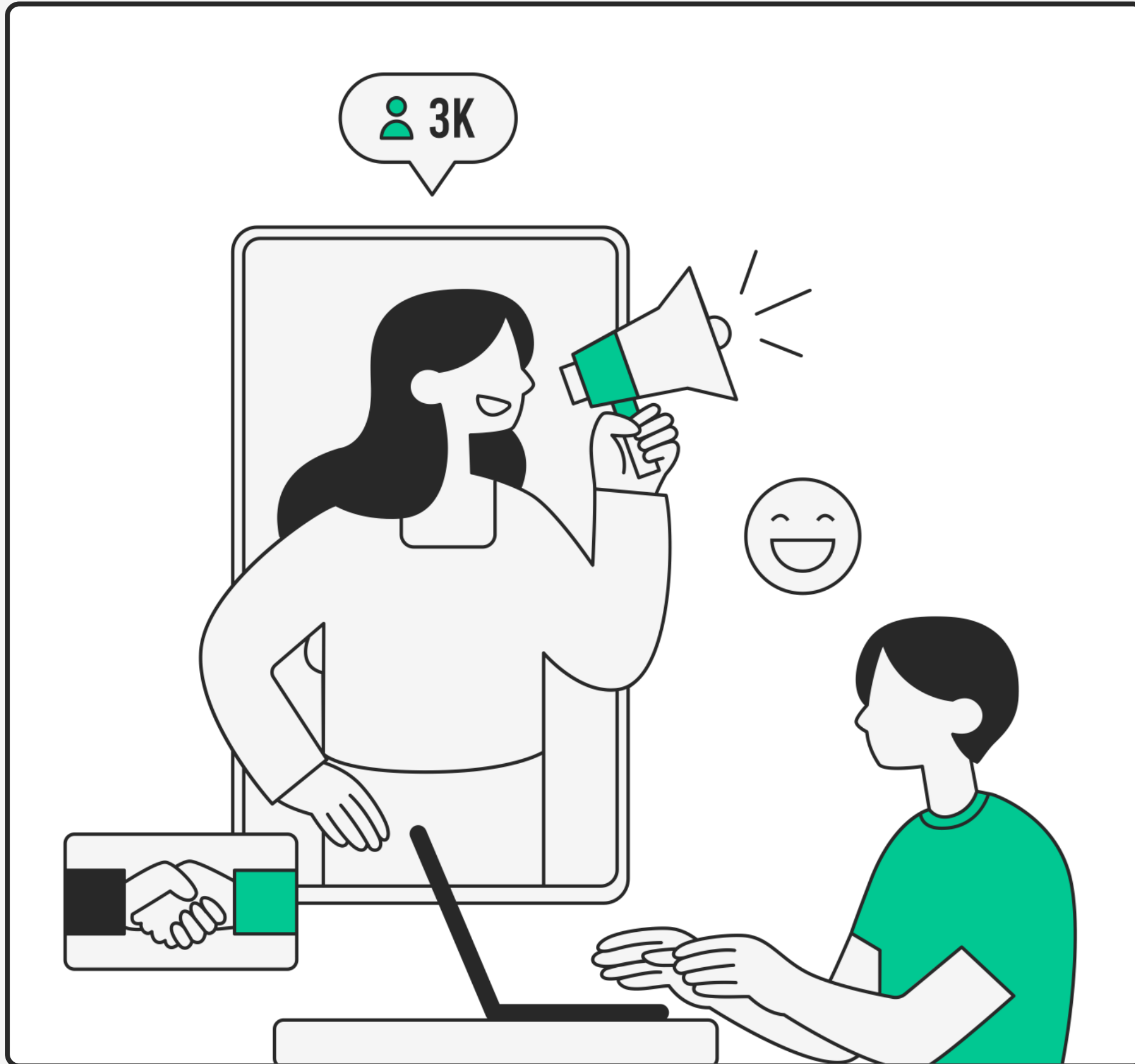




EXPERIENCE PROTOTYPES

Team Name: JAMJ, (Jonah Blaydes-Greenberg, Alex Yansouni,
Meghana Paturu, Jennifer Lew)



CONTENTS

- 01** Where Were We?
- 02** Additional Needfinding
- 03** From HMWs to Solutions
- 04** Our Solutions
- 05** What's Next?

Meet the Team!



Jennifer Lew ('26)
Computer Science (AI)
Palos Verdes, CA



Alex Yansouni ('26)
Computer Science (HCI)
Los Altos, CA



Meghana Paturu ('26)
Computer Science (HCI) &
Economics
Belle Mead, NJ

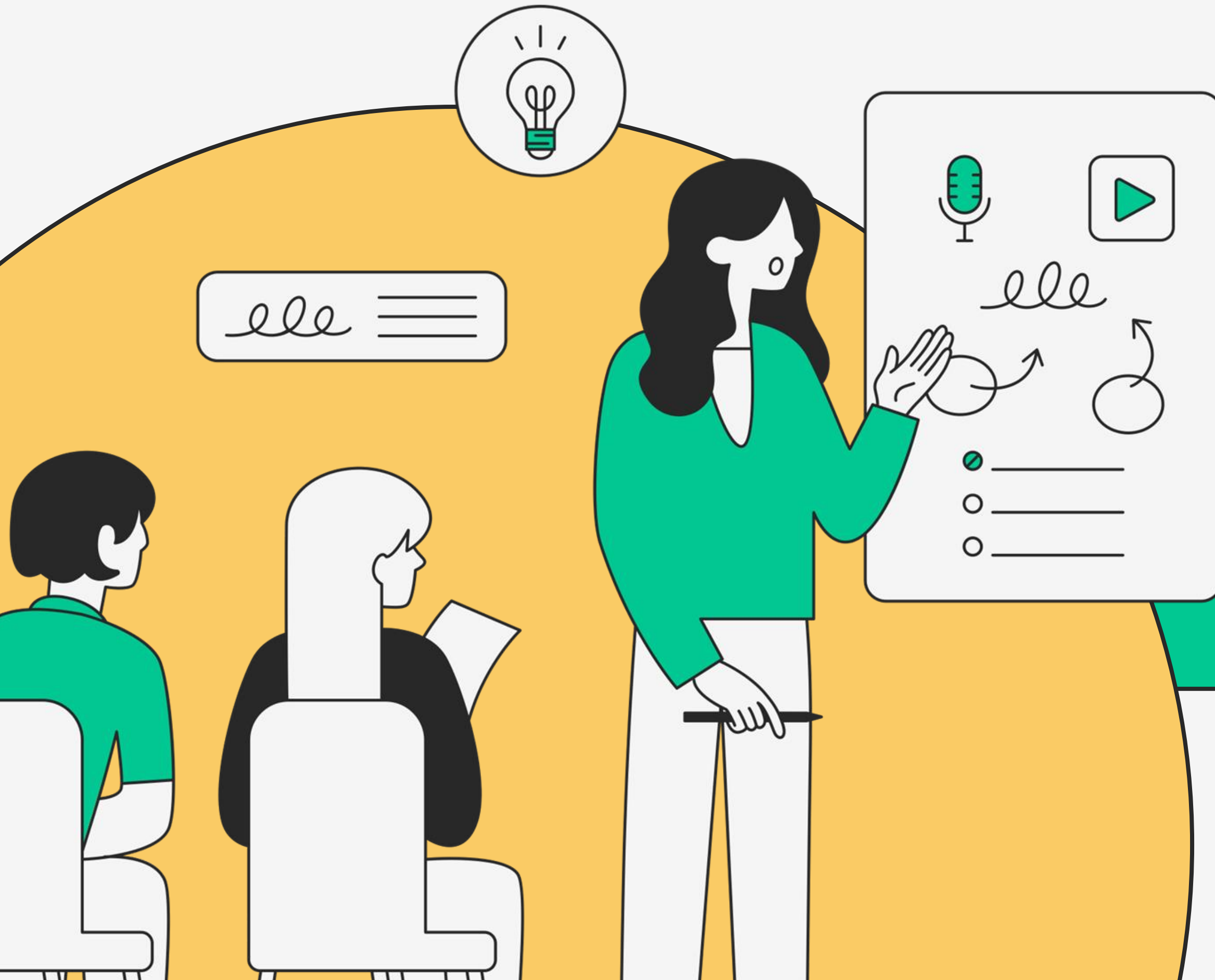


Jonah Blaydes-Greenberg ('26)
Computer Science (HCI) &
Music
Los Altos, CA



01

WHERE WERE WE?

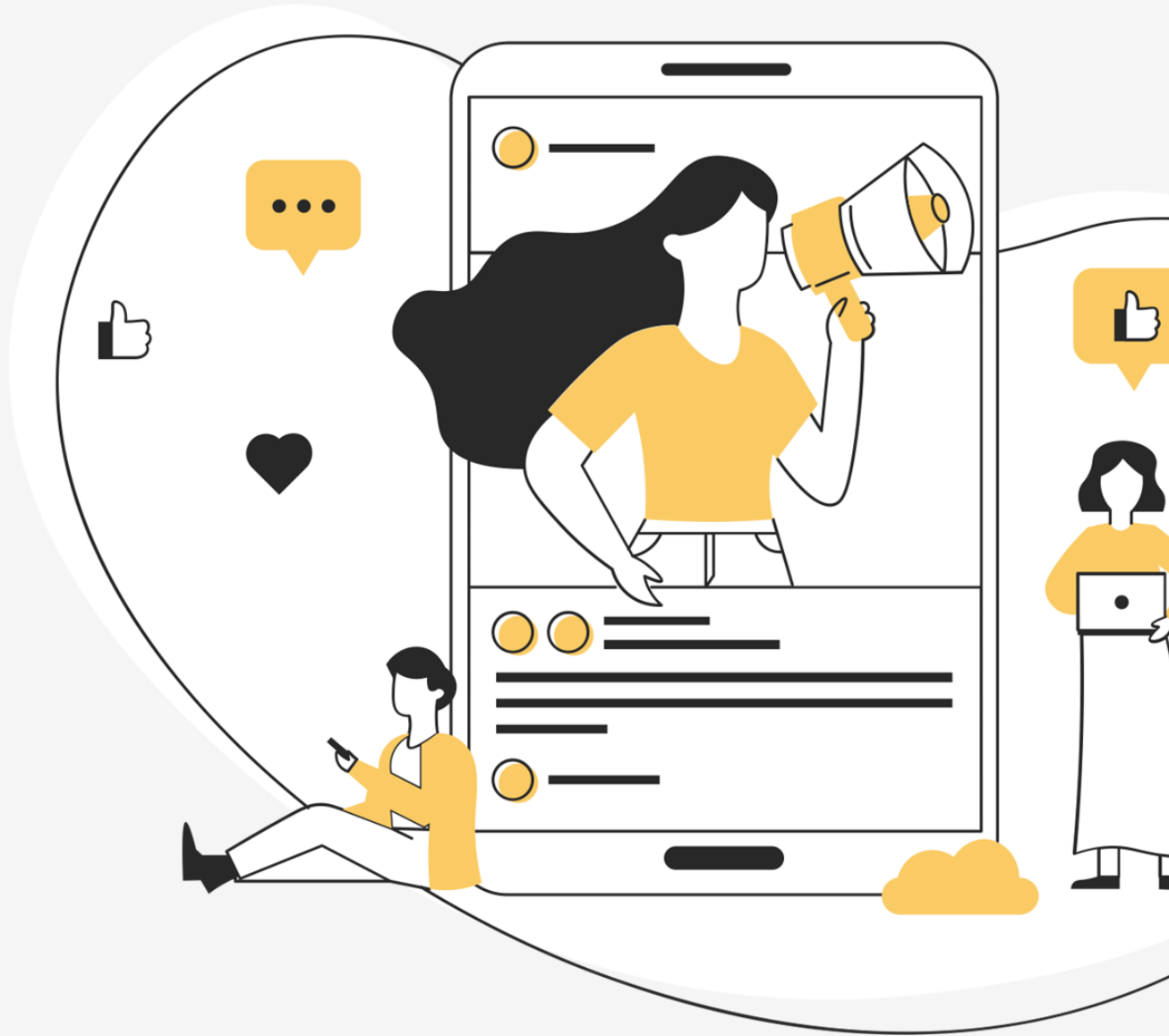


LAST WEEK'S FINDINGS

Qualified, helpful TAs are often regarded by students as **too scarce** to be worth seeking out time with

The TA recruitment process is **rigorous** and TAs are **underpaid**

CHANGE IN SCOPE



Resources for TAs and students



Improving school-provided in-person resources or finding them somewhere else

LAST WEEK'S POVs

We met “**Alan Turing**,” a hard-working high school student in the Bay Area.

We were surprised to realize that he chooses to get help from teachers in office hours as much as possible, but finds that their availability has dwindled and it's difficult to find help from teachers or other students without personal connections.

We wonder if this means that people would be more engaged in the learning process if they were getting help from other students with experience with that content.

It would be game-changing to **outsource in-person learning beyond a school's faculty and TAs.**

Game Changing to outsource in-person learning beyond a school's faculty and TAs

Game Changing to connect capable students and students in need of academic support

We met “**Grace Hopper**”, a current college junior at USC studying pre law, who previously attended UCSC and community college

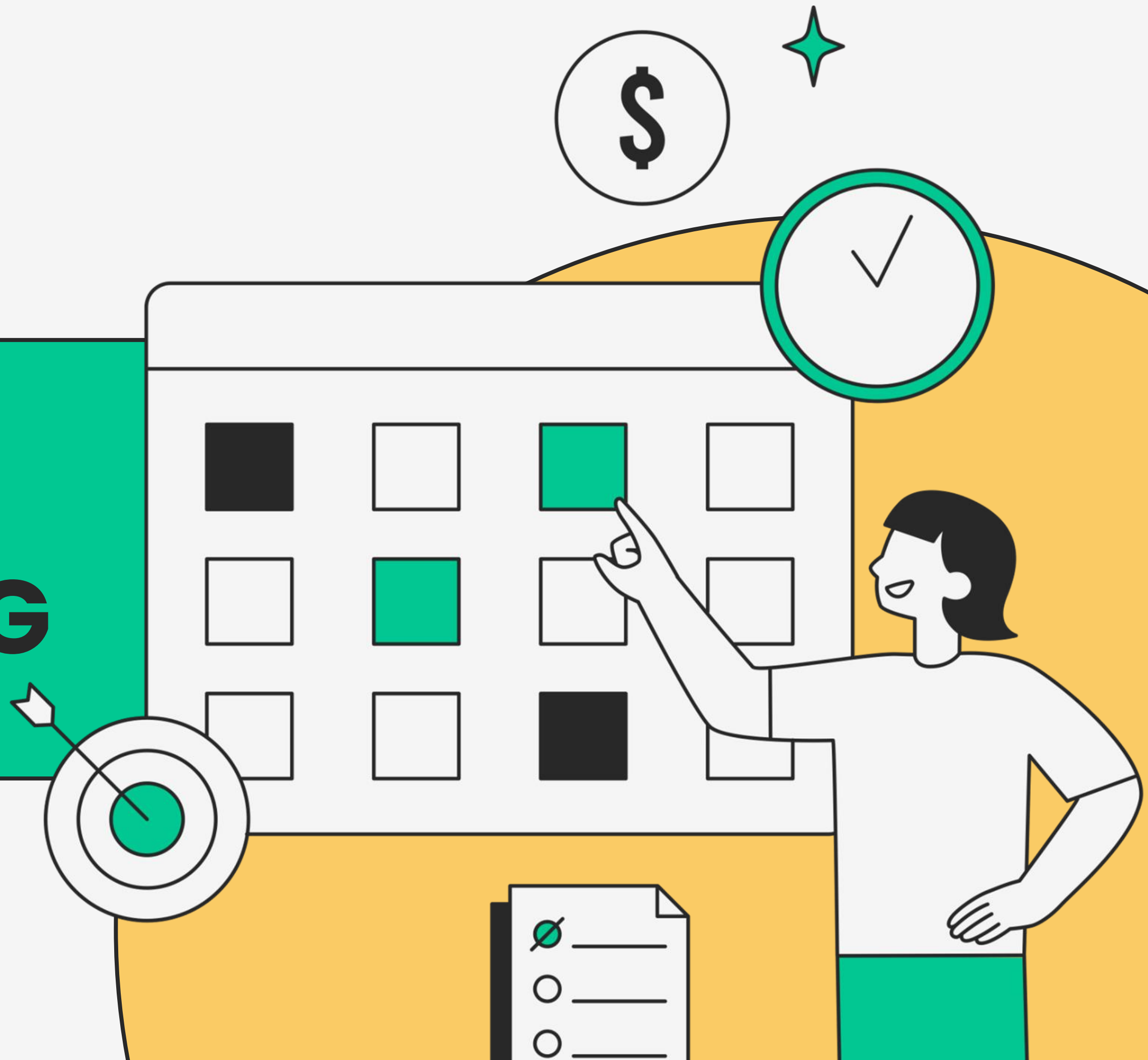
We were surprised to realize that she preferred to work with peers who are knowledgeable of the class than TAs

We wonder if this means that she feels discouraged and unsure by the academic support system and makes her feel to be less motivated in doing work.

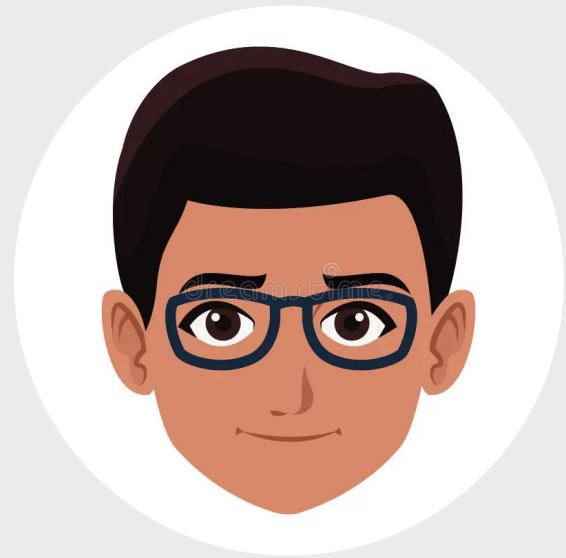
It would be game-changing to **connect capable students and students in need of academic support.**

02

ADDITIONAL NEEDFINDING



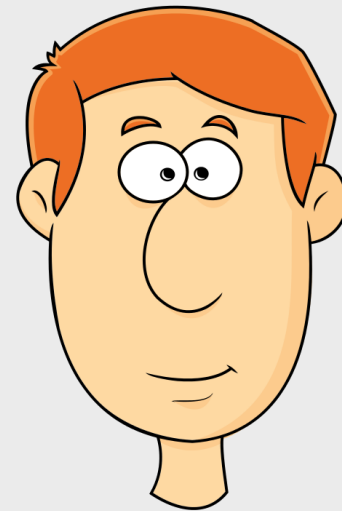
ADDITIONAL NEED FINDING



“Sam Altman”

UCSB Graduate
Acquaintance

Compensation: Jamba Juice



“James Gosling”

Teacher and Freelance Tutor
Acquaintance

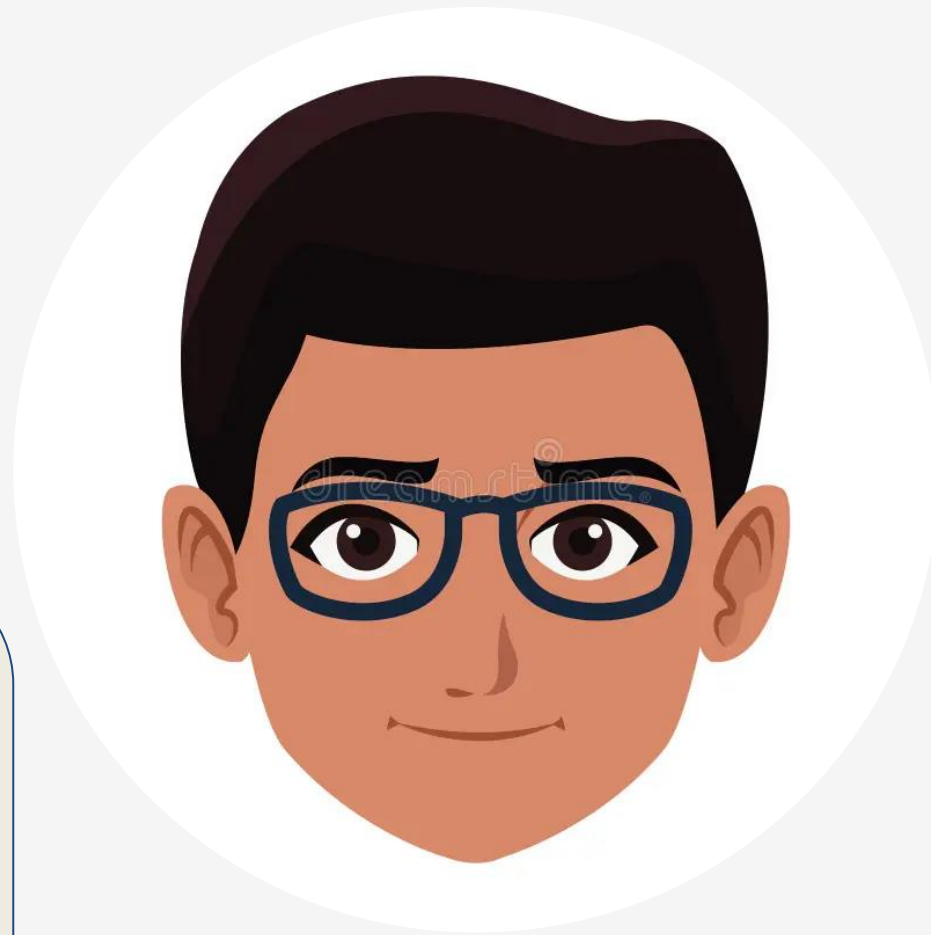
New Learnings:

- **Limited personalized support** in large STEM classes leads students to **rely on AI tools** for assistance.
- Need for **flexible learning resources** that support both students and educators.
- **Academic freedom for educators** could greatly improve student engagement + outcomes.

NEW POV #1: "SAM ALTMAN"

We met with "Sam Altman," a **recent UCSB graduate who used AI tools extensively in his learning process.**

We wonder if this means that "Sam's" eventual reliance on AI resulted from a **lack of personalized help** from a school incentivized not to provide any.



We are surprised to notice that introductory STEM classes at his school were **intentionally made difficult** enough to **discourage people from pursuing specific majors** and that the learning resources provided were either scarce, redundant, or irrelevant.

It would be game-changing to **create learning resources that help students seek in-person help to reduce the appeal of cheating with AI**

How might we ensure that TAs at office hours have time to teach the content rather than simply giving answers?

How might we redesign a 2000-person lecture to be more engaging and personalized?

How might we democratize peer tutoring so that every student has equal access to personalized help?

How might we design STEM courses that balance difficulty with support, so students are challenged but not overwhelmed?

How might we reduce the over-reliance on AI tools by improving the accessibility and quality of in-person academic support?

How might we make student support systems more flexible, addressing everyone's needs without slowing down advanced students?

How might we train tutors to help with the content rather than just provide answers?

How might we design large classes to ensure TAs have time to teach the content rather than simply giving answers?

How might we design AI tools that encourage deep learning rather than shortcutting?

How might we increase collaboration among students in large lectures to foster community and shared learning responsibility?

How might we design lecture content more relevant and applicable to real-world problems to reduce reliance on AI tools?

How might we create transparency and accountability for students who rely heavily on AI tools in their learning process?

How might we design learning resources that are more interactive and adaptable to individual students' needs?

NEW POV #2: "ADA LOVELACE"

We met with "Ada Lovelace," a **full-time TA and Edtech Researcher at Stanford University**, who has gone through the **extensive process** of becoming a TA.



We were surprised to notice how long and rigorous the hiring process is, yet it lacks proper training for those selected to become TAs.

We wonder if this means that many potential candidates are excluded because they don't fit into the narrow criteria required to complete the process.

It would be game-changing to **create a standardized system to prevent bias in hiring TAs and streamline the process, giving more people the opportunity to receive proper training and teach in a less rigid way.**

How might we make the TA hiring process more accessible to a diverse range of candidates?

How might we develop a standardized training program for TAs?

How might we prevent tunnel vision and ensure flexibility in the TA selection process?

How might we streamline the hiring process for TAs to

How might we create an environment for

How might we ensure proper training for TAs to increase their effectiveness?

What effort required in promising quality?

What technology to assist in a fair and efficient TA selection process?

How might we redesign the TA hiring process to include both technical skills and teaching abilities?

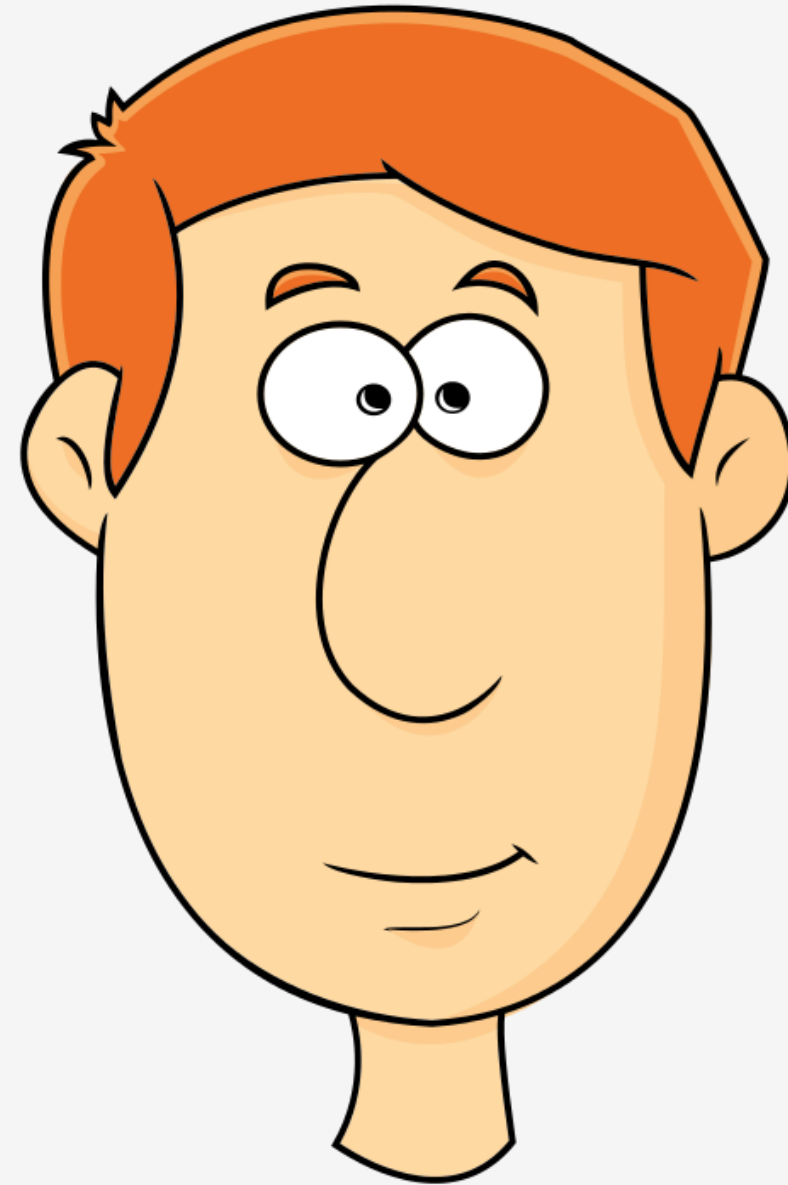
How might we ensure continuous feedback and support for TAs during and after their hiring process?

How might we make the TA hiring process adaptable to different departments' specific needs?

NEW POV #3: "JAMES GOSLING"

We met with James Gosling, a **freelance tutor**, who formerly taught English at high school, community college, and private college

We wonder if this means that many educators, especially junior faculty, are **stifled by these institutional constraints**, preventing them from exploring more dynamic and impactful teaching methods.



We were surprised to notice how restricted he felt by the **lack of academic freedom in traditional institutions**, where bureaucracy and rigid expectations **limited his ability to teach effectively** and connect with students.

Game-changing to create an environment that **promotes true academic freedom**, allowing educators the liberty to teach in ways that **foster deeper student engagement and accountability**, without being bound by outdated structures and expectations.

How might we allow tutors to customize their teaching approach to meet students' needs, breaking free from institutional constraints?

How might we develop a rating and review system that helps students find the most effective tutors based on teaching quality?

How might we create a platform where educators can bypass traditional bureaucracy?

How might we showcase their expertise?

How might we make the process of finding and booking a tutor as easy and seamless as booking an Uber?

What offers both virtual and in-person options to accommodate different preferences?

How might we provide flexible tutoring options that allow educators to set their own schedule and rates?

How might we empower junior faculty or aspiring educators to gain valuable teaching experience while tutoring?

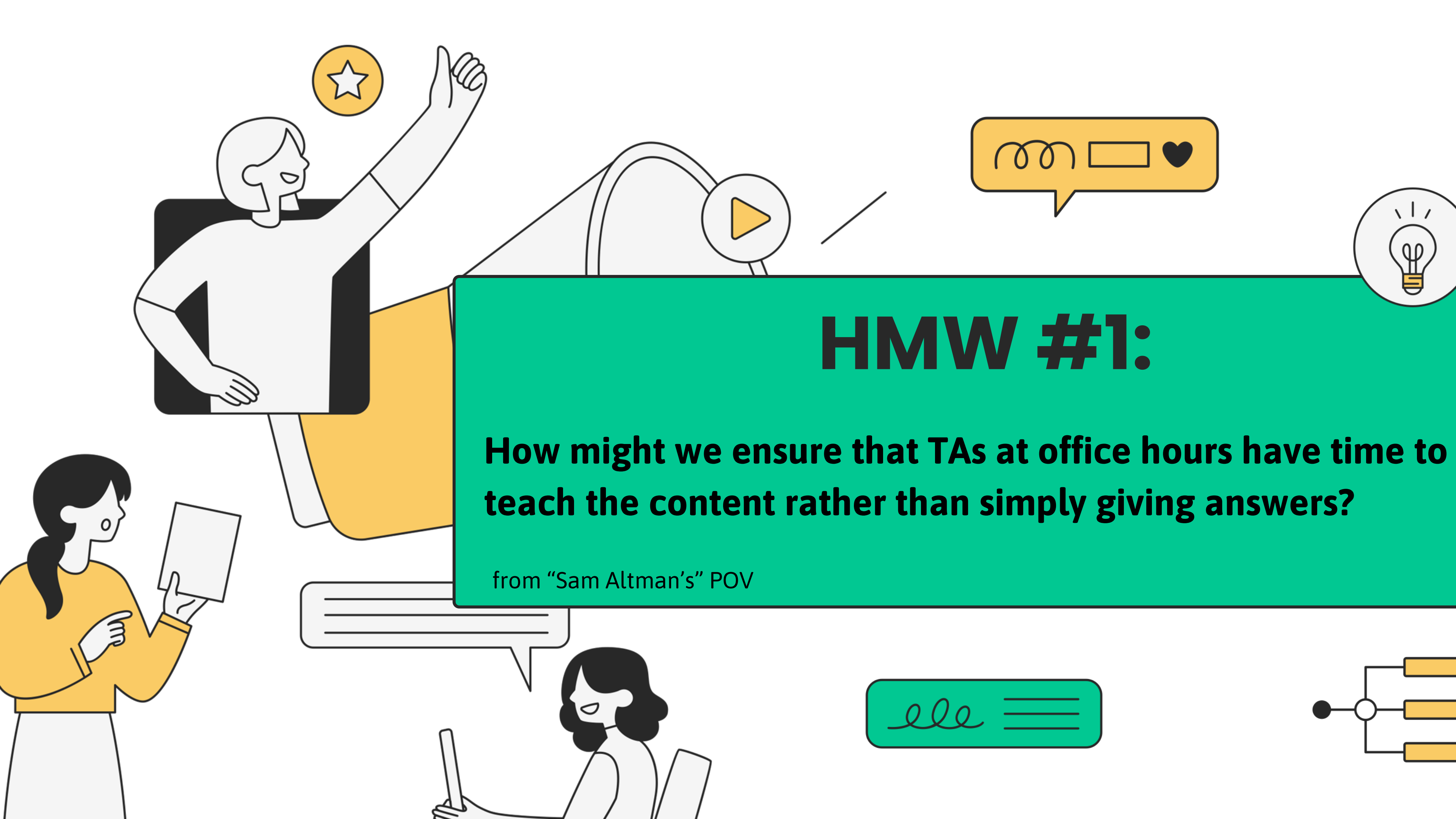
How might we leverage technology to create personalized learning experiences based on a student's needs and goals?

How might we make one-on-one tutoring more accessible to students with varying academic and financial needs?

03

FROM HMW's TO SOLUTIONS





HMW #1:

How might we ensure that TAs at office hours have time to teach the content rather than simply giving answers?

from "Sam Altman's" POV

ell ≡

Solution Idea 1

Create group-based office hours where students with similar questions can work together with guidance from the TA.

alexians

Train TAs in inquiry-based learning techniques to guide students through the problem-solving

Use a booking system that limits the number of students per session, allowing TAs to spend more time with each

Develop an online forum where TAs provide hints and guidance, not solutions, between office hours.

alexians

Encourage peer-to-peer learning within sections by making advanced students available for peer tutoring when needed.

alexians

Rotate TAs across different topic sections so students can benefit from multiple perspectives and teaching methods.

alexians

Implement structured problem-solving sessions that encourage critical thinking, rather than answer-checking.

alexians

Use a booking system that limits the number of students per session, allowing TAs to address common struggles proactively.

alexians

Use a booking system that limits the number of students per session, allowing TAs to address common struggles proactively.

alexians

Use a booking system that limits the number of students per session, allowing TAs to address common struggles proactively.



HMW #2:

How might we ensure proper training for TAs to increase their effectiveness?

from "Ada Lovelace's" POV

elle

Solution Idea 2

Create an online repository of teaching

Introduce micro-teaching sessions where

Regularly
TAs' experience
provide
practical
k.

Develop a comprehensive TA certification program that covers teaching skills and technology use.

Develop training modules on managing student expectations and conflict resolution.

most mock teaching sessions as part of the interview and training process.

Offer mentors program experier TAs guides.

alexians

be a support network where TAs can share their experiences and practices with each other.

platforms to provide digital tools and training specific to teaching environments.

focused on pedagogical techniques and classroom management.

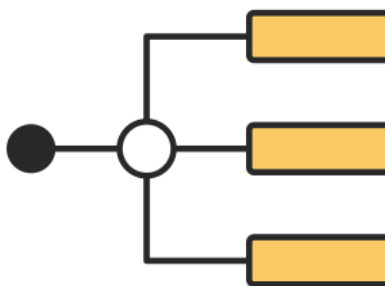
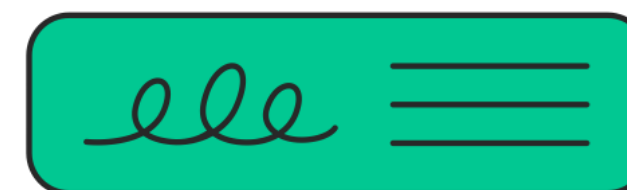
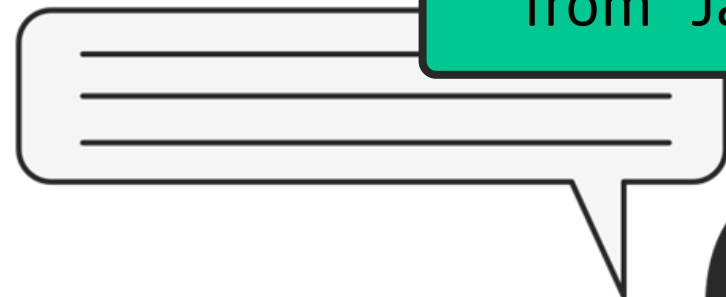
alexians



HMW #3:

How might we make the process of finding and booking a tutor as easy and seamless as booking an Uber?

from "James Gosling's" POV



Solution Idea 3

Instantly matches students with available tutors

A subscription-based service offering a set number of tutoring hours per month for consistent help.

A peer tutoring

An AI-platform that matches students with tutors based on learning style and academic needs

A marketplace where tutors list services, rates, and availability for students to browse and book.

Peer-style where students create profiles and connect

Offering tutoring with weekly sessions and progress assessments.

Offering tutoring for immediate or scheduled sessions.

Physical learning hubs where tutors and students can safely meet.

Physical learning hubs where tutors and students can safely meet.

alexians

alexians

alexians

alexians

04

OUR SOLUTIONS



PROTOTYPE 1: GROUP LEARNING SESSIONS

- Grouping students with similar questions into **small, teacher-assigned groups**.
- Encourages peer learning while **TAs facilitate critical thinking**

Concept



Format

Used a form to survey students' experience with class content and **form study groups based on responses**

A collaborative environment fosters **deeper understanding** and encourages **active participation**.

Critical Assumption



Step 1: Pre-Session Student Sign-Up and Topic Collection

Pre-Session Student Sign-Up and Topic Collection

Purpose: This form allows students to submit specific topics or problems they are struggling with ahead of office hours. The TA uses this information to group students with similar questions, facilitating collaborative learning during the session.

mpaturu@stanford.edu [Switch account](#)

Not shared

* Indicates required question

Name *

Your answer

Email *

Your answer

Topics/Concepts You Are Struggling With (be specific): *

Your answer

Specific Problems/Questions You Have (attach files if necessary): *

Your answer

Self-Assessment of Understanding (1 - not confident, 5 - I'm a master!): *

1
 2
 3
 4
 5

Preferred Office Hour Time Slot: *

Your answer

Submit
Clear form

Step 2: Dynamic Group Formation Based on Topics and Comfort Level with Content - INTERNAL USE

Group #	Students	Common Topic	Skill Balance	Notes
1	Alice, John, Maria	Integration Techniques	High	Maria has strong grasp of integration by parts, and can assist others with clarifying steps for solving. John and Alice are struggling with the substitution method but have basic understanding.
2	David, Sarah, James	Parametric Equations & Polar Coordinates	Medium	All have moderate understanding, but Sarah is slightly more comfortable with converting between parametric and Cartesian forms. Group may need extra TA guidance on polar area calculations.
3	Emily, Nathan	Taylor Series and Polynomial Approximations	Low	Both students have low confidence in understanding Taylor expansions and approximating functions using polynomials. TA will focus more on building foundational understanding.

Step 3: Notify Students of Group Assignments and Session Structure - TEMPLATE

Send
🔒 ⌵ 🗑️ 📧

To

Bcc

Cc

[CLASS TOPIC]: Group Assignment & Logistics Draft saved at 10:31 AM

Dear [Student Name],

Thank you for signing up for the upcoming **Study Collective Office Hour Session**. Based on the topics you submitted, you have been placed in **Group [Group #]** to focus on the topic of **[Common Topic]**.

Group Members:

- [Student 1]
- [Student 2]
- [Student 3]
- [Student 4] (if applicable)

Session Details:

- Date and Time:** [Insert Time Slot]
- Focus Topic:** [Topic/Concept]
- Location/Zoom Link:** [Link or Physical Room]

Session Structure:

During the session, we will work together on a set of structured problem-solving tasks that align with your questions. You'll have the opportunity to collaborate with your peers, and I will guide you through the process, asking questions to promote critical thinking and deeper understanding. We will use a shared digital whiteboard to collaborate, and you will receive a recording of the session afterward.

Looking forward to seeing you at the session!

Best regards,
[TA Name]

TEST RESULTS:

Stanford Math 21 Students

- **Enhanced Peer Learning:** Students reported **improved understanding** of complex topics and benefited **knowledge through collaboration.**
- **Increased Engagement in a Casual Setting:** Students were **more comfortable** asking for clarification **without the pressure** of one-on-one interactions.
- **Structured Problem-Solving:** Guided inquiry-based learning helped all groups avoid just answer-checking, promoting **deeper understanding and problem-solving confidence**
- **Distracting** - Large groups led to **off-topic discussions** which were counterproductive

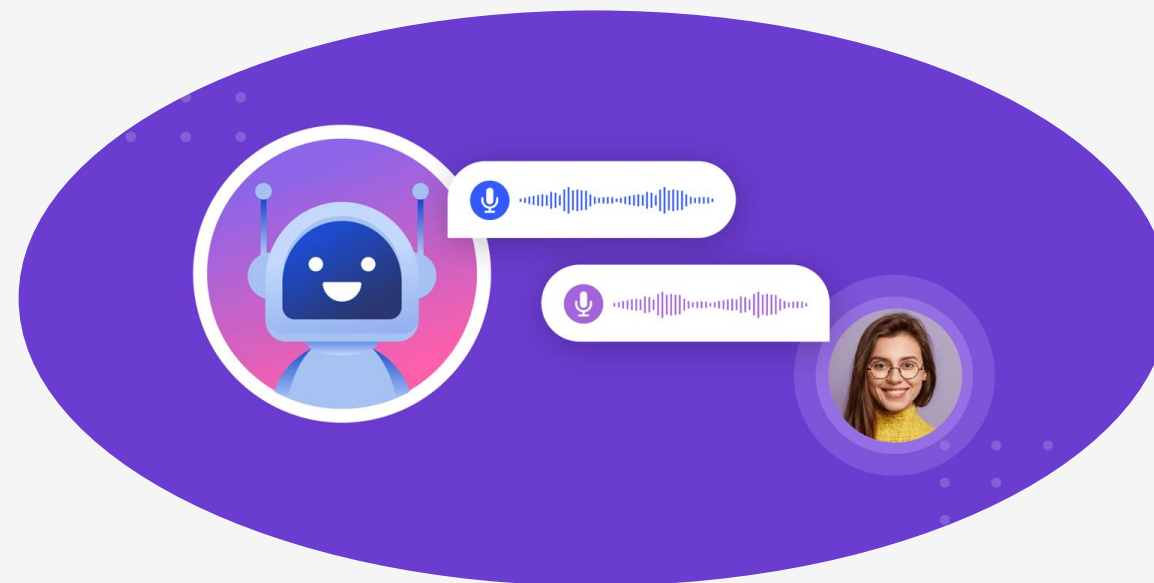


PROTOTYPE 2: AI-powered Training

Modules

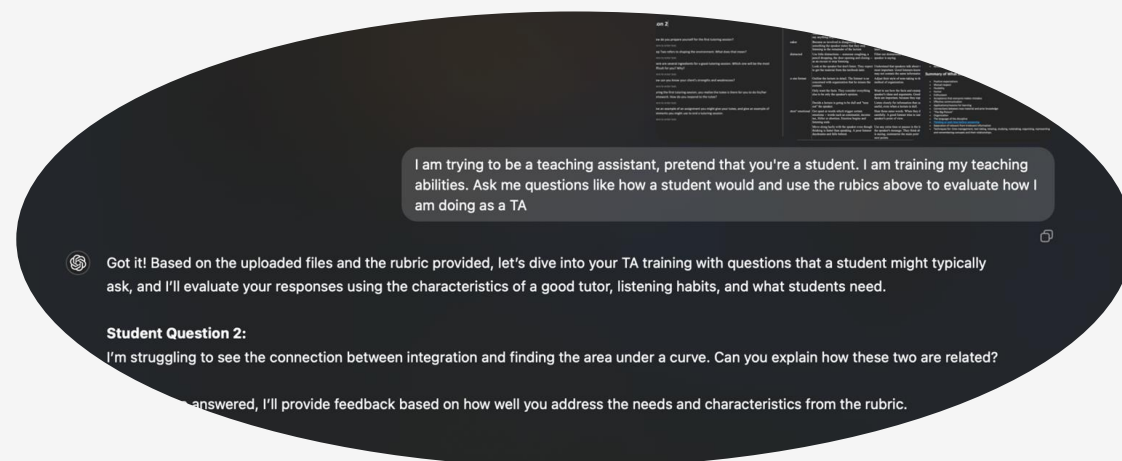
Use training modules and AI to help prospective TAs **prepare for real life scenarios** and provide better support to students in need

Concept



TAs will find it easier to practice training sessions with an **AI chatbot** that is readily available to give **instant feedback**

Critical Assumption



Format

Written material about how to handle a scenario, then an AI chatbot that **simulates that scenario and evaluates skills**



Teaching Assistant Rubric & Module

Feed into AI Chatbot

Training session with user and instant feedback

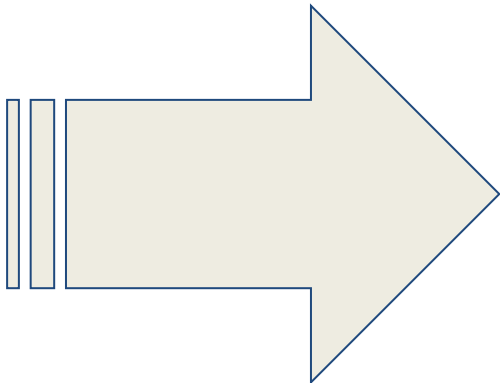
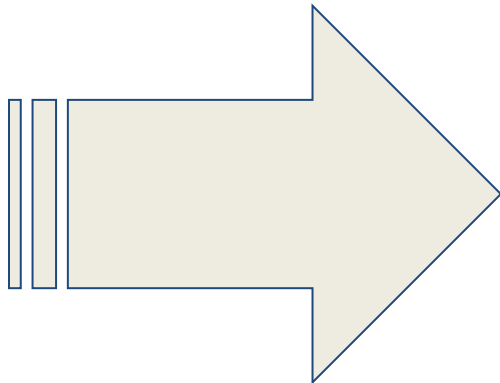
Characteristics of Good Tutors

Intelligence alone does not indicate success as a tutor; but what kind of person, what kind of student you are does. It takes a certain kind of person to be a good tutor. Some of the characteristics noticeable in good tutors are:

- A positive outlook: The belief that things can be changed through action.
- A desire to help others: The willingness to become involved with people at first hand and in depth.
- Empathy: The ability to feel what another person is feeling.
- An even disposition: Patience, gentleness, understanding and fairness.
- An open mind: A willingness to accept other people and their point of view.
- Initiative: The ability to see what needs to be done and to do something about it.
- Enthusiasm: A liking for your subject, and a wish to share it with others.
- Reliability as a worker: Punctual, dependable, steady.

Summary of What Students Need:

- Positive expectations
- Mutual respect
- Flexibility
- Humor
- Enthusiasm
- Acceptance that everyone makes mistakes
- Effective communication
- Applications/reasons for learning
- Connections between new material and prior knowledge
- "The Big Picture"
- Organization
- The language of the discipline
- Thinking or wait time before answering
- Separation of relevant from irrelevant information
- Techniques for: time management, test taking, relaxing, studying, notetaking, organizing, representing and remembering concepts and their relationships.



Session 3

Name: _____

1. What was your score on the communication test?
Click here to enter text.
2. Do you agree with the results of your communication test? Why?
Click here to enter text.
3. What can you do to establish rapport with your tutee?
Click here to enter text.
4. Why is it important to know why your student is seeking tutoring?
Click here to enter text.
5. What is the Socratic Method?
Click here to enter text.
6. There are several different types of probing questions. Name all of them and indicate which type will be used most often in your tutoring session. Why?
Click here to enter text.
7. Give an example of how you might handle a wrong answer from your tutee?
Click here to enter text.

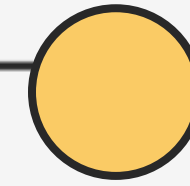
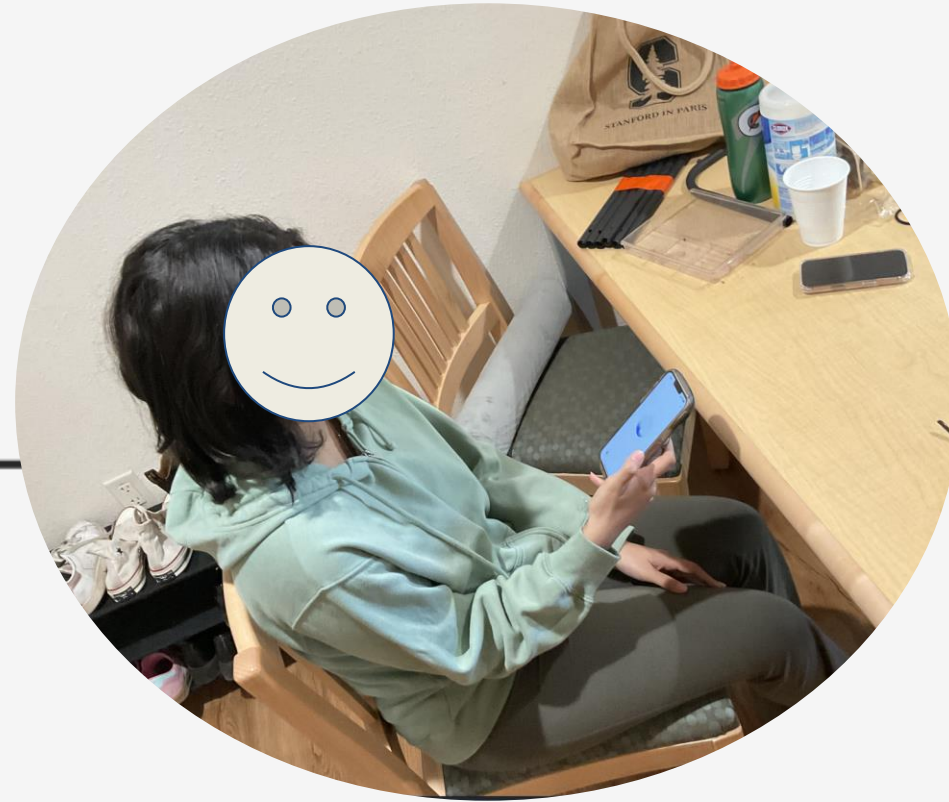
Group Tutoring:

- Time for each student is restricted.
- Multiple abilities and background of students complicate level and pace of instruction.
- Non-participation by some students can occur.
- Content covered must be suitable for the general needs of the group.

As you can see, individual tutoring has many natural benefits, while group tutoring requires a more conscious leadership role on the part of the tutor. The primary advantage of group tutoring (and disadvantage of individual tutoring) is the potential for the sharing of a variety of views and information. Groups also demonstrate cooperative attitudes and work skills in contrast to individual tutoring, which is more self-centered by nature. The following are some basic group tutoring guidelines that enhance group learning. Remember that these guidelines (and skills) require conscious leadership on the tutor's part.

- Keep in mind, as a group tutor, you are a resource for students and their learning. Your role is to facilitate their learning process.
- Stand or sit where all can see and hear you. Arrange seating so it encourages interaction and visibility.
- Waiting for students to volunteer a well-developed answer allows high-level thinking to take place. If you are uncomfortable waiting for 30 seconds, join students in looking through notes or text. If students are unable to answer the question, refer to the source of information.
- Respect all questions or responses offered by students, no matter how basic.
- Remember to use probing questions Please review at <http://uakron.edu/cpspe/agpa-k12outreach/best-teaching-practices/questioning>
- Don't allow individuals to dominate participation or discussion. Try to involve everyone in the learning activity; non-participants must be drawn into the activity.
- Please don't interrupt student answers. Group tutors should provide a comfortable environment for practicing. To check for understanding, ask another student to describe the same concept in his or her own words.
- Ask open-ended questions, and rephrase questions if they do not yield comments.
- Remember to include humor (Please see Supplemental Reading) in the group session.
- Keep the session on topic and moving at the appropriate pace for the group's abilities.
- Maintain productivity of the session by preventing irrelevant arguing or repetition.

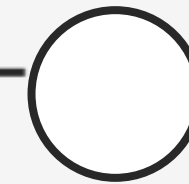
TEST RESULTS: Prospective Stanford Tutor/TA



Subjects

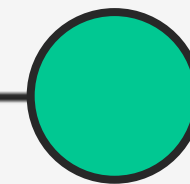
Prospective Stanford CS TA and Hume Tutor looking for ways to practice teaching and helping tutees learn

They were asked to act out a mock TA training session with a GPT voice chatbot (~25min)



The Subjects Liked:

The subject also liked the immediate and constructive feedback after training session and the accessibility of AI chatbot



Suggested Improvements:

Body language and in person dynamics are important to a tutoring session too, so it would be beneficial to have efficient training in that aspect as well

PROTOTYPE 3: PEER TUTORING

An application to match struggling students with **student tutors who have taken the class** and can work around a **busy schedule**.

Concept



Format

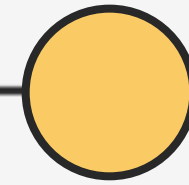
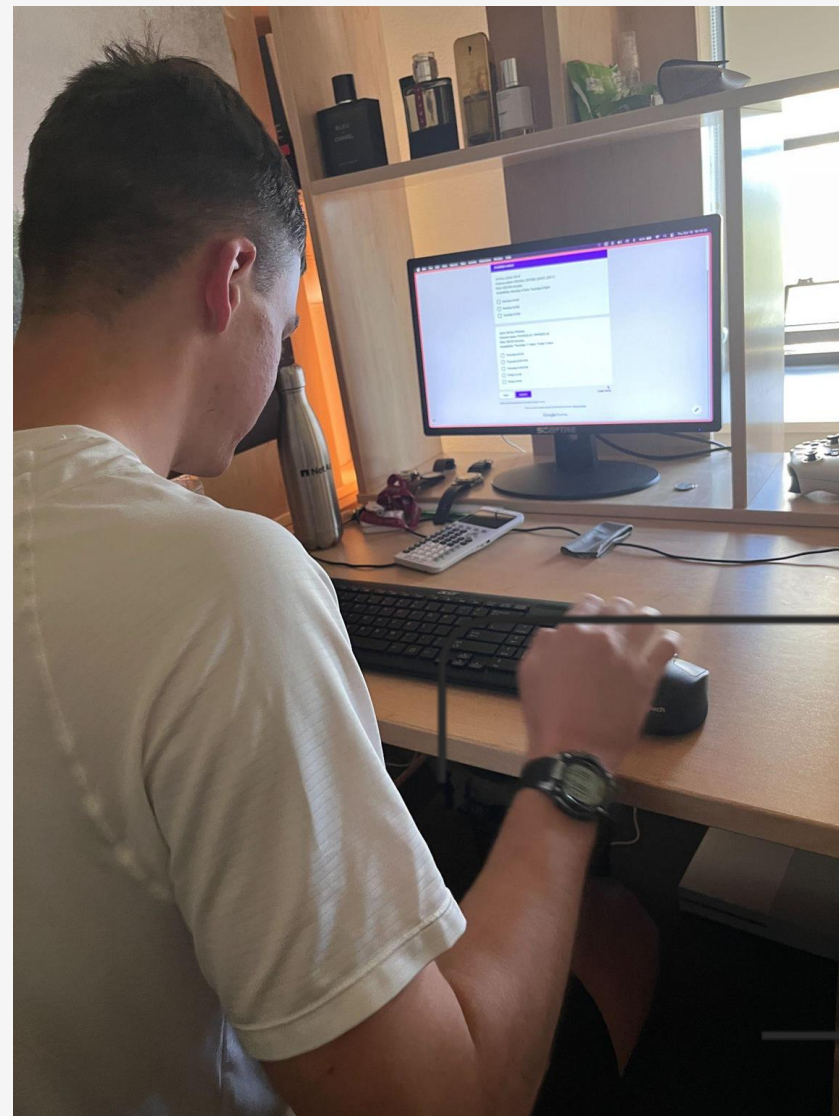
A Google Form with questions about needs for a tutor and schedule, followed by a fake **“matches” page**

College students want to be tutored by someone who has **experience with a class they're struggling with**.

Critical Assumption

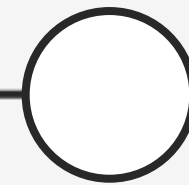


TEST RESULTS



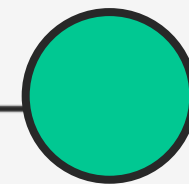
Subject

A Stanford sophomore who has **sought out student tutors** before.



The Subject Liked:

- The ability to fill out a schedule and pick session lengths
- Specify which specific classes and content to receive help on



Suggested Improvements:

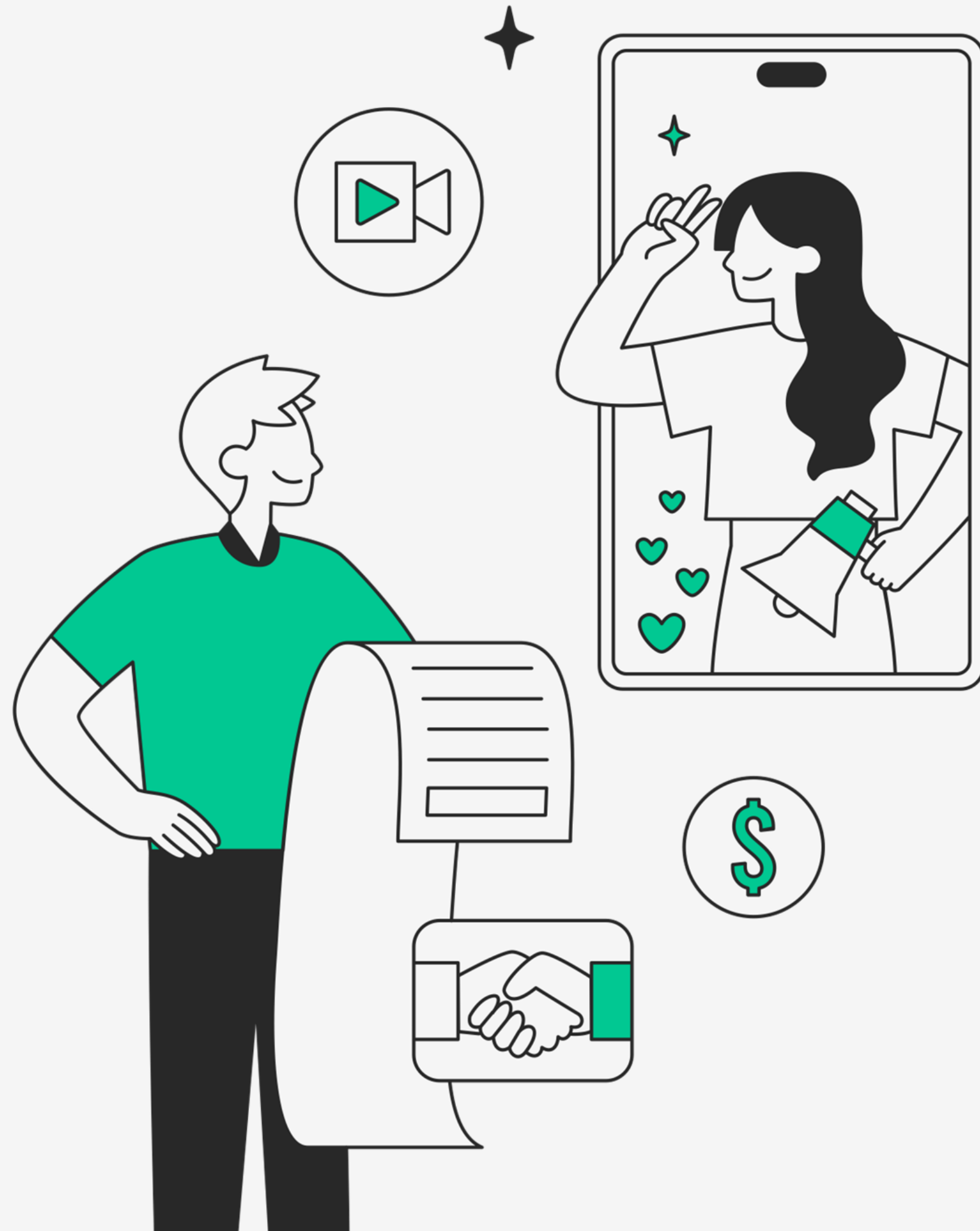
Would not have paid for a session before seeing **each tutor's grades in relevant classes**
Would appreciate a bio for tutors to describe **extracurricular qualifications**

What classes are you looking to be tutored in?

- CS 106A
- CS 106B
- MATH 51
- PHYSICS 21
- COLLEGE 101
- ENGR 40M
- FEMGEN 101

How long of a meeting would you like?

- 20 minutes
- 50 minutes
- 80 minutes

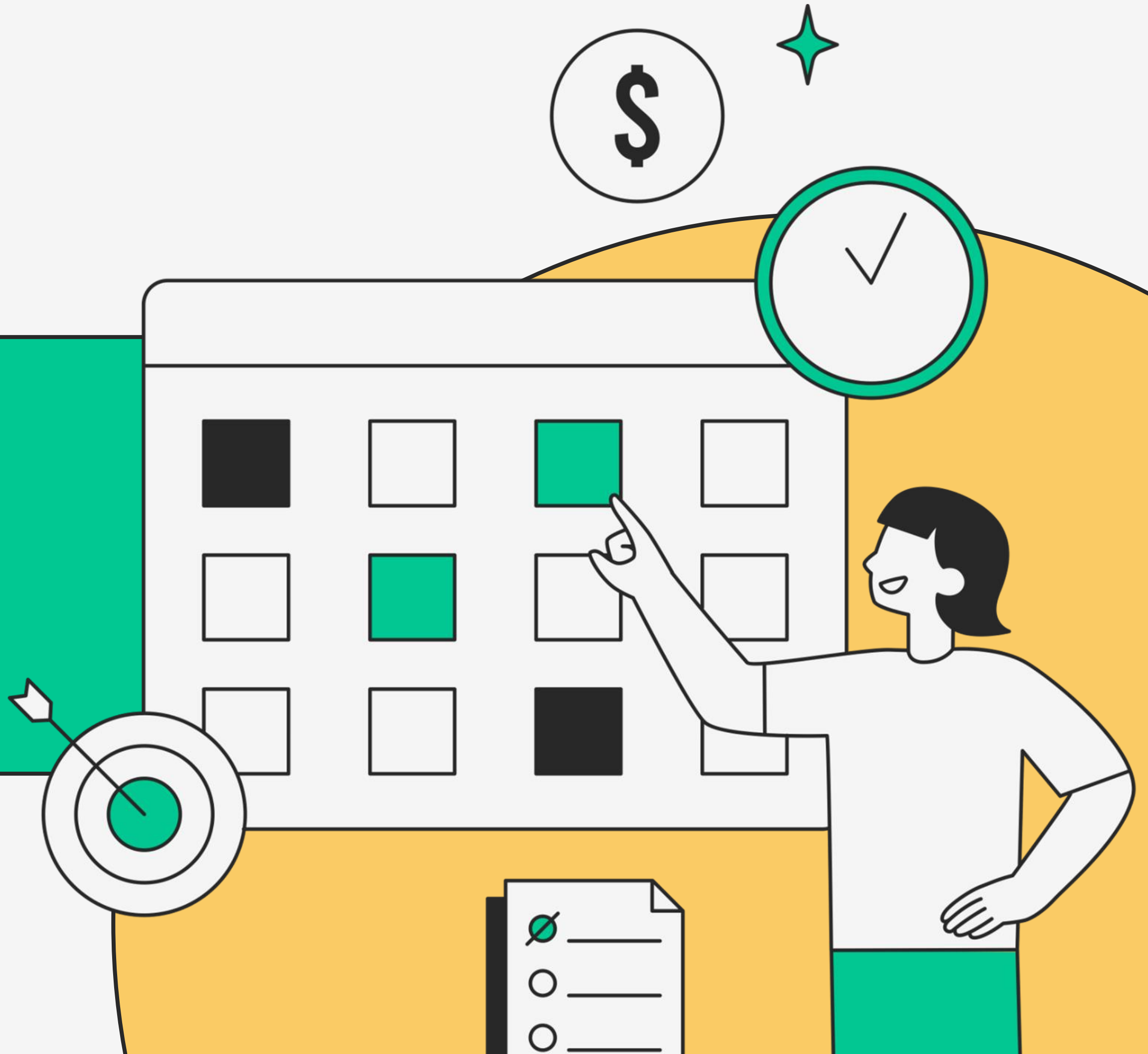


MAIN TAKEAWAYS

- Students want to be taught by people who are **familiar with the course**, but won't trust a tutor they don't know without seeing **grades and qualifications**
- Collaboration between students fosters an **exchange of problem-solving strategies** and elevates their learning experience **but large groups can be distracting at times**
- For individual learning, an AI chatbot can provide **instant feedback** and create a back-and-forth with the user, encouraging the **flow of ideas**

05

WHAT'S NEXT?

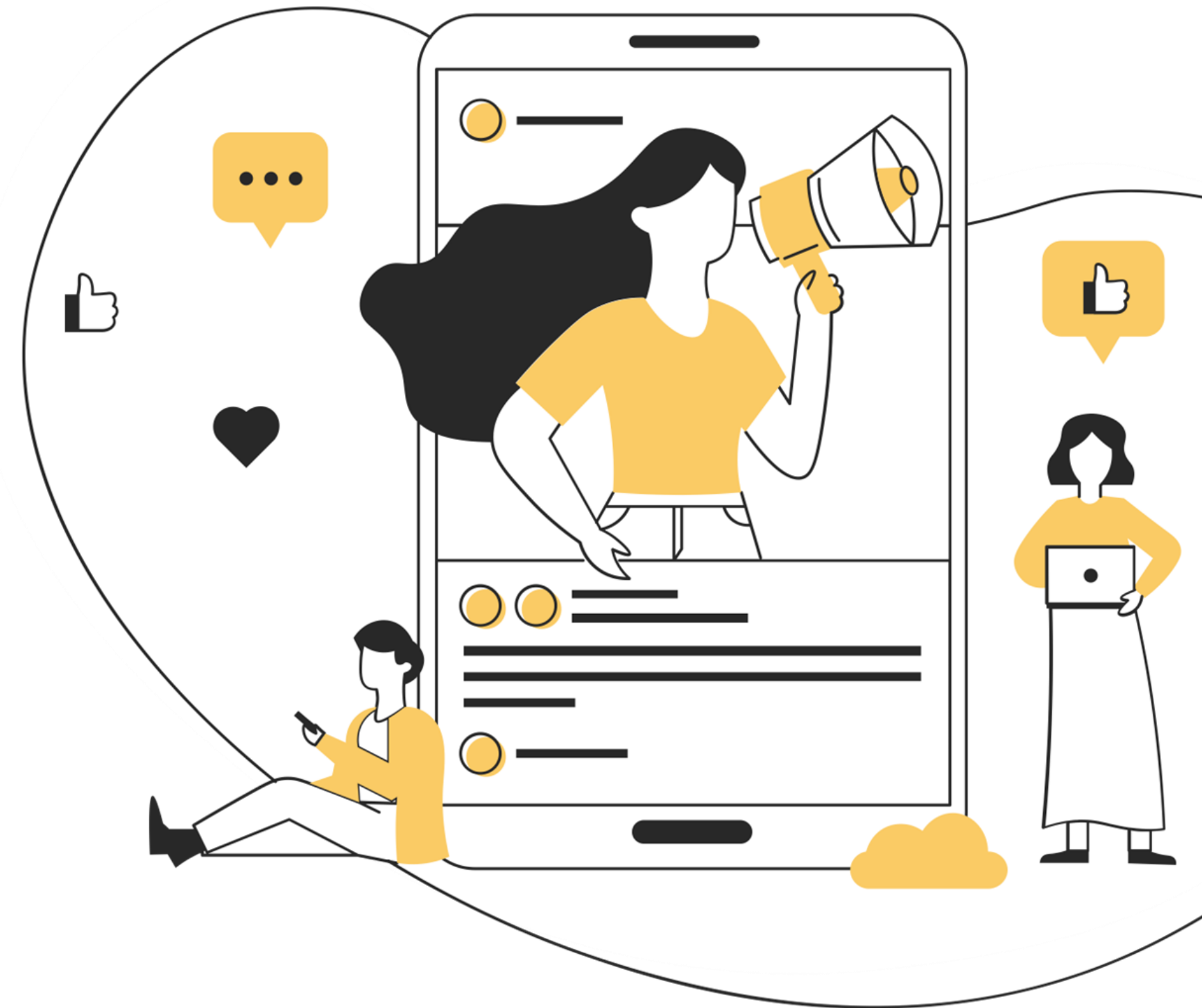


OUR BIGGEST SUCCESS: PEER TUTORING

We decided to pursue: a student-tutor matching platform where students can make requests to peer tutors who match their specific needs, allowing students and tutors to work around their own schedules and set their tutoring rates

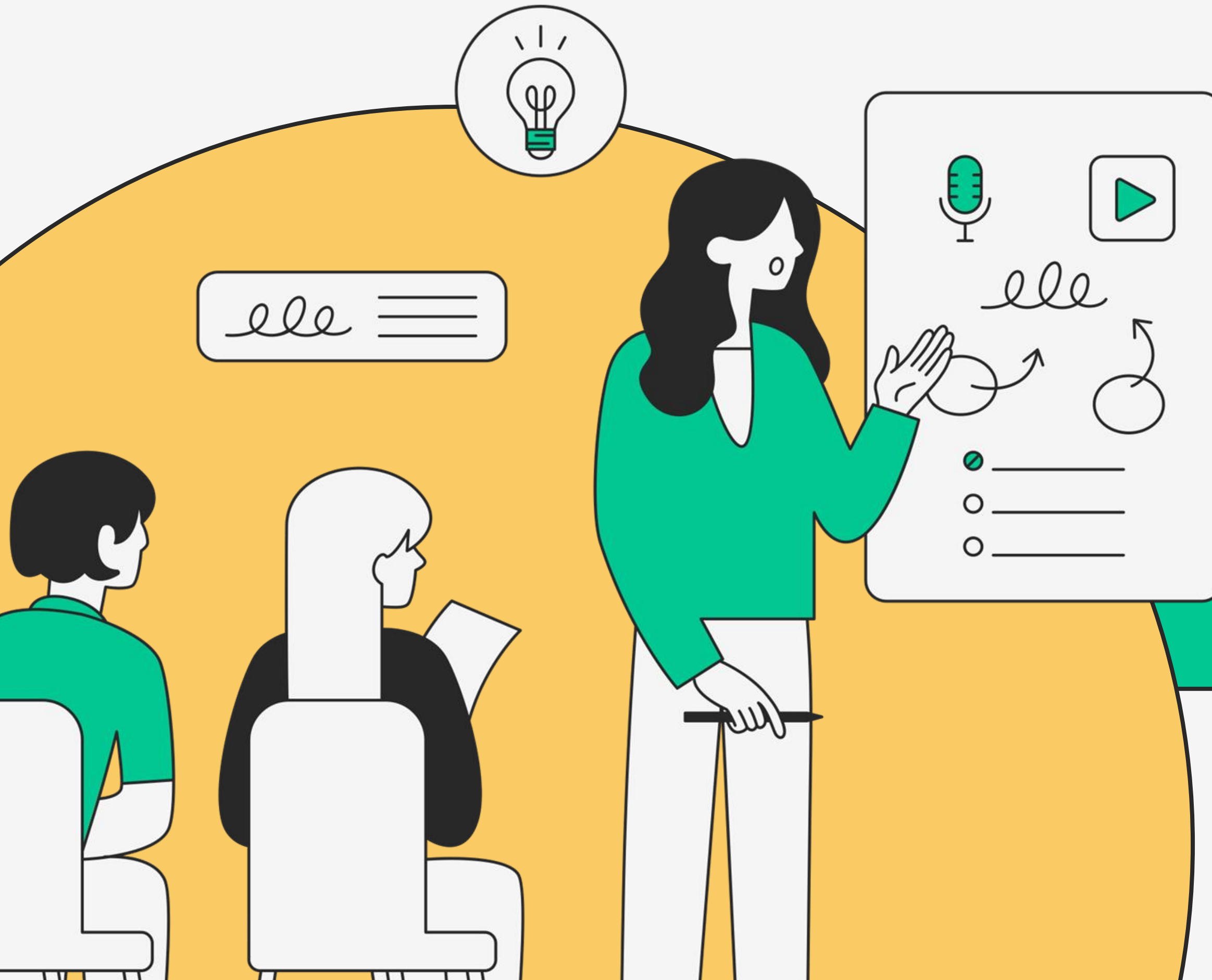
Ethical Considerations: User safety, data privacy, equity & access, academic integrity

Our solution will serve students who need quick and quality academic support and capable students looking to make money through tutoring



06

APPENDIX



NEW POV #1: "SAM ALTMAN"

We met with "Sam Altman," a recent UCSB graduate who **used AI tools extensively in his learning process**. We are surprised to notice that introductory STEM classes at his school were intentionally made difficult enough to discourage people from pursuing specific majors and that the learning resources provided were either scarce, redundant, or irrelevant. We wonder if this means that Sam's eventual reliance on AI resulted from a lack of personalized help from a school incentivized not to provide any. It would be game-changing to **create learning resources that help students seek in-person help to reduce the appeal of cheating with AI**.

How might we redesign a 2000-person lecture to be more engaging and personalized?

How might we ensure that TAs at office hours have time to teach the content rather than simply giving answers?

How might we make student support systems more flexible, addressing everyone's needs without slowing down advanced students?

How might we incentivize tutors to help with the learning process rather than just provide answers?

How might we make lecture content more relevant and applicable to real-world problems to reduce reliance on AI tools?

How might we increase collaboration among students in large lectures to foster community and shared learning responsibility?

How might we reduce the over-reliance on AI tools by improving the accessibility and quality of in-person academic support?

How might we design learning resources that are more interactive and adaptable to individual students' needs?

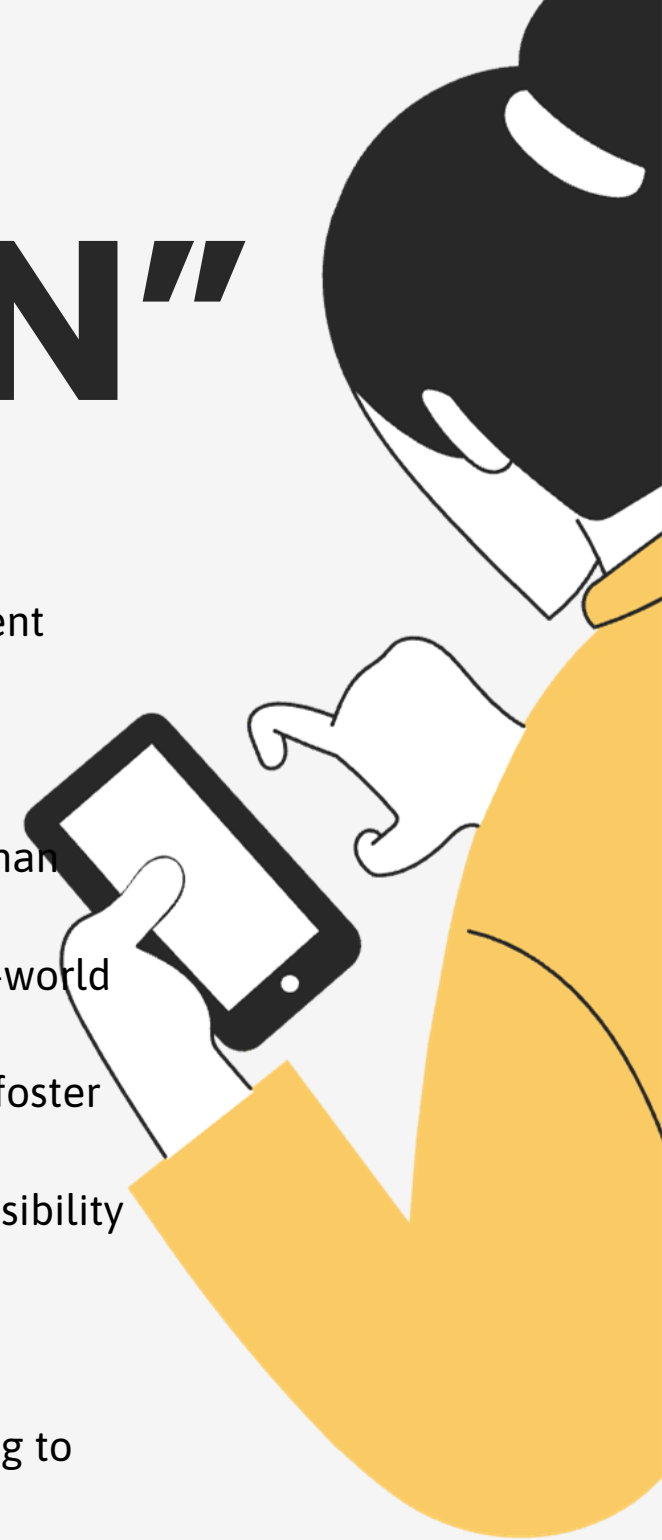
How might we encourage students to seek in-person help instead of turning to AI-driven shortcuts?

How might we create an academic culture that values mastery of concepts over quick solutions?

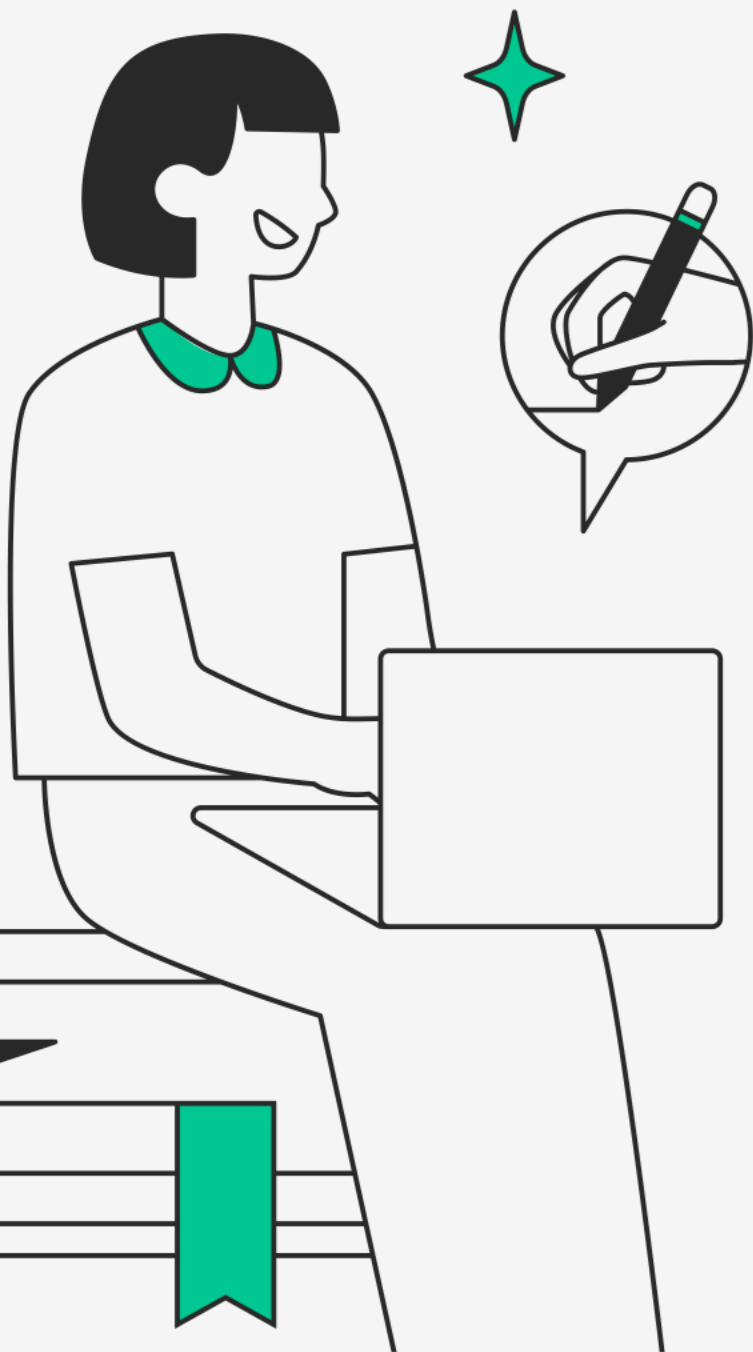
How might we design STEM courses that balance difficulty with support, so students are challenged but not overwhelmed?

How might we introduce peer-assisted study sessions in large classes to promote active, group-based learning?

How might we create transparency and accountability for students who rely heavily on AI tools in their learning process?



NEW POV #2: “ADA LOVELACE” (from last week’s interviews)



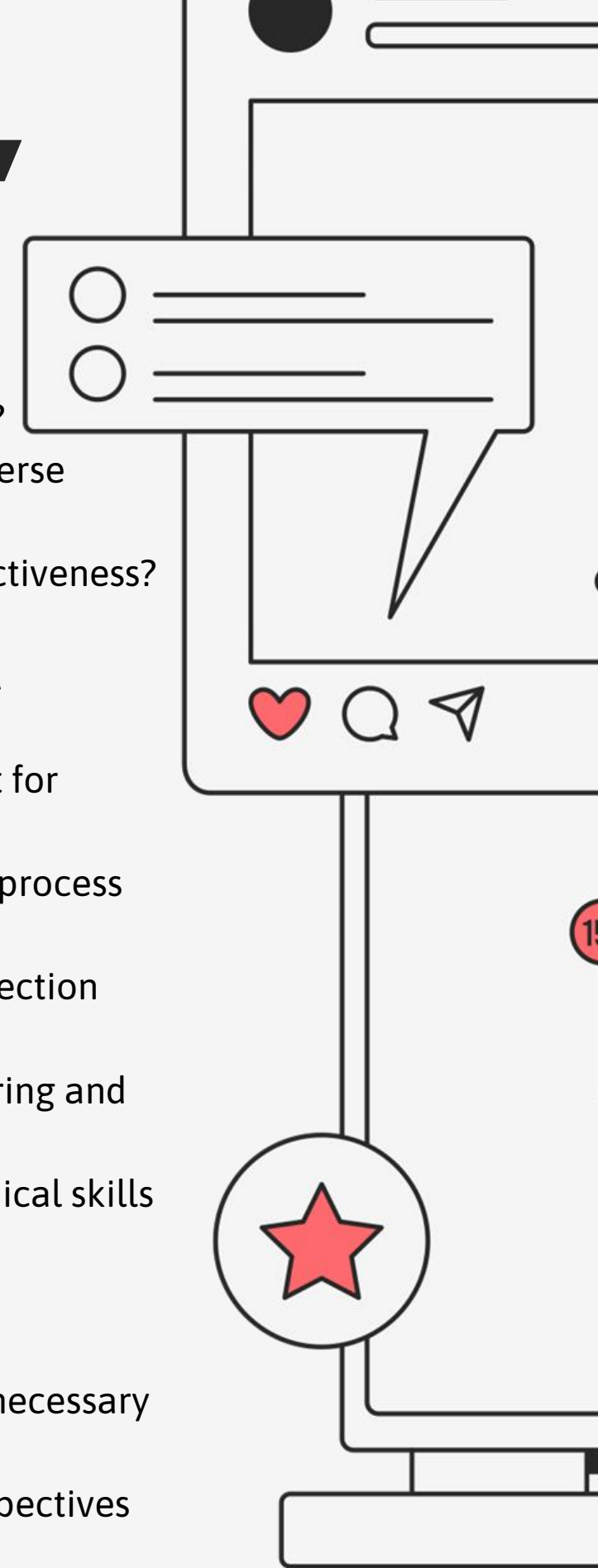
We met with “Ada Lovelace,” a **full-time TA and Edtech Researcher at Stanford University**, who has gone through the extensive process of becoming a TA. We were surprised to notice how long and rigorous the hiring process is, yet it lacks proper training for those selected to become TAs. We wonder if this means that many potential candidates are excluded because they don't fit into the narrow criteria required to complete the process. It would be game-changing to **create a standardized system to prevent bias in hiring TAs and streamline the process**, giving more people the opportunity to receive **proper training and teach in a less rigid way**.

- How might we streamline the hiring process for TAs to reduce bias?
- How might we make the TA hiring process more accessible to a diverse range of candidates?
- How might we ensure proper training for TAs to increase their effectiveness?
- How might we develop a standardized training program for TAs?**
- How might we prevent tunnel vision and ensure flexibility in the TA selection process?
- How might we create a more inclusive and supportive environment for prospective TAs during hiring?
- How might we reduce the time and effort required in the TA hiring process without compromising quality?
- How might we use technology to assist in a fair and efficient TA selection process?
- How might we ensure continuous feedback and support for TAs during and after their hiring process?
- How might we redesign the TA hiring process to include both technical skills and teaching abilities?
- How might we make the TA hiring process adaptable to different departments' specific needs?
- How might we encourage prospective TAs to apply by reducing unnecessary hiring hurdles?
- How might we eliminate bias in interviews and ensure diverse perspectives in the hiring panel?
- How might we create a mentorship system for new TAs to learn and adapt more effectively?

NEW POV #3: "JAMES GOSLING"

We met with "James Gosling," a **former high school English teacher with 20 years of experience**, who also taught world history at both private universities and community colleges before transitioning into freelance tutoring and educational counseling. We were surprised to notice how restricted he felt by the lack of academic freedom in traditional institutions, where bureaucracy and rigid expectations limited his ability to teach effectively and connect with students. We wonder if this means that many educators, especially junior faculty, are stifled by these institutional constraints, preventing them from exploring more dynamic and impactful teaching methods. It would be game-changing to **create an environment that promotes true academic freedom, allowing educators the liberty to teach in ways that foster deeper student engagement and accountability, without being bound by outdated structures and expectations.**

- How might we streamline the hiring process for TAs to reduce bias?
- How might we make the TA hiring process more accessible to a diverse range of candidates?
- How might we ensure proper training for TAs to increase their effectiveness?
- How might we develop a standardized training program for TAs?
- How might we prevent tunnel vision and ensure flexibility in the TA selection process?
- How might we create a more inclusive and supportive environment for prospective TAs during hiring?
- How might we reduce the time and effort required in the TA hiring process without compromising quality?
- How might we use technology to assist in a fair and efficient TA selection process?
- How might we ensure continuous feedback and support for TAs during and after their hiring process?
- How might we redesign the TA hiring process to include both technical skills and teaching abilities?
- How might we make the TA hiring process adaptable to different departments' specific needs?
- How might we encourage prospective TAs to apply by reducing unnecessary hiring hurdles?
- How might we eliminate bias in interviews and ensure diverse perspectives in the hiring panel?
- How might we create a mentorship system for new TAs to learn and adapt more effectively?



Brainstorm Solution #1

“Office Hour Bot”: An AI-powered assistant that helps answer basic questions, allowing TAs to focus on deeper teaching.

Adaptive Learning Session App: Tailored, AI-driven learning sessions with TAs based on the student’s progress and areas of confusion.

Learning Progress Tracker: App that tracks a student’s learning gaps and suggests questions based on what they don’t understand, which TAs can review.

TA “Teaching Game”: Gamify office hours, where TAs guide students through mini-learning challenges before they get direct answers.

TA Skill Workshops: Monthly workshops for TAs to improve teaching methods, focusing on leading conceptual discussions over quick answers.

How might we ensure that TAs at office hours have time to teach the content rather than simply giving answers?

Interactive Concept Builder: Software where students build visual concept maps before meeting with TAs, helping TAs identify areas for instruction.

TA Skill Workshops: Monthly workshops for TAs to improve teaching methods, focusing on leading conceptual discussions over quick answers.

Real-time Q&A Whiteboard: A collaborative digital whiteboard where students post questions and TAs answer by breaking down concepts for group learning.

Brainstorm Solution #2

Interactive Concept Builder: Software where students build visual concept maps before meeting with TAs, helping TAs identify areas for instruction.

Real-Time Feedback App: An app where students can give anonymous feedback on TAs' teaching methods during office hours for real-time improvement.

How might we ensure proper training for TAs to increase their effectiveness?

Peer Review System: TAs review each other's teaching methods and provide feedback to improve.

TA Training Simulator: Create an AI-powered simulator where TAs practice answering common student questions in real-time.

TA Teaching Toolkit: Provide TAs with digital teaching resources like slides, concept maps, and interactive exercises tailored to the course.

AI TA Training Advisor: AI-driven platform that analyzes a TA's interactions and suggests improvements in clarity, pacing, and engagement.

Brainstorm Solution #3

Real-Time Availability Map: A live map showing nearby tutors available now, allowing instant booking for immediate help.

Dynamic Pricing: Surge pricing for high-demand times or subjects, offering flexibility for both tutors and students.

Peer Review System: TAs review each other's teaching methods and provide feedback to improve.

"Smart Tutor" Matching Algorithm: AI-driven algorithm that learns students' preferences and suggests tutors based on teaching style and past success rates.

- **Automatic Scheduling:** Syncs tutor availability with students' calendars, proposing the best times based on mutual openings.

How might we make the process of finding and booking a tutor as easy and seamless as booking an Uber?

Instant Messaging & Video Integration: In-app messaging and video options for immediate sessions after booking without external tools.

TA Skill Workshops: Monthly workshops for TAs to improve teaching methods, focusing on leading conceptual discussions over quick answers.

Tutor Profiles with Ratings: Profiles with ratings, reviews, and specialties displayed upfront, making it easy to choose a tutor like selecting a ride tier.

Assumptions: Study group

- Students will prefer collaborative group-based learning to traditional one-on-one TA sessions.
- Grouping students based on similar topics of confusion will enhance the relevance and depth of the learning experience.
- More advanced students will benefit from explaining concepts to their peers, reinforcing their understanding.
- Structured problem-solving will lead to better critical thinking skills compared to direct answer-providing methods.
- Students will feel more motivated and less isolated when working in groups on difficult topics.
- Peer interactions will help clarify concepts that students might find intimidating to ask the TA directly.
- Checkpoints throughout the session will help students stay on track and provide a sense of accomplishment.
- Using a collaborative digital whiteboard will make the group learning process more interactive and accessible.
- Students will appreciate receiving recordings of the sessions to review the discussed concepts, reinforcing learning.
- Inquiry-based facilitation by the TA will lead to deeper learning compared to straightforward explanations.

Key Assumption:

Grouping students based on similar topics of confusion will enhance the relevance and depth of the learning experience

Assumptions: Uber like app

- Students will appreciate the convenience of finding and booking tutors instantly, similar to booking an Uber rides
- Students are more likely to choose a tutor based on high ratings and detailed reviews, trusting the feedback from other users
- Tutors will be motivated to offer their services on Tutti due to the ease of setting up availability and secure, automated payments.
- Students will value having multiple session types available, including on-demand, one-on-one, and group tutoring.
- Geolocation-based tutor matching will appeal to students who prefer in-person sessions, especially for urgent academic needs.
- The AI-driven matching algorithm will effectively connect students with tutors that align with their learning needs and preferences.
- A flexible payment system within the app will encourage more students to book tutoring sessions without concerns over payment processing.
- Push notifications and in-app messaging will be essential for keeping students and tutors organized and informed about sessions and expectations.
- Students will appreciate being able to set academic goals and track their learning progress over time, leading to more meaningful engagement with the app.
- The rating and review system will create a sense of accountability, driving tutors to maintain high-quality sessions to receive better visibility.

Key Assumption:

Students will appreciate the convenience of finding and booking tutors instantly, similar to booking an Uber rides

Assumptions: Training Module

- TAs will benefit from structured training on managing student expectations and conflict resolution, especially if they are new to teaching roles.
- Establishing clear expectations at the beginning of a course will help minimize confusion and improve student satisfaction.
- TAs will feel more confident in their role if they practice setting boundaries and communicating their scope of assistance through role-play or simulated sessions.
- Practical training on handling conflicting student demands will empower TAs to manage requests without feeling overwhelmed.
- Teaching TAs effective conflict resolution techniques will lead to more positive interactions between students and TAs, contributing to a supportive learning environment.
- Culturally sensitive training will enable TAs to handle conflicts arising from differences in communication styles, creating an inclusive classroom.
- TAs who understand how to deliver constructive feedback will help students feel encouraged rather than discouraged by their evaluations.
- Role-playing conflict and feedback scenarios will improve TAs' ability to handle real-life student interactions diplomatically and confidently.
- The use of pre-made tools like grading templates and feedback rubrics will ensure consistency across different TAs and reduce ambiguity for students.
- Ongoing workshops and webinars will help TAs continuously improve their skills in conflict resolution and managing student expectations, ensuring continuous professional development.

Key Assumption:

TAs will benefit from structured training on managing student expectations and conflict resolution, especially if they are new to teaching roles.