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#### IACT 370 | Fall 2020 | Team-19



- **01** Topic of interest & UX problem
- **74** Target users
- 18 How might we...
- **09** Personas
- 12 Opportunity map
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- 15 GamePlan
- **18** Interaction model
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Parents' roles in online education

Due to the pandemic, **parents** have unexpectedly had to take on a **teacher role** at home and **struggle** to **balance** this new role with their busy lifestyle.

# How Teachers Accomplish Core Tasks

#### Grade

- Skyward
- Similar apps

#### Instruct

- Seesaw
- Google Classroom
- Similar apps

#### Take Attendance

- Skyward
- Similar apps

#### Communicate

- Skyward
- Email
- Seesaw
- Google Classroom

# 4+ Applications and countless extensions

including Skyward, Seesaw, Google Classroom, Zoom, email, and more!

(our goal is to access everything from one platform)

# **Primary Demographic**

PreK – 5th grade teachers and students

**Secondary Demographic** 

PreK – 5th grade parents

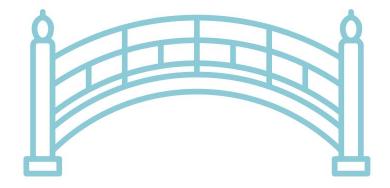
#### Rationale for demographic

"I respect teachers for what they do and want to support them, but I can't do their job."

- Parent during user interview

## **Teacher**

- Grade
- Take attendance
- Communicate
- Instruct

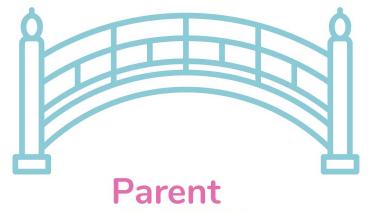


## **Student**

- Learn concepts
- Communicate

## **Teacher**

- Grade
- Take attendance
- Communicate
- Instruct



- Track student progress
- See lessons
- Motivate students
- Assist with technology and lessons

### Student

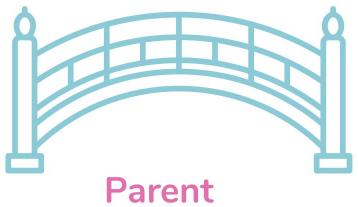
- Learn concepts
- Communicate

"[Parents] Must be able to bridge what the teacher wants and what the student is doing."

- Teacher during card sorting

### **Teacher**

- Grade
- Take attendance
- Communicate
- Instruct



#### - Track student progress

- See lessons
- Motivate students
- Assist with technology and lessons

### Student

- Learn concepts
- Communicate

14 Interviews

5 HMW Categories 700+
DataPoints

- Parents don't want to replace teachers
- Parents want to better understand what their kids are doing
- Kids need correct tools to support self-sufficiency
- Efficiency for teacher = efficiency for parent and student
- Parents & teachers use multiple platforms to communicate

...create a system to balance the **busy lifestyle of parents** and the **educational needs of their children**?

...better facilitate connection between parents and teachers?

...maintain a **flexible** and **open** educational environment that is easily adaptable?

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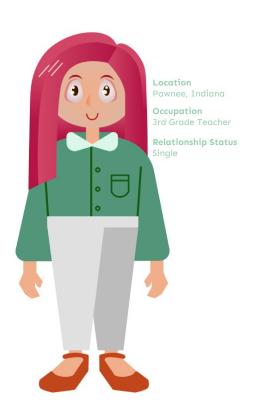
...maintain a flexible and open educational environment that is easily adaptable?

...create a system to balance the **busy lifestyle of parents** and the **educational needs of their children**?

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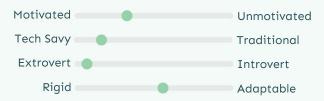
...maintain a flexible and open educational environment that is easily adaptable?

## Miss Katie, 32



#### Bio:

Katie is a third grade language teacher from Indiana. Since quarentine started she has struggled to manage her classroom and keep her students engaged. With the move to online, Katie found it difficult to continue the fun collaborative activities that she had her class enjoy in person, and she misses the individual attention she was able to give each of her students. She wants to foster better communication with the parents of her students, and hopes that she can get them more engaged in their childrens' classroom.



#### Goals:

- To better communicate with her students' parents
- To give each student more individual attention
- To make her online classroom more engaging

#### Likes:

- Reading
- Travelling
- Marvel Comics

#### Dislikes:

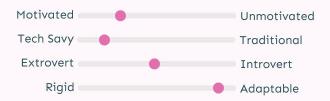
- Google Suite
- Interruptions
- TikTok

## Jodi Lynn Parker, 34



#### Bio:

Jodi lives with her husband and two children, but rarely has time to spend with them during the day due to her busy schedule as a realtor. Since quarantine began she has struggled to find a schedule that allows her to manage her son's education and stay productive in her job. She tries to stay involved by checking in with teachers and monitoring her childs learning through notifications from the school, but Jodi finds the constant notifications and lack of direct communication from teachers to be burdensome. She hopes that a balanced schedule and better communication can help her play a more prominent role in her son's education.



#### Goals:

- Balance work and child's education
- Streamline communication with son's teacher
- Use less screen time with her daughter & son

#### Likes:

- Moscato
- Home projects
- Board games with kids

#### Dislikes:

- Being sedentary
- Talking over the T.V.
- Her colleagues

# Faith Parker, 8



#### Bio:

Faith lives with her parents and sibling in Indiana. She dislikes online learning because she doesn't get to see her friends as often and it doesn't have as many fun activities as when school was in session. She already disliked homework before quarantine, and being in online class has made her hate it even more. Faith wants to be able to socialize with her friends more, and she wants school and learning to be fun again.



#### Goals:

- Have more fun learning
- Make more friends
- Learn Spanish

#### Likes:

- Strawberry Milk
- Reading
- Board games with parents

#### Dislikes:

- Homework
- Going to bed early
- Math

### 12 Opportunity map

#### Collaborative













## Kahoot!



**Traditional** 









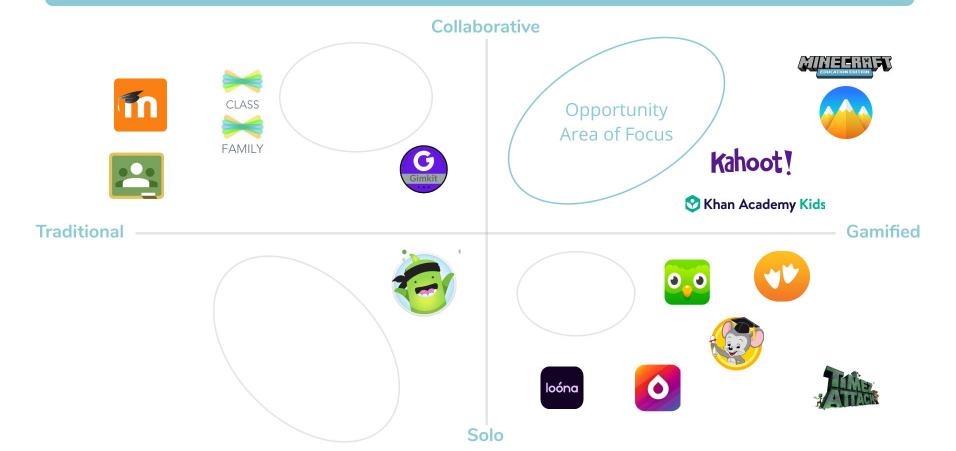








### 12 Opportunity map



## 13 Competitor analysis

Yes Somewhat	Moodle	Seesaw	Khan Academy Kids	Kahoot!	Classcraft	<u>्राधिवसम्ब</u>	AINE	Duolingo	Google Classroom
Student to Student Collaboration									
Parental Involvement									
Student to Teacher Interaction									
Gamification									

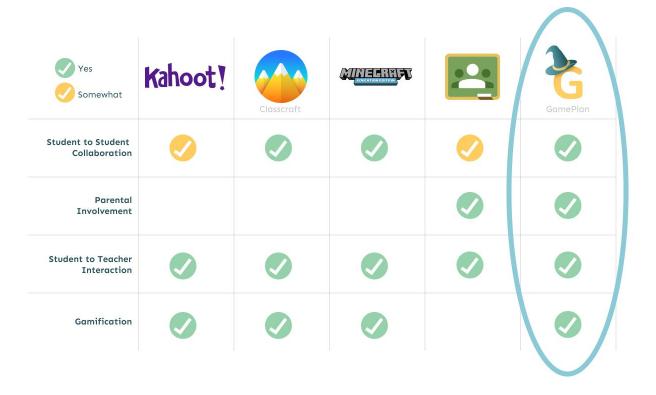
### 13 Competitor analysis

#### Main Takeaways

- Few applications create true collaborative learning environments
- Communication between parents, teachers, and students is not always a priority
- Apps with an administrative focus such seldom introduce gamification

Yes Somewhat	Moodle	Seesaw	Khan Academy Kids	Kahoot!	Classcraft	THE CHARLES THE CONTROL OF THE CONTR	A	O_O Duolingo	Google Classroom
Student to Student Collaboration									
Parental Involvement									
Student to Teacher Interaction									
Gamification									

### 14 Value proposition





GamePlan is an online learning envronment that streamlines teacher tasks and engages children through gamified learning, thus making a parent's role in their child's education simpler.

# 1. Universal Platform

## 1. Universal Platform

## 2. Gamification

1. Universal Platform

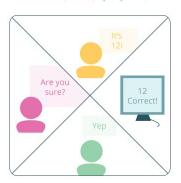
2. Gamification

3. Contextual Messaging

### 17 Storyboard



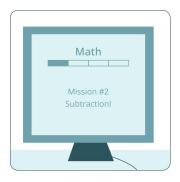
Faith's school has started using GamePlan so her mom, Jodi Lynn is helping her get set up



Faith and her classmates work together on the learning game



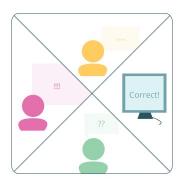
Faith's teacher, Miss Katie, has a new assigment for her



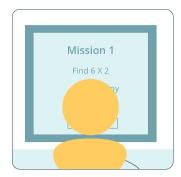
Faith and her classmates complete the game



Faith is placed in a team with two other students



They begin the next level

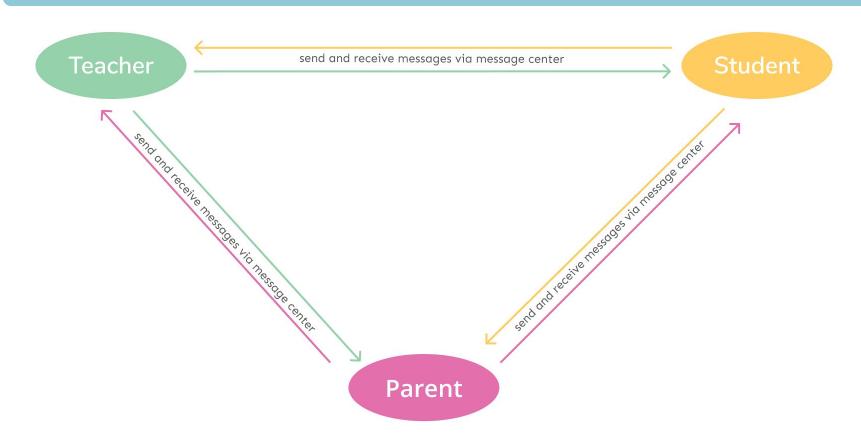


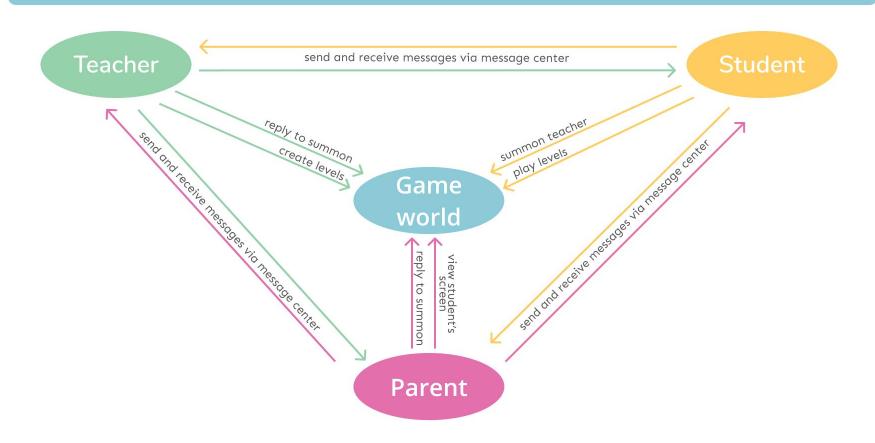
Faith begins the game



With the help of her classmates Faith completes the assignment

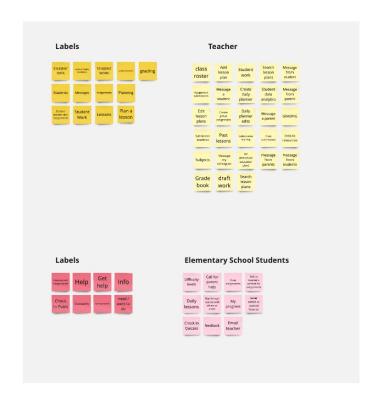
18

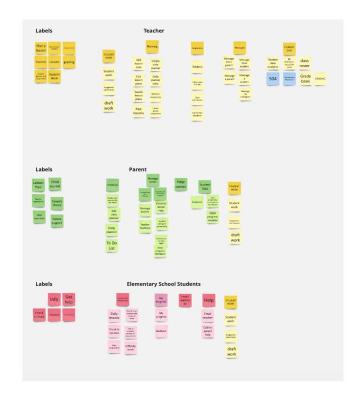




# 5 participants Open Card Sorting

### **Open card sorting**

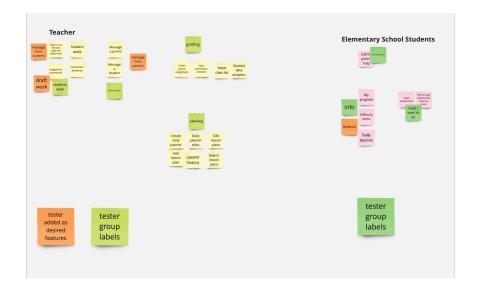


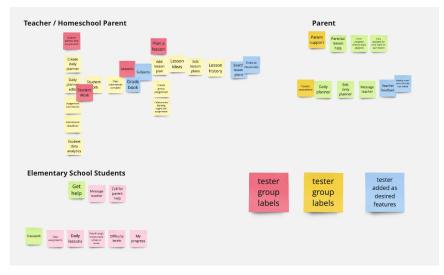


# 5 participants Open Card Sorting



4 participants Closed Card Sorting





## 5 participants Open Card Sorting

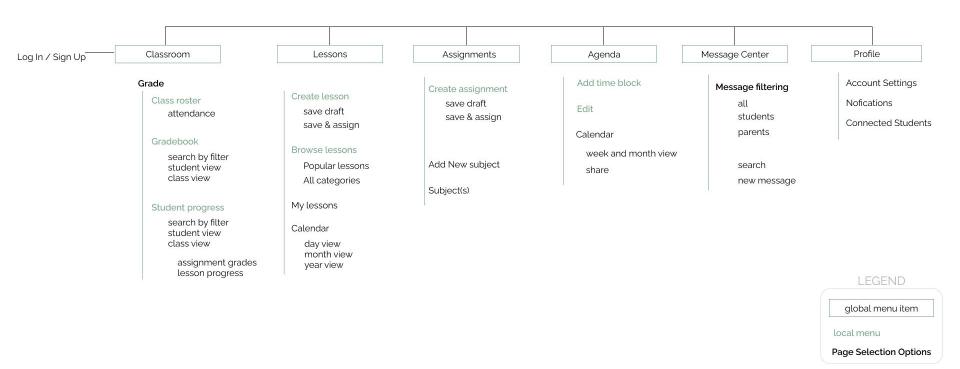


# 4 participants Closed Card Sorting

#### Main Takeaways

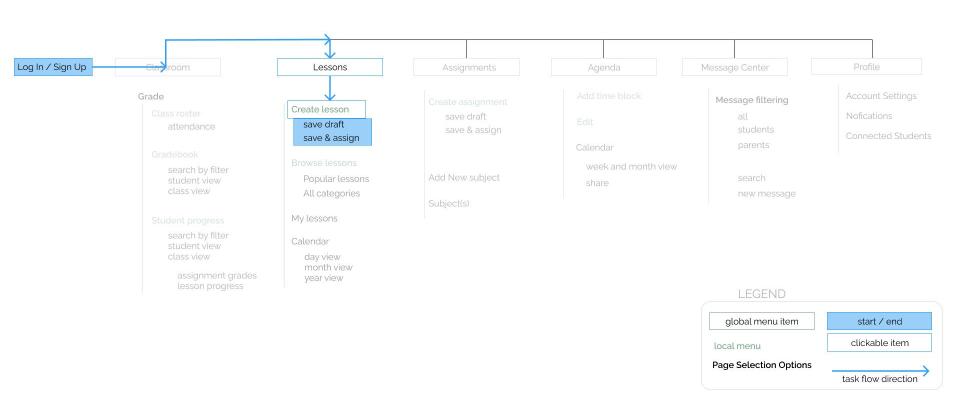
- Message Center, Lessons, and other labels must be consistent across teacher, parent, and student platforms
- Global navigation must allow direct access to users' core tasks of learning or helping students learn

#### 20 Teacher lo-fi blueprint

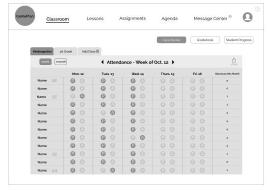


#### 21 Teacher lo-fi prototype - task flow

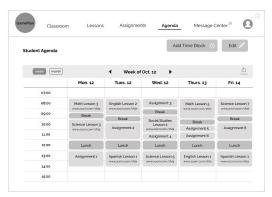
#### Representative Task = Create a lesson



#### 22 Teacher lo-fi prototype - wireframe



Classroom



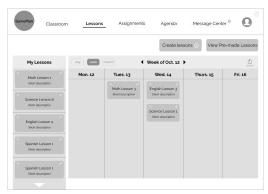
Classroom Lessons Assignments Agenda Message Center 

Create assignment ○ New subject ○

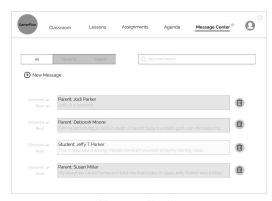
Subject Name ▼ Subject Name ▼

Upcoming Assignment Lesson Name Summary

Assignments



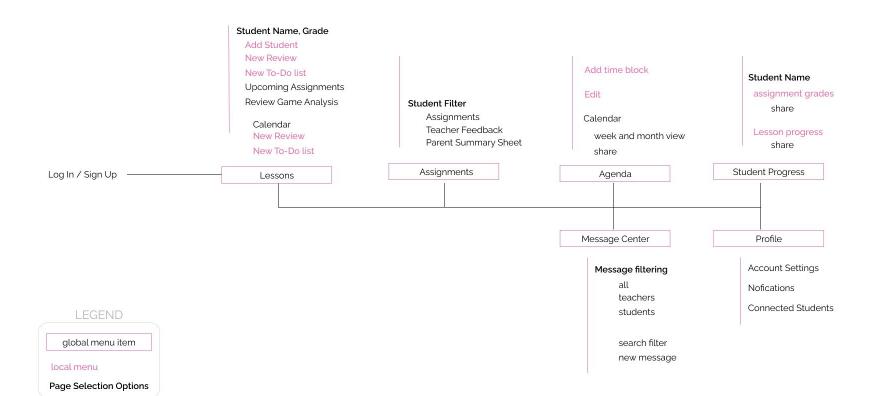
Lessons



Message Center

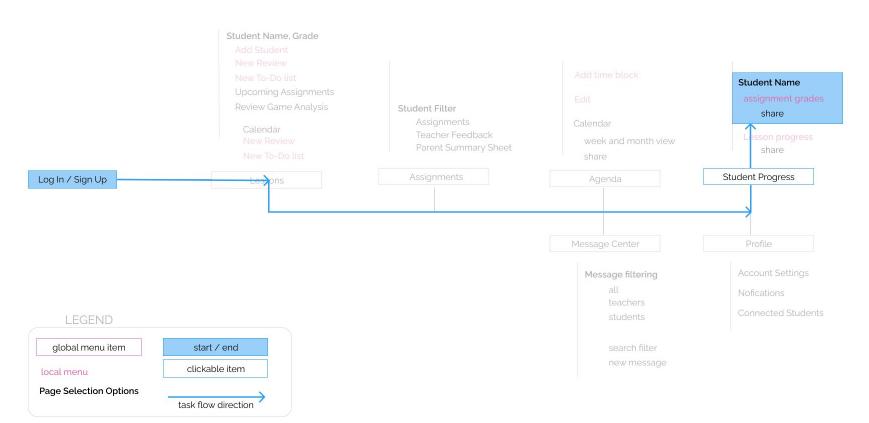
Agenda

#### 23 | Parent lo-fi prototype - blueprint

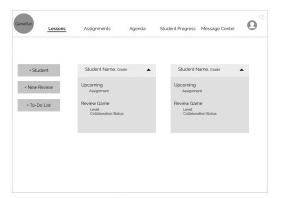


## 24 Parent lo-fi prototype - task flow

#### Representative Task = Check on student progress



#### 25 | Parent lo-fi prototype - wireframe



Lessons



Student Agenda

Student Progress Message Center

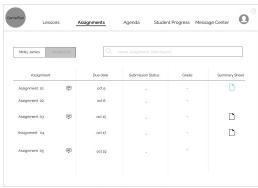
Student Agenda

Add Time Block © Edit /

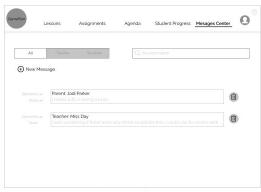
Week of Oct. 12 | Wed. 2 Thurs. 13 Fri. 14

O750 | Mah. Leson 3 |

Agenda

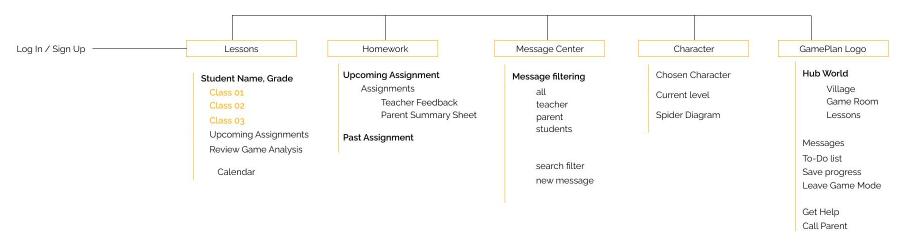


Assignments



Student Progress Message Center

#### 26 Student lo-fi prototype - blueprint



LEGEND

global menu item

local menu

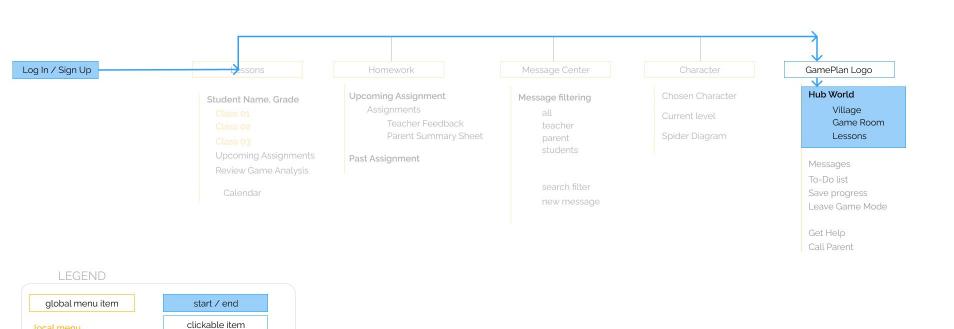
Page Selection Options

## 27 Student lo-fi prototype - task flow

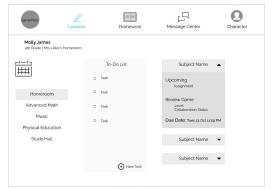
#### Representative Task = Complete assignment

task flow direction

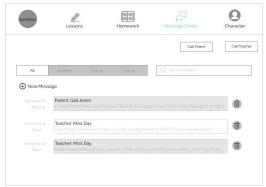
Page Selection Options



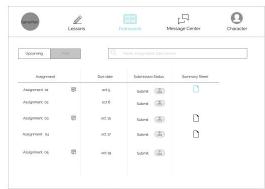
## 28 Student lo-fi porototype - wireframe



Lessons



Message Center

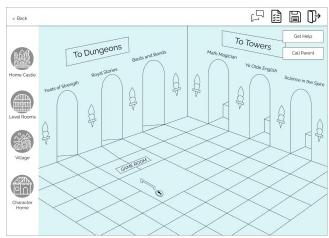


Homework

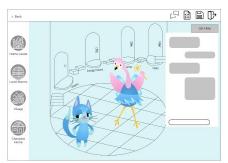


Character

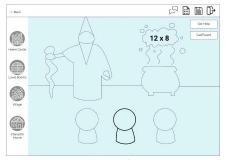
#### 29 Student lo-fi prototype - wireframe



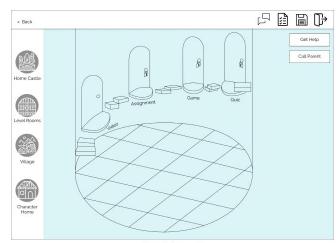
Hub World



Calling for Help

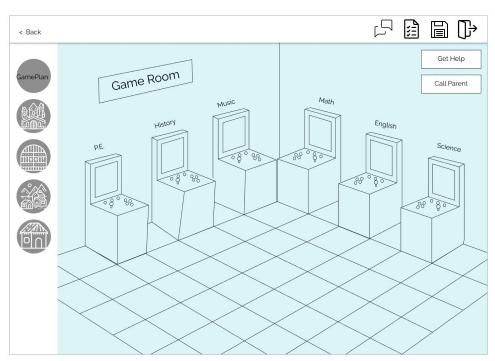


Game Play

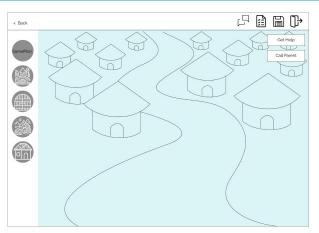


Level Rooms

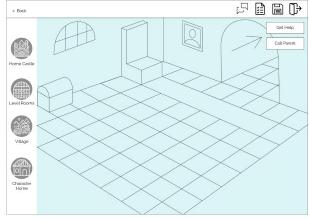
## 30 Student lo-fi prototype - wireframe



Game Room



Village



Player House



Redundant Calendars / Agendas



**Poor Connection Between Parent** and Teacher Agendas



#### 32 System usability scale questionnaire

I think that I would like to use this system frequently.

I found the system unnecessarily complex.

I thought the system was easy to use.

I think that I would need the support of a technical person to be able to use this system

#### I found the various functions in this system were well integrated.

I thought there was too much inconsistency in this system.

#### I would imagine that most people would learn to use this system very quickly.

I found the system very cumbersome to use.

I felt very confident using the system.

I needed to learn a lot of things before I could get going with this system.

89.5

## System Usability Scale

Average Score, n=5



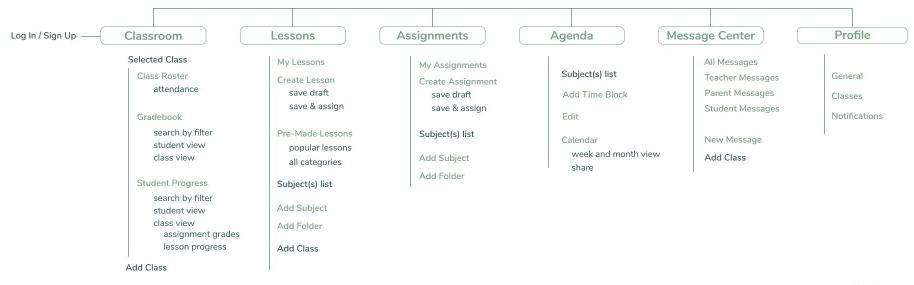
- confirmed enter/exit button for game was intuitive
- students wanted more opprtunity to interact with teacher
- chart to show progression was confusing



# GamePlan

**Finalized Concept** 

#### 35 Teacher blueprint



LEGEND

Global Menu Item

Local Menu

page selection options

#### 36 Teacher taskflow- create a lesson



Start / End

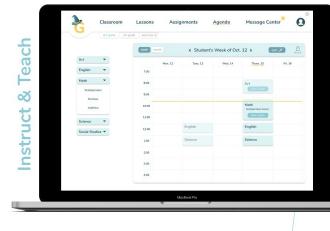
Clickable menu item

Task flow direction

Global Menu Item

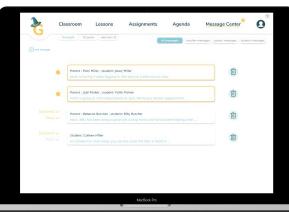
page selection options

Local Menu

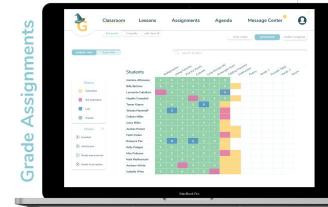


Take Attendance

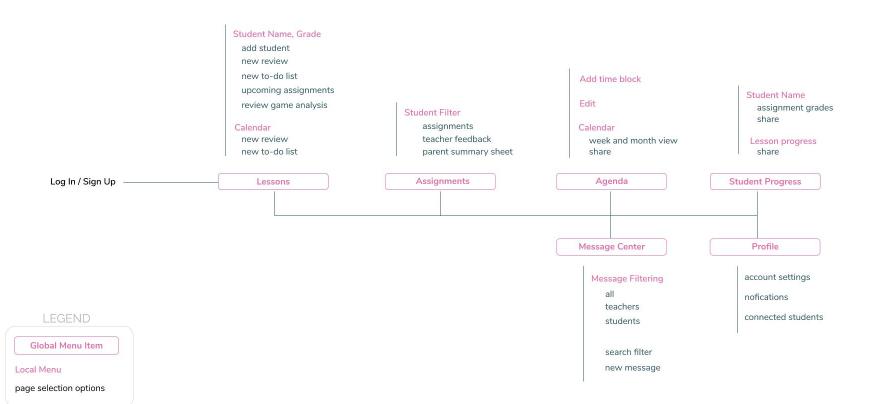
cate



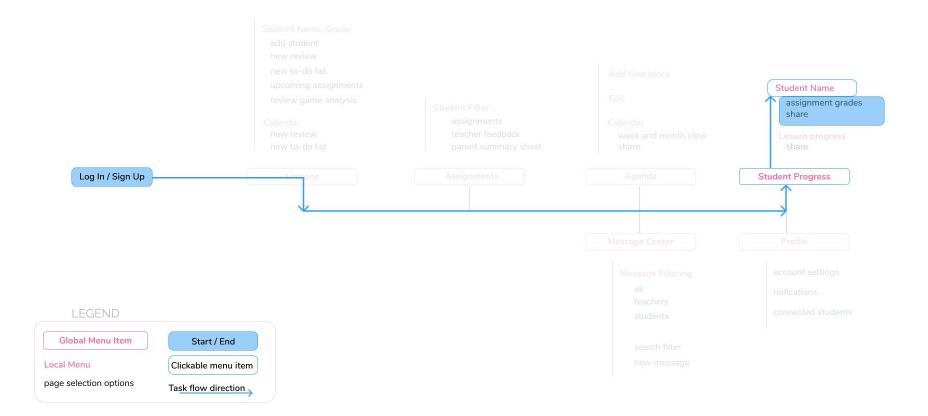
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Jasmine Attenuise 152	用心	8 in	B .0	0.00	(5) (5)	0	0
Billy Butcher	. 0	(B) A	@ A.	(A) (A)	P. A.	. 1	2
Leonardo Cabellero	(B) (A)	@ b	(A)	0.8	E) (8)	.0	0
Haghie Carrelsell	B &	8 4	8 5	23	2.4	- 0	1
Tomer Kapon	(B) (A)	(S) (A)	(€ )A	(E) (A)	F (A)	0	0
Wanda Maximotf	(B) (A)	2.0	(F) (A)	2.3	51.0		1.
Colleen Miller	⊕ (A)	Ø ₩	⊕ (A)	(f) (h)	P (A)	0	0
Incey Miller	(B) (A)	(R) (A)	@ (A)	0.0	(8) (6)	0	0
Andres Panico IIII	(B) A)	⊕ ×	@ A	2.4	P. A.	0	0
Faith Parker	(R) (A)	(B) A)	(A)	(B) (A)	EL (A)	0	0
Peter Parker	@ (d)	8 4	8.4	0.0	23	.0	0
Kelly Pobges	(B) (A)		. 0	(e) (b)	P 6	2	2
Max Polisero III	(A)	(B) A	(a)	(E) (A)	51.6	0	0.
Mails Rieffersstahl	(F) A)	(F)	@ A	(A) (A)	P. A	0	0
Andrew White	(A)	(B) (A)	(A)	6.6	El (A)	0	10
Isabella White	85	9 .	(B) (b)		26	.0	0

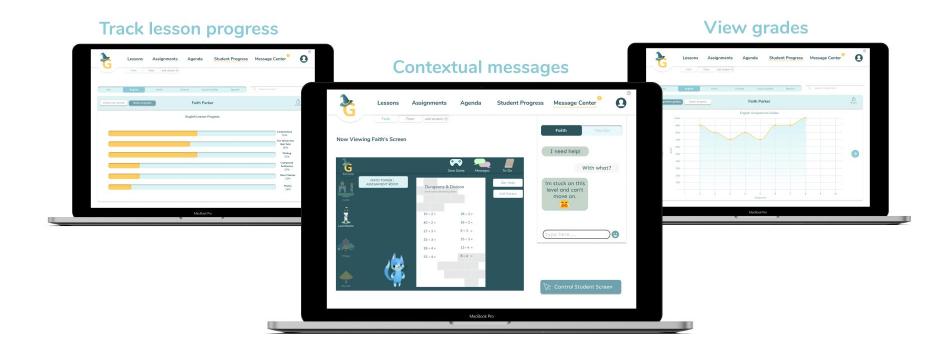


#### 38 Parent blueprint

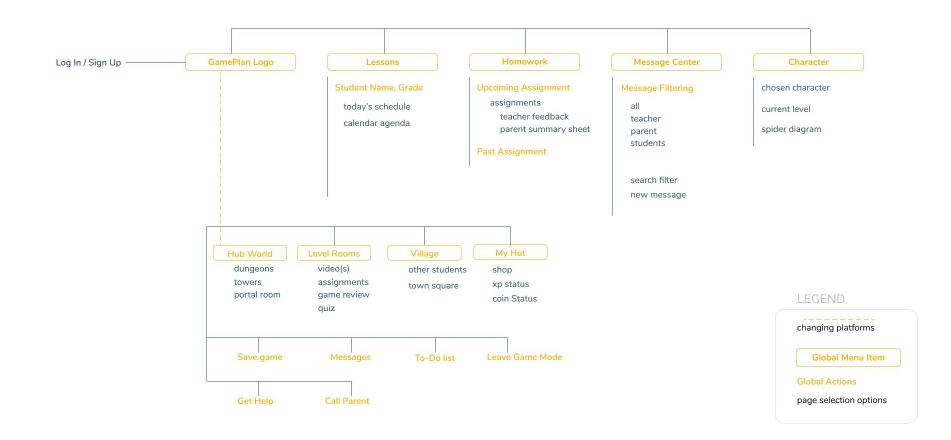


#### 39 | Parent taskflow- monitor student progress

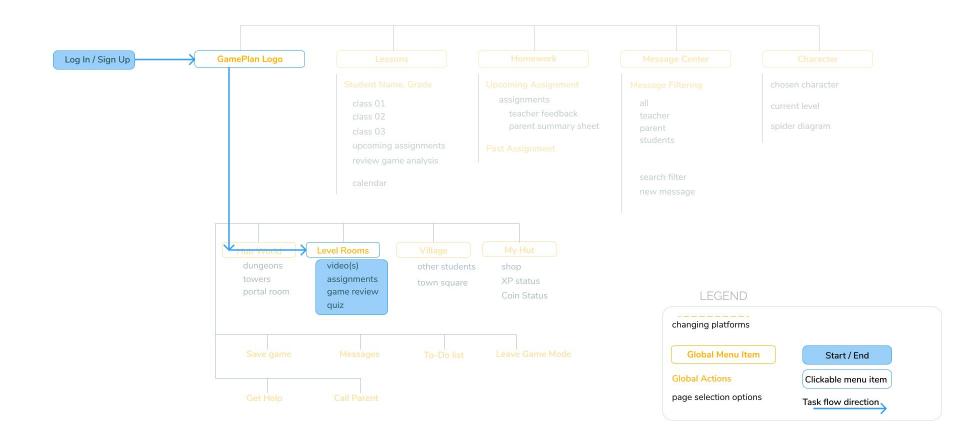




#### 41 Student blueprint



#### 42 | Student taskflow- complete an assignment



Level rooms Hub world



## **Educational games Student homes Character & progress** Message Center Homework 3rd Grade | Miss Katie's Homeroom Game XP 500,000 Game Coins My Lesson Progress Character Outfits MacBook Pro

#### How might we improve upon the social development and structure of the in person education experience through online learning?

- Built to balance a busy lifestyle
- Fosters connnection between students, teachers, and parents
- Adaptable, gamified learning platform
- Univeriversal online classroom

# Application for the future

- Personlized learning
- Communication with parent and teacher
- Parents more involved
- Makes learning fun

# Thank you!

