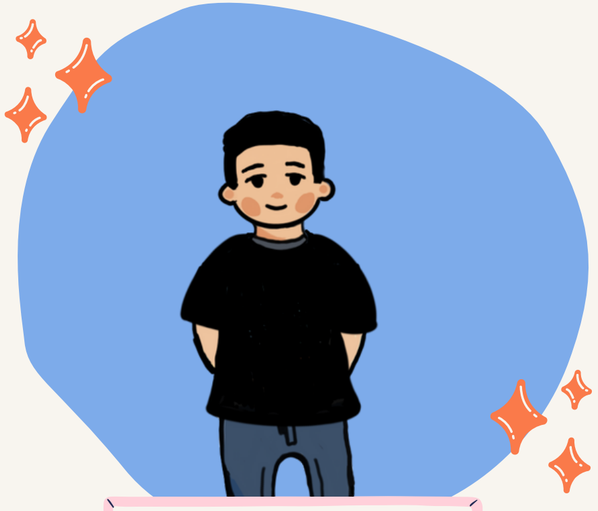
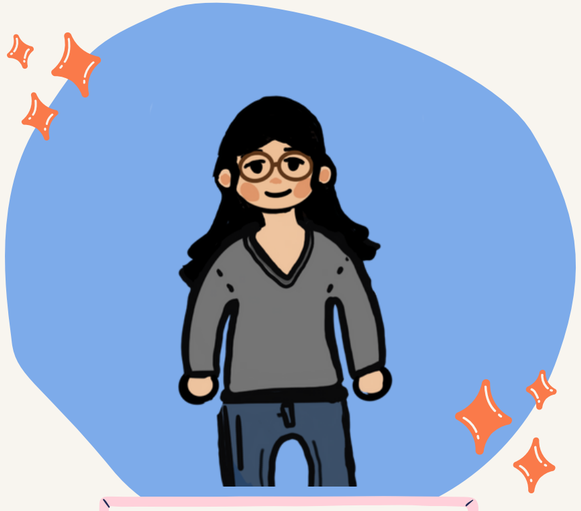
Needfinding in the realm of Hybrid Collaboration

Michael, Tran, Jasper & Zoha

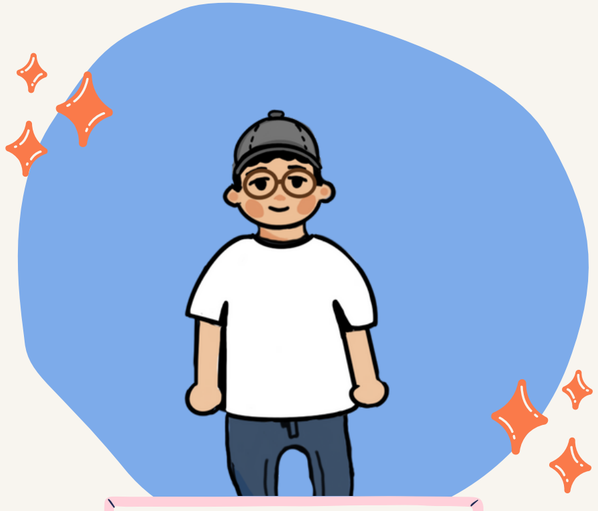
Meet Our Team



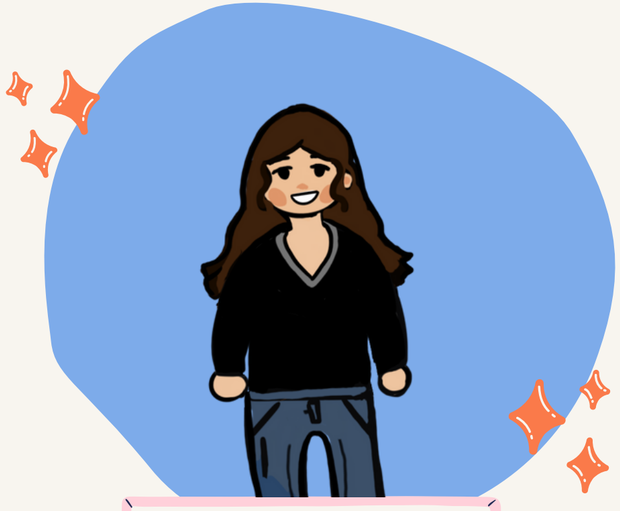
Michael
Engineer



Tran
UX Researcher



Jasper
Engineer



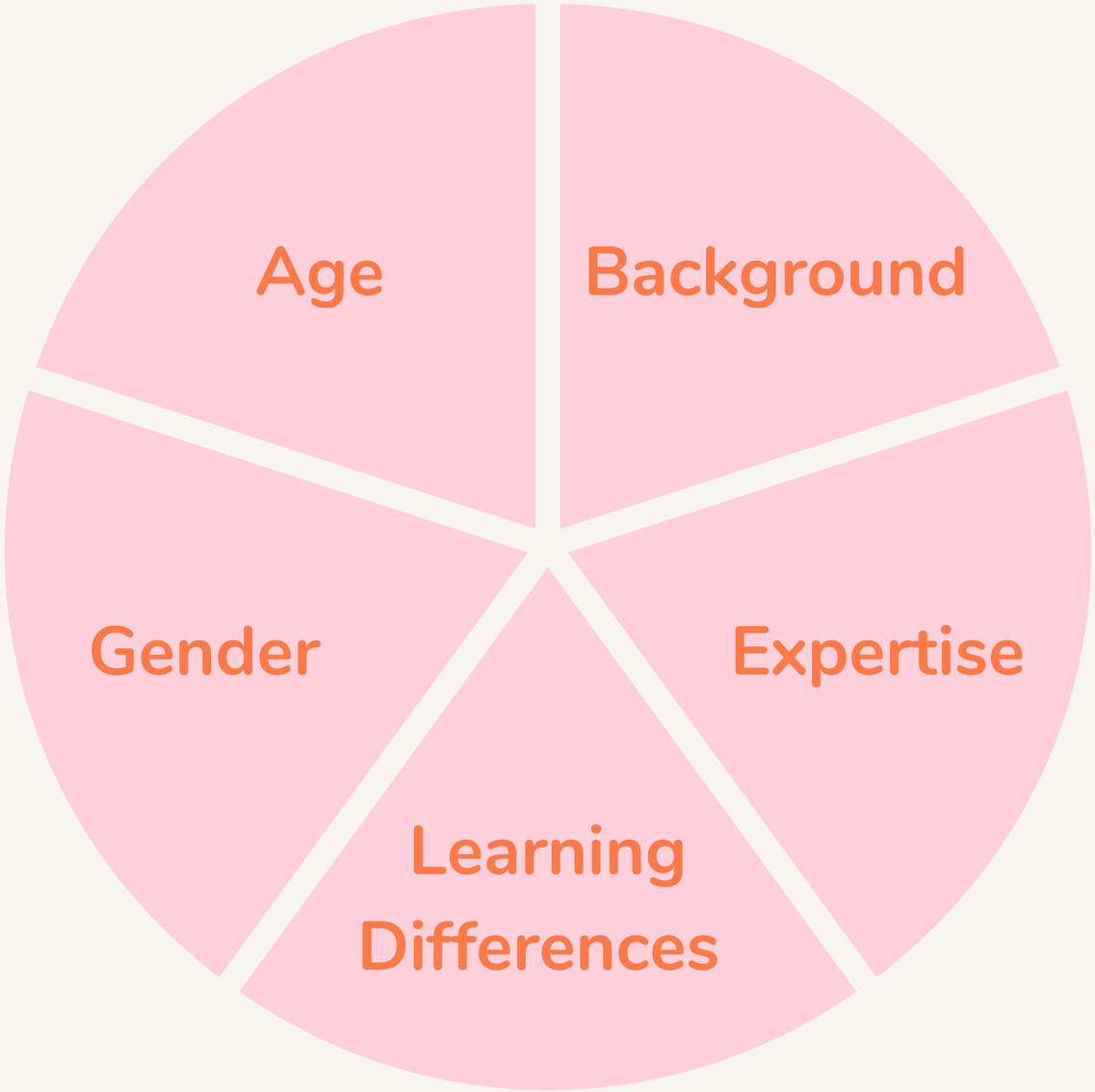
Zoha
UX Designer

TOPICS FOR EXPLORATION

HYBRID COLLABORATION IN LEARNING ENVIRONMENTS

- COMMUNITY
- LEARNING NEEDS
- ACCOMODATIONS

PARTICIPANT SELECTION



WE TALKED TO 4 INDIVIDUALS

Gisselle

Employee at a pharmaceutical company, Hard of hearing individual

Parminder

Student at UNR, CS Major

Tonya

Part time student at Stanford, Mother of a child with learning disabilities

Rohan

Co-founder & sales/product chief at Nooks

INCLUDING 2 EXTREME USERS

Gisselle

Employee at a pharmaceutical company, Hard of hearing individual

Parminder

Student at UNR, CS Major

Tonya

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Rohan

Co-founder & sales/product chief at Nooks

AND 1 EXPERT IN THIS AREA

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Parminder

Student at UNR, CS Major

Tonya

Part time student at Stanford, Mother of a child with learning disabilities

Rohan

Co-founder & sales/product chief at Nooks

"TEACHERS DON'T WANT TO GIVE THE EXTRA TIME OR IT JUST, IT'S, IT'S KIND OF EXTRA MENTAL BURDEN FOR THEM TO KEEP TRACK OF, OH, WHO HAS AN ACCOMMODATION?"

-Tonya

(Mom of a child with learning disabilities)

" I SHOULDN'T HAVE TO PROVIDE MY OWN TECHNOLOGY. IF I DO, THEN IT SHOULD BE PROVIDED FROM THE DISABILITY OFFICE."

-Gisselle

(Hard of hearing individual)

"A LOT OF MY PROFESSORS HAD A VERY HARD TIME USING ZOOM. IT MADE LEARNING ALMOST IMPOSSIBLE BECAUSE IT WOULD TAKE THEM, MAYBE, LIKE THE FIRST TIME 25 MINUTES TO SET UP ZOOM."

-Parmindar

(Student at UNR)

"THERE WAS THIS KIND OF THIS NEED FOR YOU KNOW, FASTER, MORE INSTANT COMMUNICATION AND THIS KIND OF DESIRE TO FEEL LIKE YOU'RE WITH YOUR TEAMMATES THROUGHOUT THE DAY."

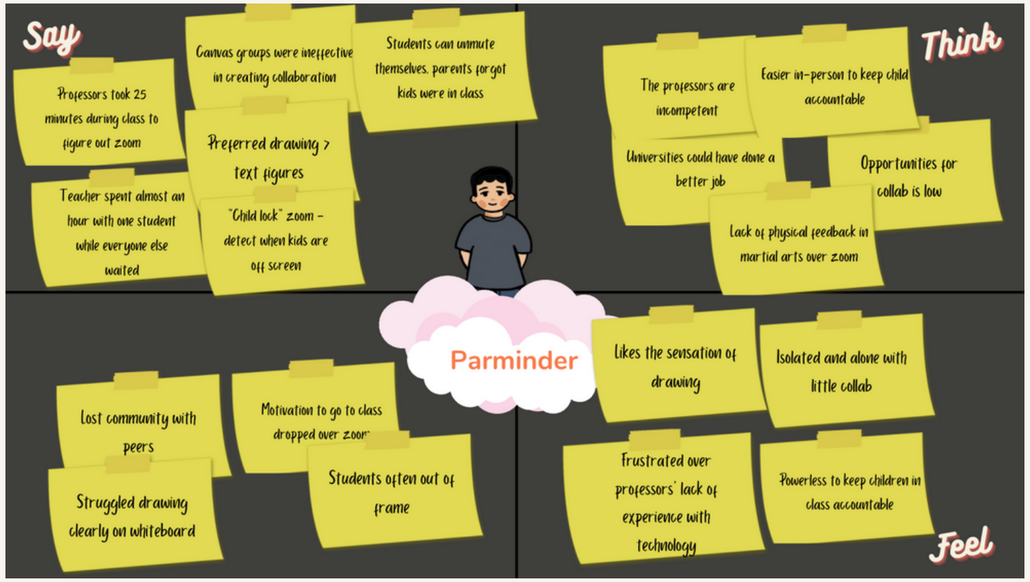
-Rohan

(Cofounder & Product Chief at Nooks)

INITIAL INSIGHTS & POTENTIAL NEED

LACK OF SCREEN REAL ESTATE	LOWER RELIANCE ON OTHER COLLABORATIVE PLATFORMS
LESS RESOURCES FOR STUDENTS WITH LEARNING DIFFERENCES	OFFERING SUPPORT TO STUDENTS FROM A WIDE RANGE OF BACKGROUNDS
LACK OF ATTENTION AND ACCOUNTABILITY FROM STUDENTS	INTERACTIVE BREAK
INSTRUCTOR'S USAGE OF TECHNOLOGY	MAKING THE PROCESS INTUITIVE FOR THE PROFESSORS

EMPATHY MAPS



Gisselle

Say

- Am I talking over my peers/professor?
- Do I see the correct time/date?
- I still had a natural person transcribing for me during the pandemic.
- Tell your class, Zoom has the worst accommodations [said 2x]
- Type questions in Discord without interrupting the professor
- Loved it when pandemic happened as horrible as that sounds
- Did my captionist accurately transcribe important info?
- I didn't get to learn that day
- Disabled people shouldn't g of their way, that's now h accommodation works
- Phone connected to hearing aid (when I'm best at learning)
- Hates having camera on
- Can't read fast, I never liked it
- Doesn't have luxury to just go to class and understand, not only understand concept but what they're saying
- Not that it matters but knowing the speaker gave context

Think

- I don't know when other people are talking on Zoom
- Has to work harder than others
- Escape the attention of other people
- I can learn with other people and technology
- I'm not sure if this info is accurate

Do

- Don't see people just leaving [tests]
- Lost during class
- [Stopped raising hand] too hard too focus, too hard to come up with questions.
- Happily discovered live captioning (even remembered the exact date she found out about that feature)
- Lost community (Not good at calling other people)
- Get answer but not question
- Wasn't easy to take notes

Feel

- Self conscious of others' judgement
- Worried about assignment+accuracy
- Afraid of coming off as rude and inconsiderate
- Stressed by the performance of others
- Confused when there is a lack of context
- Overhwelmed by everything going on
- Frustrated when there are limited accommodations

Say

Disabled people shouldn't go out of their way, that's now how accommodation works

Am I talking over my peers/professor?

Did my captionist accurately transcribe important info?

Think

I shouldn't need to put any more effort than others to learn

Gisselle

Do

Phone connected to hearing aid (when I'm best at learning)

Happily discovered live captioning (even remembered the exact date she found out about that feature)

Feel

Worried about assignment+accuracy

Afraid of coming off as rude and inconsiderate

Say

Disabled people shouldn't go out of their way, that's now how accommodation works

Am I talking over my peers/professor?

Did my captionist accurately transcribe important info?

Think

I shouldn't need to put any more effort than others to learn

Surprise! Something as simple as a deadline can be missed

Gisselle

Worried about assignment+accuracy

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Tension! Talking cues are ineffective

Gisselle

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Contradiction! Learned best with phone but didn't want it

Gisselle

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Gisselle

Surprising! She wasn't made aware of this feature earlier

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Worried about assignment+accuracy

Afraid of coming off as rude and inconsiderate

Tonya

Say

[what was bad] "n the platform, but h the teachers used i

Slides on one monitor and professor on another

Son had best grades in a flipped classroom

Almost all the kids were had their cameras off, you know, weren't paying attention.

We actually had to withdraw [my son] from the class because he was failing.

[The teacher] would put the kids in breakout rooms, but they didn't talk to each other.

[My kids] do not want to go back to remote schooling if they can ever avoid it.

Think

She thinks her children want more attention during online classes

She thinks about how to create a better learning experience for her children's needs.

Found Google Classroom late feature demotivating for her son, causing him stress

She thinks her children might suffer over zoom because of the way the classes are conducted

She thinks how her children can talk to other kids during classes for a more interactive experience.

She thinks her children could benefit from remote learning in a similar way like she is at Stanford.

She thinks remote learning has its advantages as well for her child who needs break

She thinks her children require support from the institution as well as the teachers for them to be successful learners.

Do

Try making remote learning fun for the children so they would want to go back to it and meet their friends

"So she, she really basically didn't didn't do a whole lot in fifth grade because of because of zoom."

Icebreakers facilitated discussion

Help teachers in facilitating discussion and keep students engaged throughout

Send children with prompts before the breakout rooms so they know what to talk about.

One daughter would actually take advantage of the fact that I was in class at the same time to skip her classes, like she was able to, to avoid it.

Feel

She felt frustrated when the teachers did not make accommodations for her son's learning differences

Happy with the quality of remote learning in graduate courses.

She felt like she got more dou when she was remote.

She felt that remote learning was beneficial for the son and provided motivation for him.

She felt like she had to take care of her daughters learning at home and it was a lot of workload for her as a part time student too

She felt she could stay at home and did not have to run to her classes as a mom at Stanford.

She felt that her children could benefit from this learning if given correctly and she hopes that happens for her too.

Tonya

Say

[what was bad] "not the platform, but how the teachers used it"

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Feel

She felt that remote learning was beneficial for the son and provided motivation for him.

She felt like she got more done when she was remote.

She felt like she had to take care of her daughters learning at home and it was a lot of workload for her as a part time student too

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Tonya

Tension! Son's performance dropped because of ineffective tech use

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One daughter would actually take advantage of the fact that I was in class at the same time to skip her classes, like she was able to, to avoid it.

Surprising! She wasn't made aware of this feature earlier

Tonya

Think

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She thinks her children might suffer over zoom because of the way the classes are conducted

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She felt frustrated when the teachers did not make accommodations for her son's learning differences.

Say

Professors took 25 minutes during class to figure out zoom

Canvas groups were ineffective in creating collaboration

Students can unmute themselves, parents forgot kids were in class

Preferred drawing > text figures

Teacher spent almost an hour with one student while everyone else waited

"Child lock" zoom - detect when kids are off screen

Think

The professors are incompetent

Easier in-person to keep child accountable

Universities could have done a better job

Opportunities for collab is low

Lack of physical feedback in martial arts over zoom

Parminder

Lost community with peers

Motivation to go to class dropped over zoom

Struggled drawing clearly on whiteboard

Students often out of frame

Feel

Likes the sensation of drawing

Isolated and alone with little collab

Frustrated over professors' lack of experience with technology

Powerless to keep children in class accountable

Say

Teacher spent almost an hour with one student while everyone else waited

Canvas groups were ineffective in creating collaboration

Kids can't figure out camera angles because they were on their own.

Think

Opportunities for collab is low

Parminder

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Isolated and alone with little collab

Feel

Say

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Kids can't figure out camera angles because they were on their own.

Think

Opportunities for collab is low

Tension! Teachers expressing frustration against students without having the physical authority to do anything

Parminder

Powerless to keep children in class accountable

Lost community with peers

Motivation to go to class dropped over zoom

Frustrated over professors' lack of experience with technology

Isolated and alone with little collab

Feel

Say

Teacher spent almost an hour with one student while everyone else waited

Canvas groups were ineffective in creating collaboration

Kids can't figure out camera angles because they were on their own.

Tension! Digital communities often feel like they don't work and are ineffective

Think

The professors are incompetent

Universities could have done a better job

Opportunities for collab is low

Parminder

Isolated and alone with little collab

Lost community with peers

Motivation to go to class dropped over zoom

Frustrated over professors' lack of experience with technology

Feel

Say

Teacher spent almost an hour with one student while everyone else waited

Canvas groups were ineffective in creating collaboration

Think

The professors are incompetent

Universities could have done a better job

Opportunities for collab is low

Tension! Students are often under the will of the teachers' ability to use technology

Parminder

Isolated and alone with little collab

Lost community with peers

Motivation to go to class dropped over zoom

Frustrated over professors' lack of experience with technology

Feel

Say

It would be interesting to be able to keep your video off while keeping a digital presence.

Ambient learning is a big part of Nooks because it is part of real life, and we have the technology to create it.

Nooks is about natural conversation

Nooks rooms create accountability and intentionality for people who need body-doubling, especially ADHD individuals

Hybrid collaboration is the future

It's hard to form fully-fledged relationships on Nooks but you can at least use Nooks to maintain it.

Nooks can be an extremely social platform, even being a place for celebration

Do

Rohan

Think

Feel that getting the user experience right is a challenge for hybrid collaboration

Physical limitations: Trying to take a call in the same room as someone else, but needing to leave to do so.

Use Nooks to unlock socialization together: celebration, chatting about non-work, natural intermingling

Nooks came to be after talking to people who said they felt lonely

Content with meeting in person several times a month, and the rest digitally

I created rooms in Nooks because a ton of zoom links were clunky / giant zoom is not efficient for office hours

Combining some form of in-person with Nooks is optimal for working

el

Say

Nooks rooms create accountability and intentionality for people who need body-doubling, especially ADHD individuals

It would be interesting to be able to keep your video off while keeping a digital presence.

Think

Feel that getting the user experience right is a challenge for hybrid collaboration

Surprise!
Hybrid collaboration and related tools pose their own unique challenges. eg. What does tiredness in real life look like digitally?

Rohan

Do

Nooks was created to help TAs hold virtual office hours for their students.

Zoom and other platforms have a very specific agenda (meeting, etc.). Nooks was created to have an ambient environment.

Feel

Feels empowered in the use of technology to emulate real-life behaviors

Felt surprised when he realized students were using Nooks for work-related tasks.

Say

Nooks rooms create accountability and intentionality for people who need body-doubling, especially ADHD individuals

It would be interesting to be able to keep your video off while keeping a digital presence.

Think

People use Nooks to unlock socialization together: celebration, chatting about non-work, natural intermingling

Rohan

Surprise!
Hybrid collaboration often imitates real life: this means there's always something left for digital technology to innovate on.

Do

Nooks was created to help TAs hold virtual office hours for their students.

Feel

Felt surprised when he realized students were using Nooks for work-related tasks and non-work-related tasks.

Say

Nooks rooms create accountability and intentionality for people who need body-doubling, especially ADHD individuals

It would be interesting to be able to keep your video off while keeping a digital presence.

Think

Feel that getting the user experience right is a challenge for hybrid collaboration

Rohan

Surprise!
Insights/solutions relating to zoom fatigue + ADHD individuals

Do

Nooks was created to help TAs hold virtual office hours for their students.

Feel

Feels that Nooks/hybrid collaboration tools serve as a temporary substitute for accomodations.

Felt surprised when he realized students were using Nooks for work-related tasks.

SUMMARY

- We found that there were not enough accommodations for students with learning differences during remote learning.
- We witnessed lack of motivation among students while learning online since there weren't many consequences.
- We saw that student's learning while working online depends on the instructor's technical literacy.

NEXT STEPS

Choose a POV from our interviews

Diversify our participant pool

Create "How Might We" Statements

Dive deeper into the problem space and prototype!

APPENDIX

- Interview Notes
- Interview Questionnaire
- Original Empathy Maps

THANK YOU FOR LISTENING TO OUR PRESENTATION AND KEEPING YOUR MICROPHONE ON MUTE! 😊