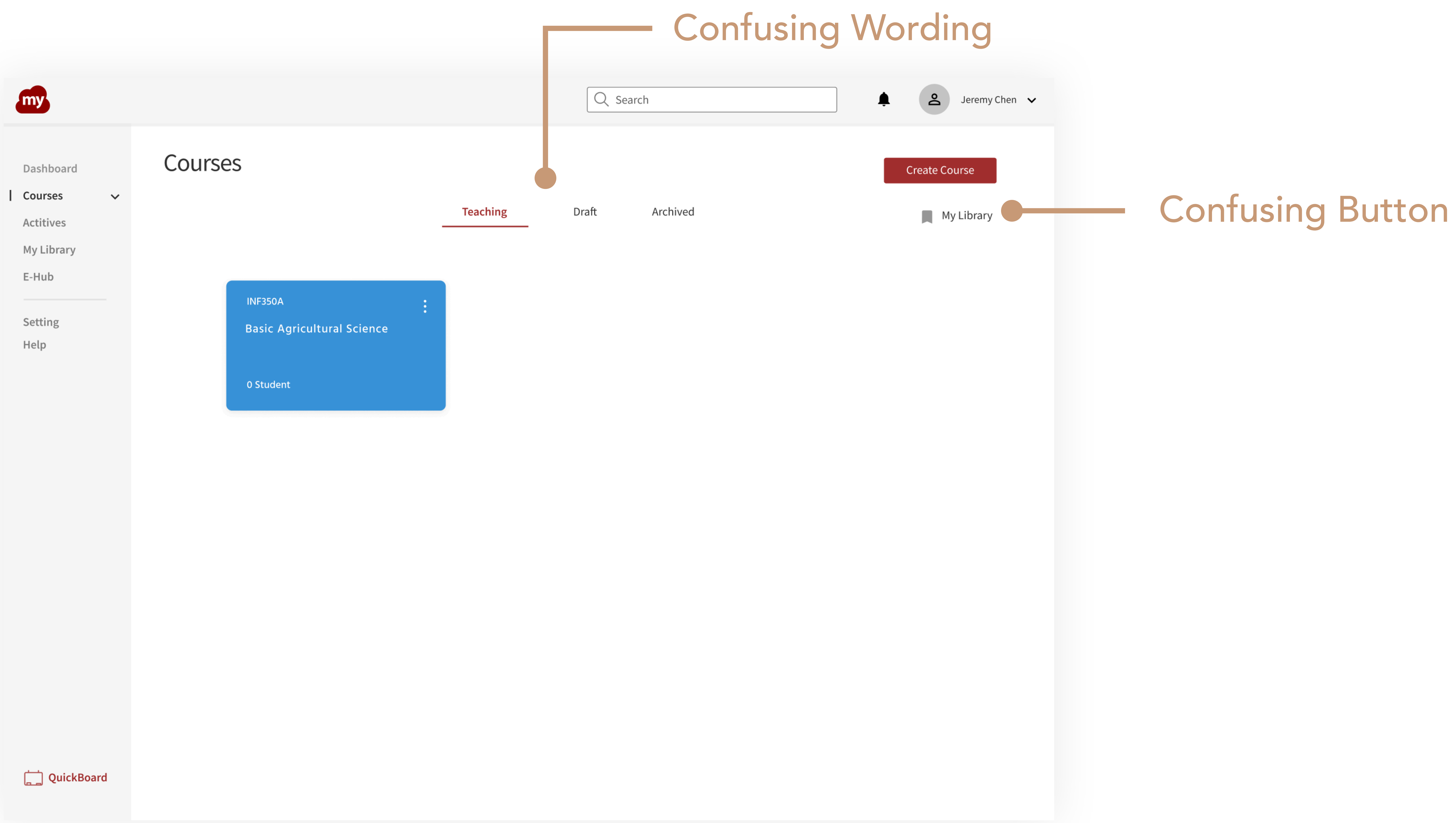
How are we going to evaluate our solution?

How?

Stakeholder Review

What is the purpose of this stakeholder review?

Alignment is necessary to build the right thing. Stakeholder review (design review) is a crucial way of gathering internal feedback to iterate the UI. We iterate rapidly and increase fidelity as we move towards a pilot.

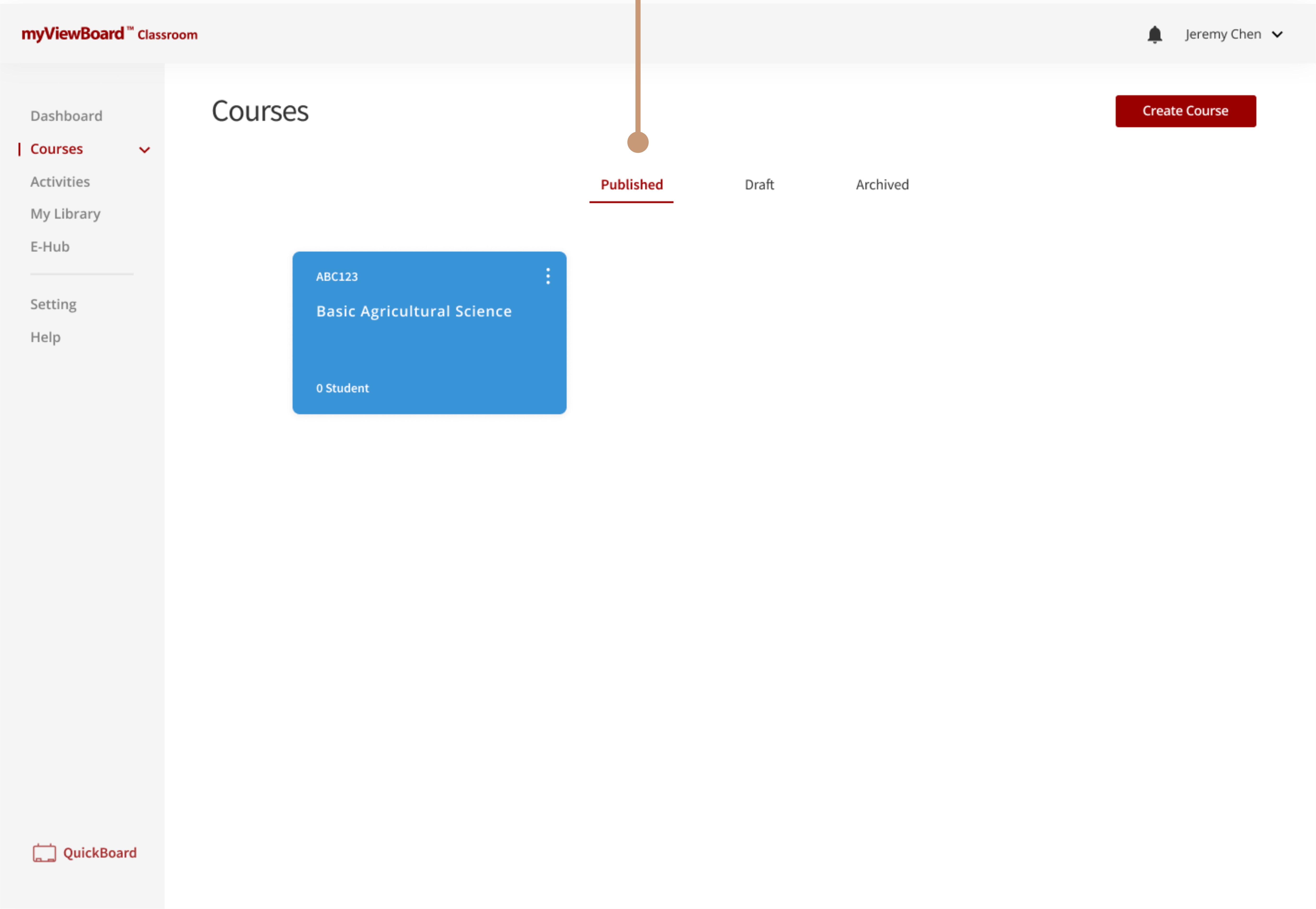


How?

Stakeholder Review

New Changes

Change the word to "Published"



How?

Define the Success Metrics

Register

By the end of year, we would like to reach 10,000 registered schools.

User Satisfaction

NPS Score is higher than 9.0

Usability Success Metrics

- The measurement of "Intention To Use" is higher than 4.0.
- The measurement of "Meets The Requirement" is higher than 4.0.
- The measurement of "Perceived Usefulness" is higher than 4.5.

How?

Usability Testing

Why did I conduct usability testing?

Usability Testing

Validate →

Assumption 2

We think your Classroom web application help teacher to increase student engagement.

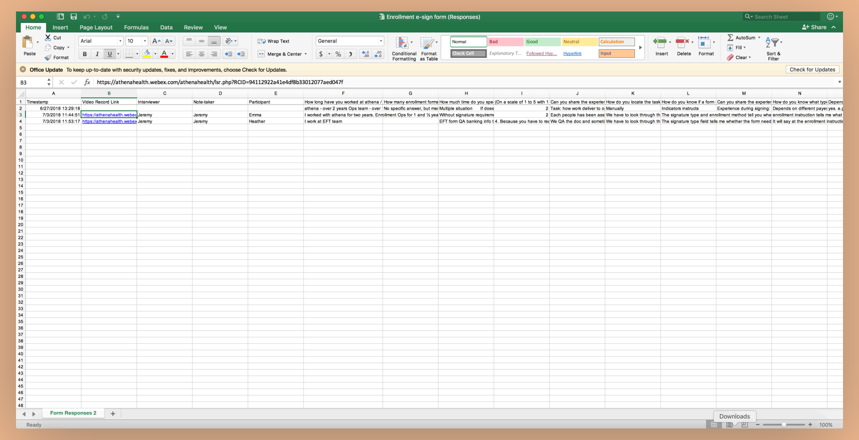
How many users did I test?

Key Scenarios

- Creating a course
- Create a lesson
- Prepare a course from E-Hub
- Sharing a course with colleagues

Synthesis

- Excel Sheet



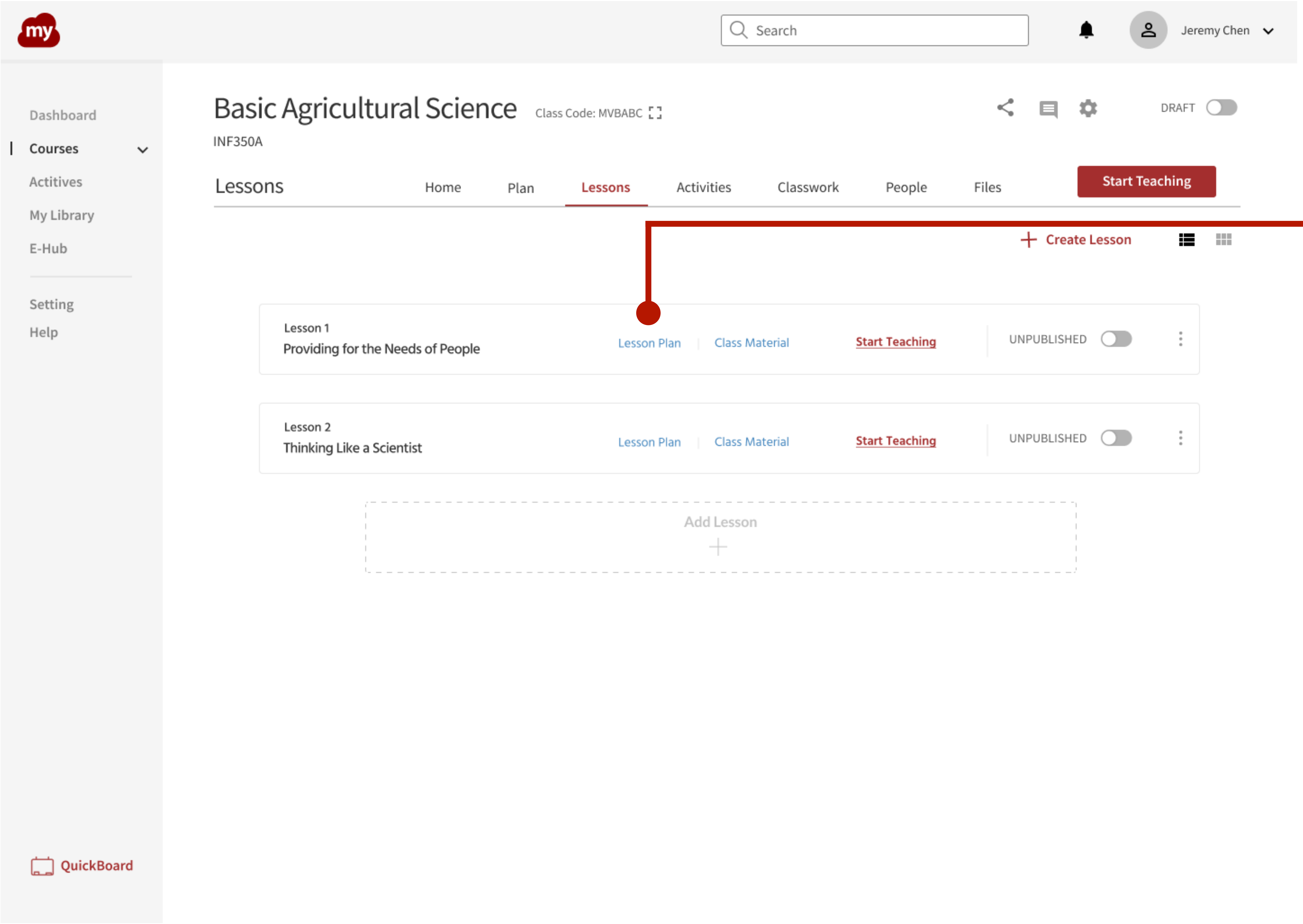
How?

Usability Testing

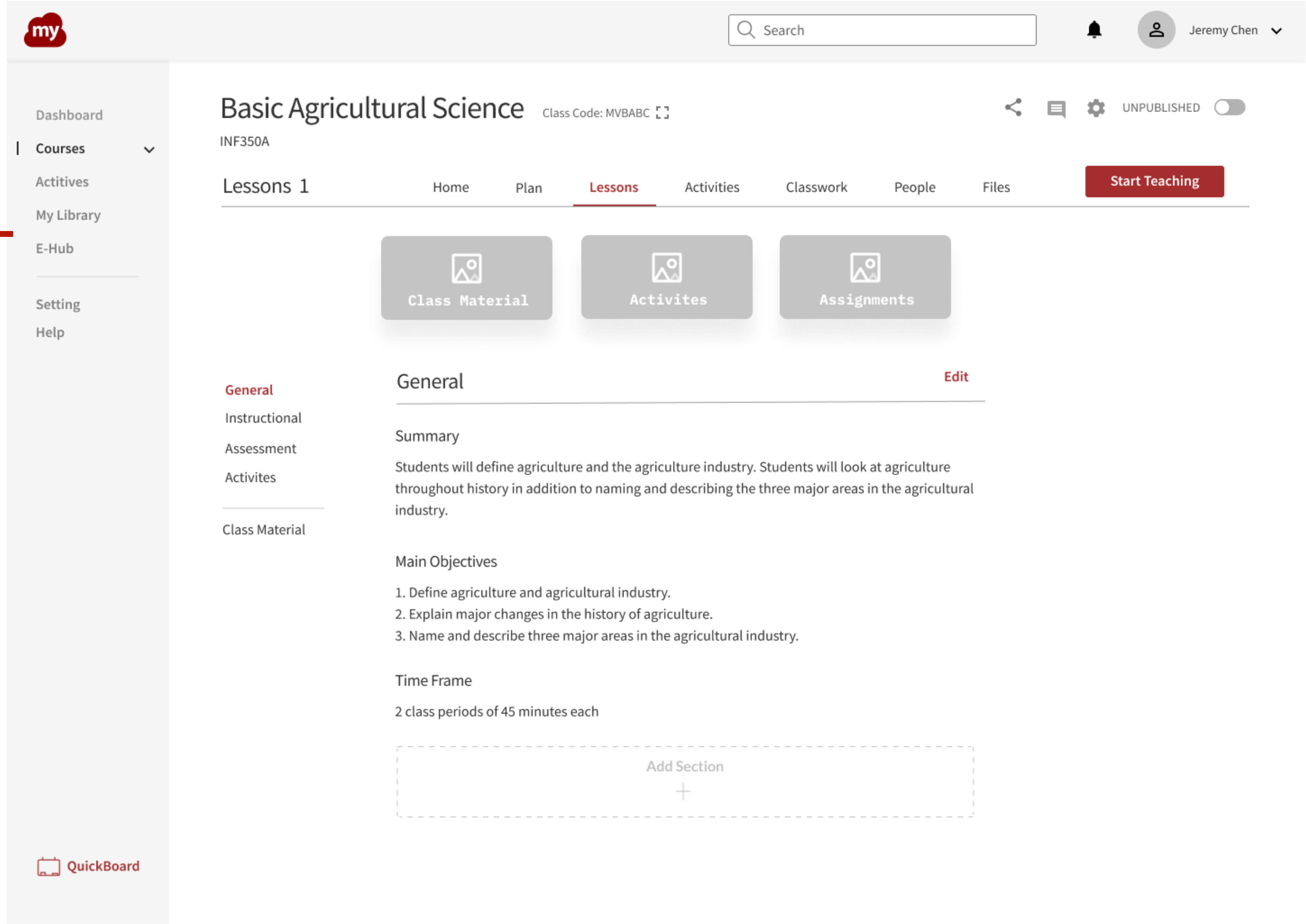
Iteration 1

Finding:

3 of 3 participants think it is not necessary to have an information pages for lesson.



Info - Course

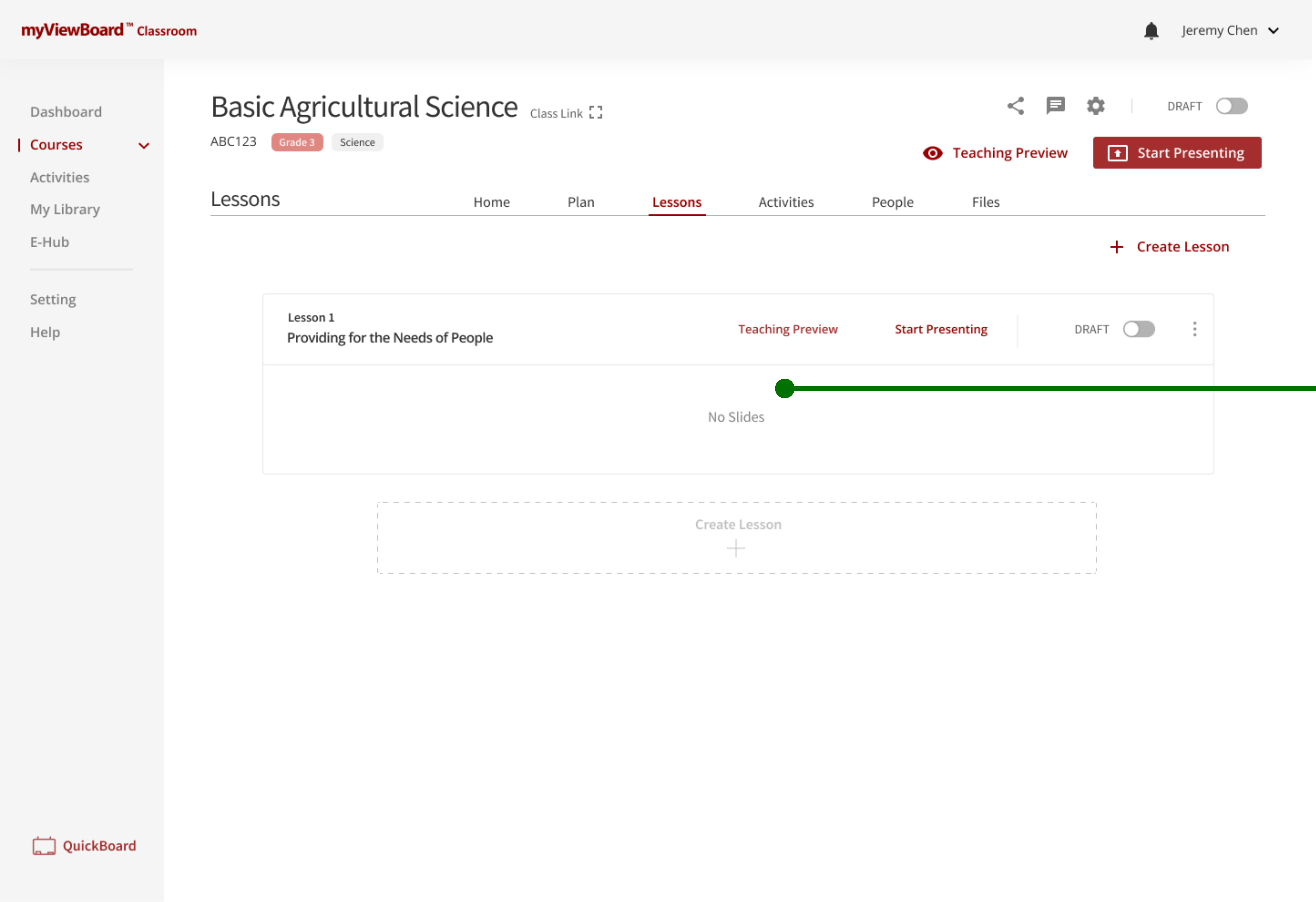


Info - Lesson

How?

Usability Testing

New Changes



New Changes:

Delete the information page and visualize the lesson material(slides)

How?

Usability Testing

Result

Participants

Teacher

Usefulness

1: strongly disagree, 5: strongly agree

4.4 / 5

Meets Requirements

1: strongly disagree, 5: strongly agree

4.2 / 5

Intend to Use

1: strongly disagree, 5: strongly agree

4.1 / 5

Tasks	Success Rate __ of 3 participants success	Average difficulty 1:very difficult, 7:very easy
Create a course	3 / 3	7
Create a lesson	3 / 3	7
Create an activity	2 / 3	5.8
Prepare a course from E-Hub	2 / 3	6
Sharing a Course to E-Hub	3 / 3	7

Quotes

“The tool is self-explanatory. Everything is straight forward. I am struggling for the first time, because I still have the past workflow of using Canvas.”

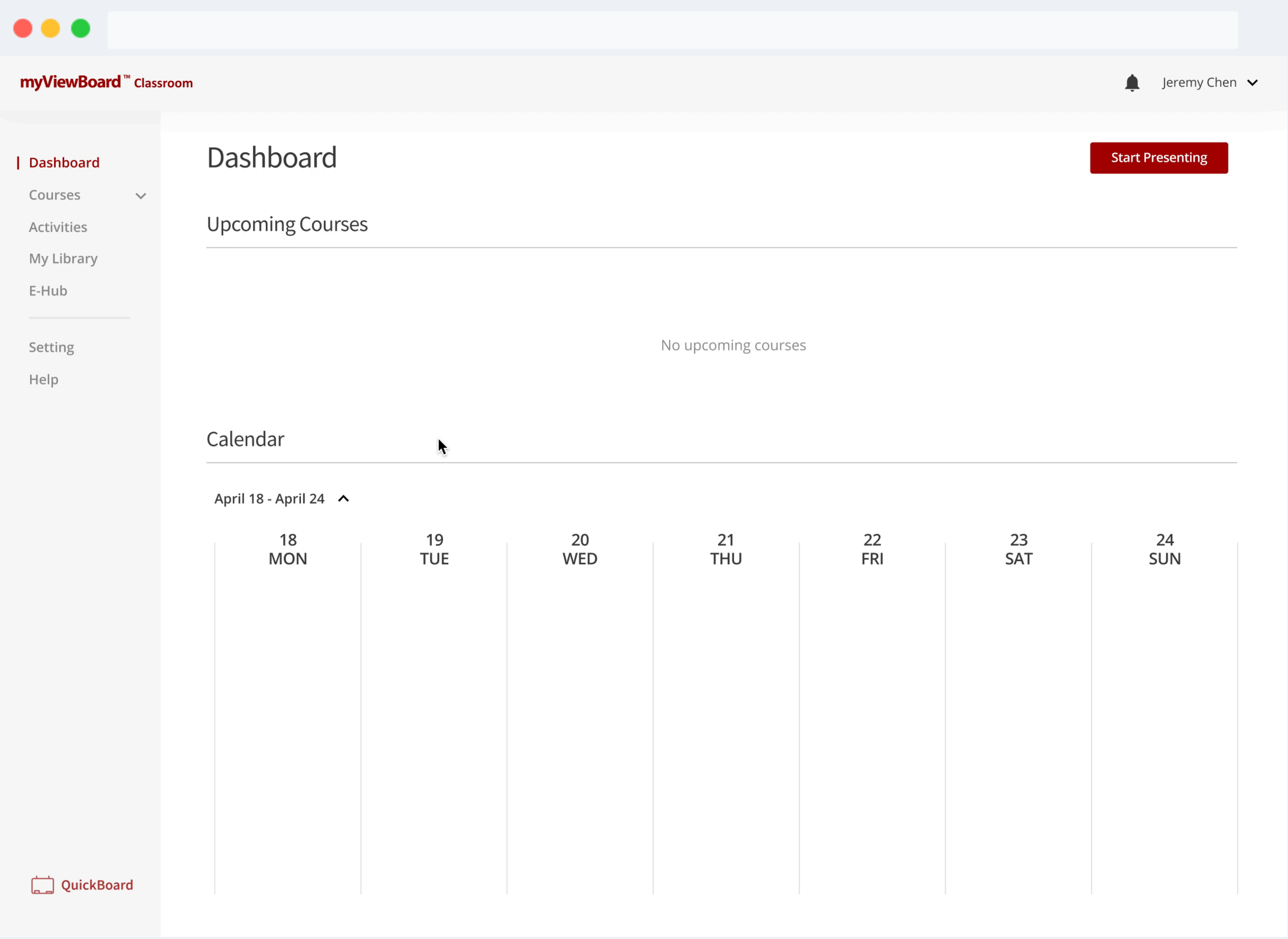
“I like the sharing function that helps me to get feedback from teachers. ”

“I truly appreciate the tool included a curated library which I don’t need find addtional resources to prepare my lessons”

Final Delivery

Prototype

Create a course



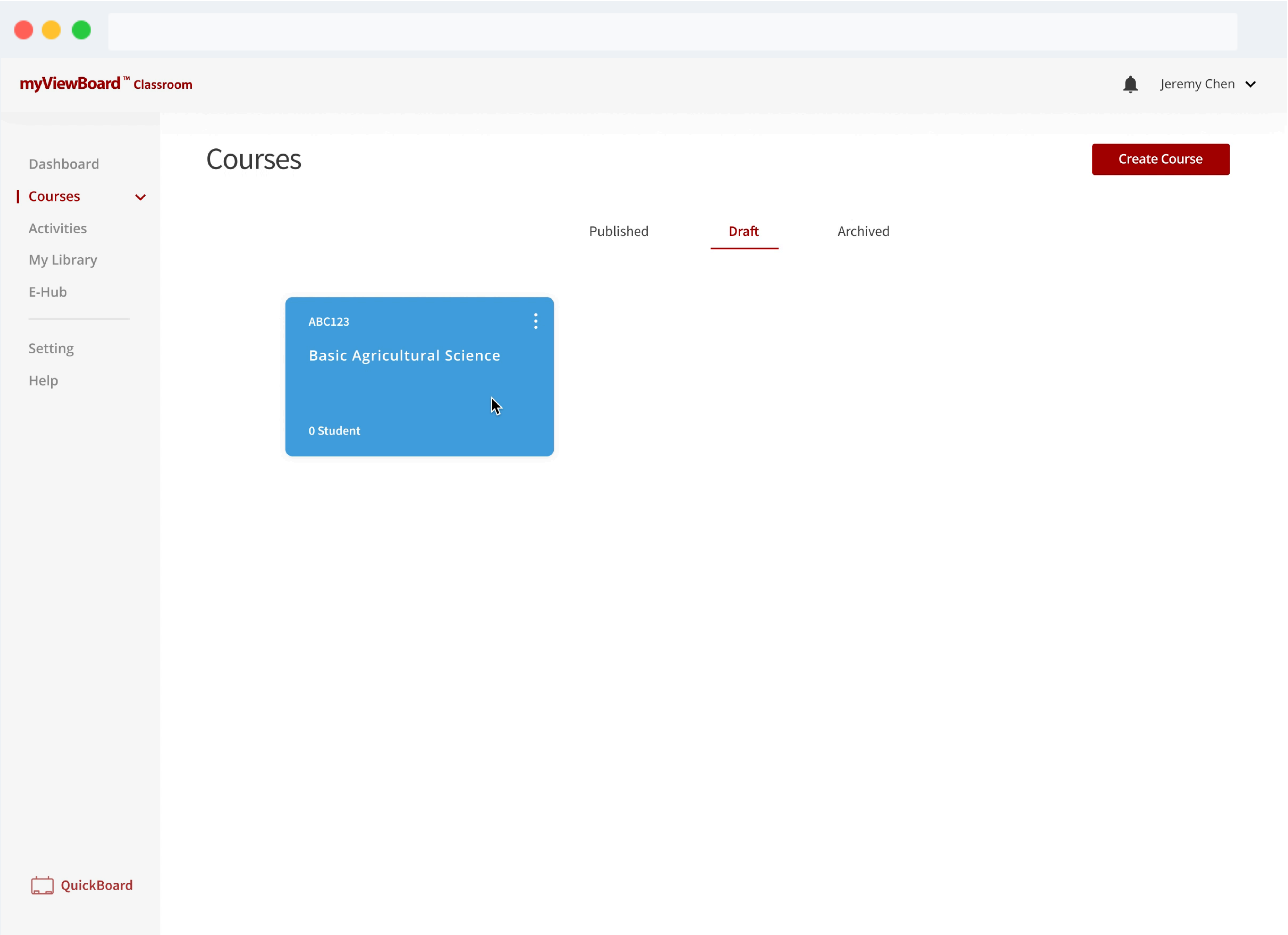
Features:

Create lesson materials and interactive activities to engage students

Final Delivery

Prototype

Create a lesson material



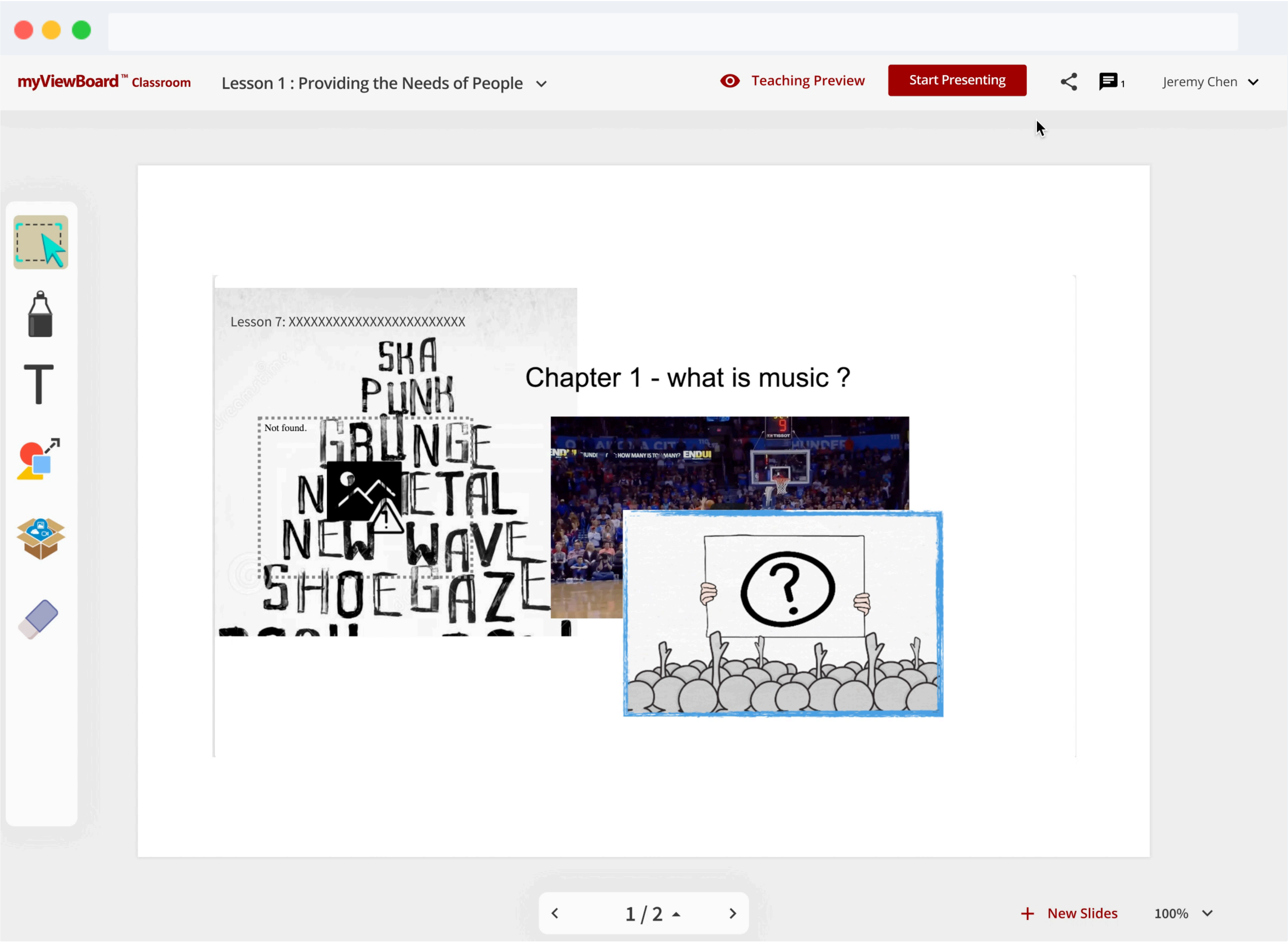
Features:

Create lesson materials and interactive activities to engage students

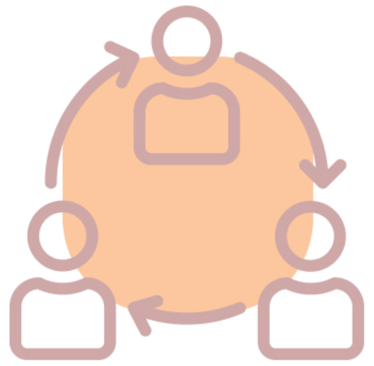
Final Delivery

Prototype

Share a lesson material to get feedback from colleagues



Features:

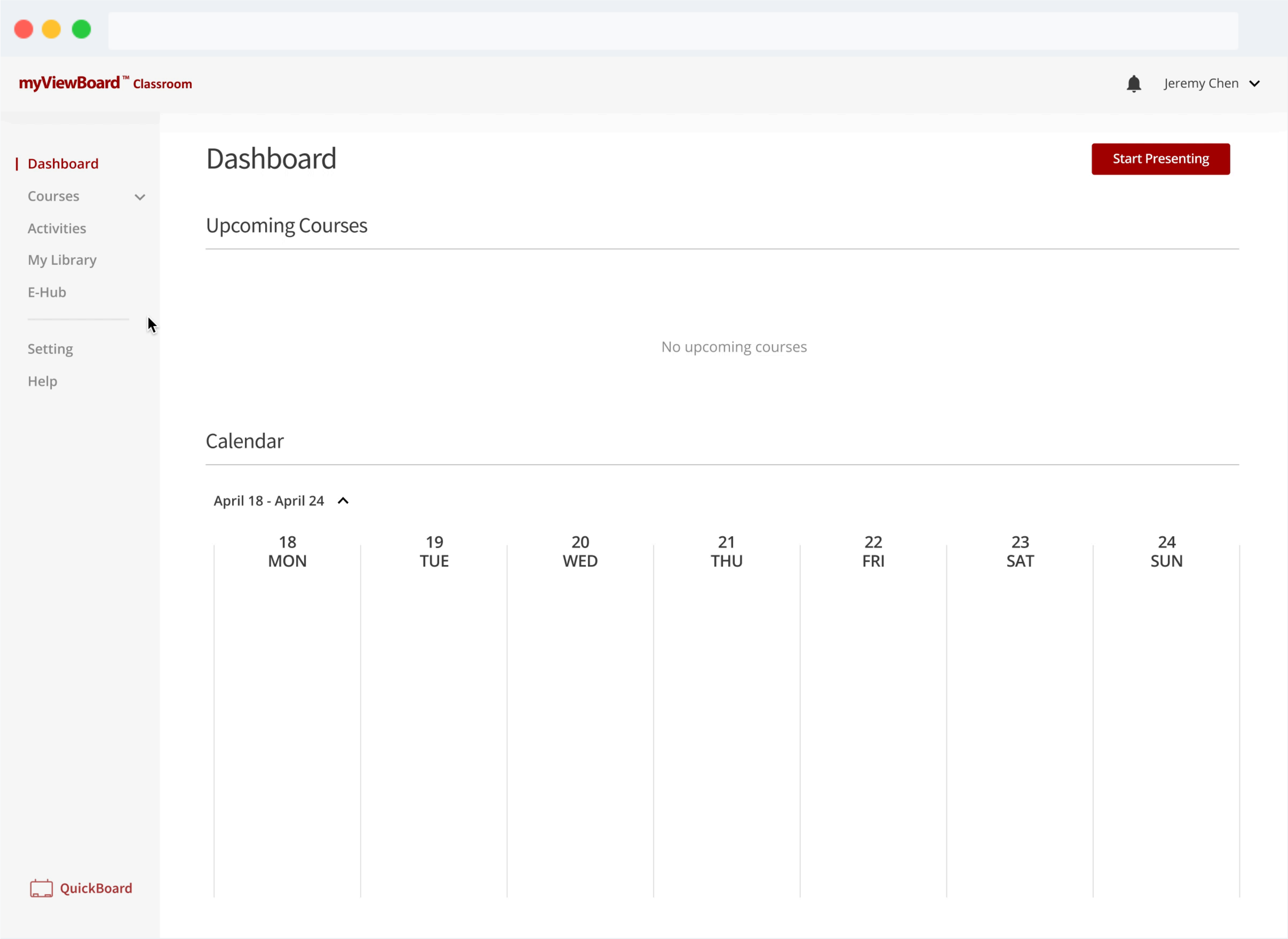


Share lessons with colleagues to get meaningful comments and advices

Final Delivery

Prototype

Prepare a course from E-Hub

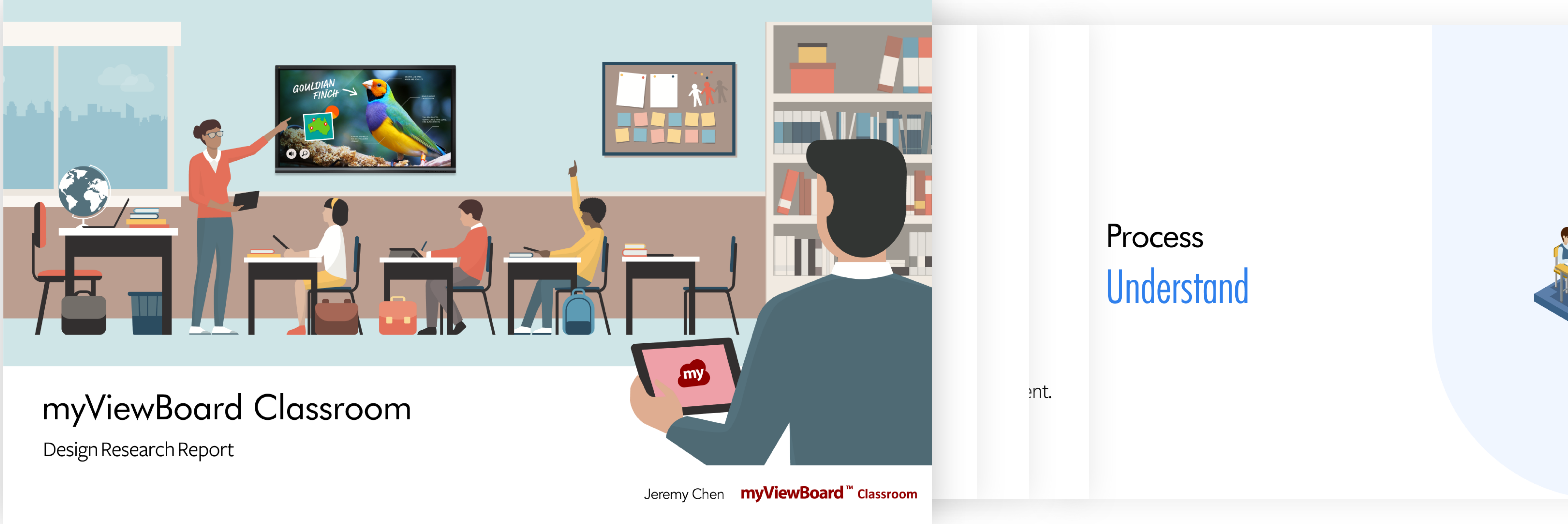


Features:

Share and learn how to create lessons by E-Hub, a curated library for teachers

Final Delivery

Design Research Report



27 pages design research report

What I learned

- Collaborate effectively with cross-functional teams including Product Manager, Engineer, and Sales teams to ship an early-stage product that balances consumer/customer frictions and needs with business goals and technical feasibility.
- Create product concepts through visually-pleasing and usable prototypes and designs with Figma
- Deliver design assets in a format that can easily be consumed and embedded by the engineering team.
- Summarize user research to a design research report

Let’s unleash great design with Passion!

Thank you!

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