

Challenges in Academic Support: Insights into Existing Gaps

Needfinding Report



Meet the Team!



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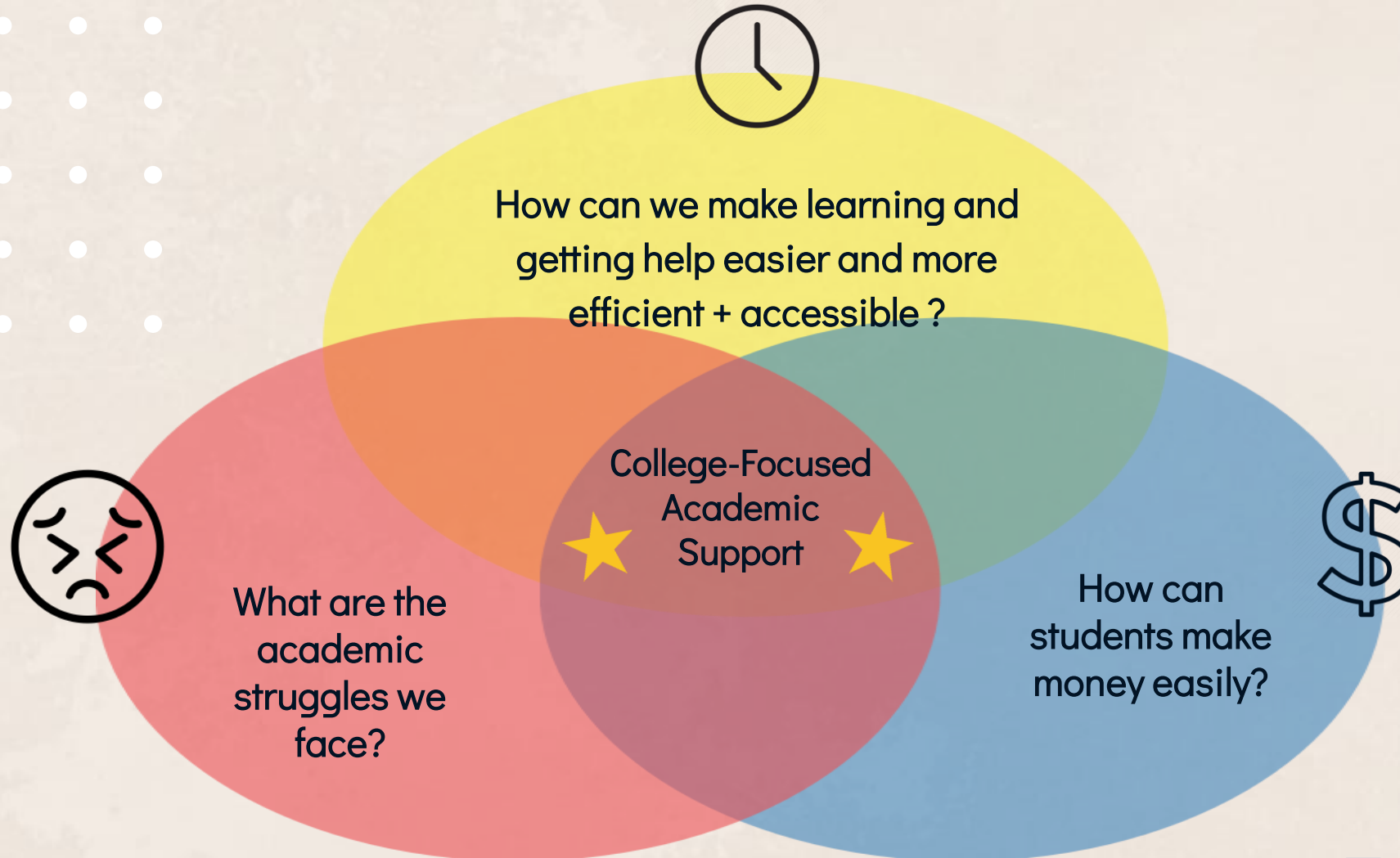


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Domain Selection



Guiding Questions

What challenges do you face when trying to get help from teaching assistants (TAs) or professors?

Instead of limiting AI usage in academic environments, how can AI be leveraged to enhance and empower learning?

How well do the school's support services align with your learning needs?

How effective were online platforms provided by the school for getting academic help (e.g., discussion boards, virtual office hours)?

What and how is the process and effects of becoming a TA/Tutor?



Finding Participants

Range of Student Ages: High School, College, Master's/TA

Within and Beyond the Stanford Community

Diversity of Academic Backgrounds (Different Majors/Minors)

Variety of Schooling Systems: Homeschool, Community College, State School, Private Schools



We talked to...



“Grace Hopper”
Community College
Pre-Law
Junior
Los Angeles, CA



“Donald Knuth”
Private College
Business Major
Junior
Bay Area, CA



“Alan Turing”
Highschool Senior
Bay Area, CA



“Ada Lovelace”
Full Time TA + EdTech
Researcher
Portland, OR



“Margaret Hamilton”
Pre-Med & Student-Athlete
Junior
Las Vegas, NV



“Ada Lovelace”



- In-person interview at Coupa Cafe, Voice Memo
- Female (23), Full-Time Teaching Assistant and EdTech/NLP Researcher
- *“Stanford’s TA system is I would say super intense, selective, and kind of a long process. It sucks how some of the most qualified people, like a few of my genius friends, get overlooked just because they don’t fit the tunnel vision of what is considered to be a good tutor. And for the most part, they just do not want to reapply or go through that lengthy process anymore.”*

SAYS

THINKS

"I never thought I would be this invested in AI especially considering that I did not even come into Stanford even considering Computer Science as my major. However, now I am convinced it is the key to completely changing how we teach."

"Honestly, I love when students throw super tough questions at me. I feel like I never forget those moments, and they definitely stand out when I am teaching... in a positive way!"

"Section-leading totally changed my perspective in how I view the other side of being in the classroom. It's genuinely super challenging, and made me realize there's so much room for research and improvement in how we actually teach."

"In a way, it blows my mind that we don't really measure how good tutor explanations are in a standardized manner. It's kind of subjective, and this topic interests me as per my research. I am trying to figure out how to make that a thing."

AI has the potential to revolutionize education, particularly in areas like tutoring and feedback.

Thinks that rigorous onboarding for TAs ensures high quality, but simultaneously excludes other talented individuals who may just not fit in the right box.

There is untapped potential for improving how tutors are evaluated, especially through quantitative feedback mechanisms.

Implementing LLMs and NLP in education can enhance teaching, but human factors like empathy and engagement are nontheless irreplaceable.

"Stanford's TA system is I would say super intense, selective, and kind of a long process. It sucks how some of the most qualified people, like a few of my genius friends, get overlooked just because they don't fit the tunnel vision of what is considered to be a good tutor. And for the most part, they just do not want to resply or go through that lengthy process anymore."

"Teachers who teach the same class/subject for like 7 years often show their teaching skills are stagnant, and they do not improve."

"Talking to students who are struggling is actually way more eye-opening than the ones who get it right away."

"Teaching has forced me to understand material in ways I never would have just by studying it. It's like, you don't really get it until you explain it out loud and you're like wait I kind of understand this so much better."

Traditional tutoring systems can be inefficient and could benefit from AI integration to streamline processes, especially for people who want to practice teaching.

Believes that measuring tutor performance, especially novice tutors, requires more nuanced metrics that include both qualitative and quantitative aspects.

There is a gap in education where personal coaching is lacking, which can hinder the growth of aspiring teachers.

Learning how to teach and communicate with students can lead to an alternative perspective in education that can often lead to self-growth.

"I didn't expect AI to play such a huge role in education, and I believe there is a new, up and running space in the Education Technology field that involves practicing how to teach."

"I mean charisma, energy, EQ, and interpersonal skills are such important factors in teach. Honestly, I prefer someone who is more energetic, more engaging than someone who may be 30% smarter and more familiar with the content and boring/condescending."

"Teaching has forced me to understand material in ways I never would have just by studying it. It's like, you don't really get it until you explain it out loud and you're like wait I kind of understand this so much better."

More research is needed into how AI can complement traditional teaching methods without losing the personal touch.

Effective teaching requires both strong interpersonal skills and the ability to deeply understand the subject matter. Being enthusiastic is equally as important to consider as knowledge.

The onboarding process for TAs should be improved to be more efficient without losing its ability to filter for quality.

"We need to speed up the TA onboarding process. It's way too long and honestly feels kind of pretty biased at times. I was rejected 3 times before actually getting my position."

"It's crazy how there's almost no personal coaching in education. We expect people to just figure it out how to be a tutor and follow a start, but that's not enough."

"Even though AI platforms like ChatGPT go through the whole internet in order to respond to a prompt/question, there is something about in-person help/tutoring that makes me prefer it more and I am more engaged."

Uses challenging student questions as a way to explore new and complex ideas on how to approach teaching as opposed to making her feel bad about her ways.

Empathetic and definitely relates toward students who struggle because she totally understands when she was in their place exactly a few years ago.

Frustrated and confused by some of the inefficiencies in the TA onboarding process, particularly how it can exclude qualified candidates like her friends.

Excited by the possibilities that AI and NLP bring to improving education.

Motivated by the challenge of integrating AI into teaching, as she sees it as a way to drive educational innovation in society.

Takes on additional section-leading roles and extra office hours beyond their required workload.

For the most part, almost always goes off initial lesson plans she prepared prior to section times to tailor and take into account the specific, spontaneous needs of the student.

Analyzes classroom interactions with NLP to find patterns in student behavior, and uses these findings to improve her methods.

Adjusts the pace of her teaching style based on noticing the expressions of quieter students. Makes plenty of assumptions and tries to read the room as much as possible while teaching.

Finds joy and fulfillment in making personal connections with students and improving their learning experiences.

Appreciates and is very thankful for the opportunity to teach as she feels like she herself has grown as a person and learned a lot about herself.

Feels a sense of responsibility to ensure that education is accessible and effective for all students, regardless of background.

Feels validated when students make progress and when feedback helps them improve their teaching methods.

Fine-tunes AI models to align with specific curriculum needs such as measuring quality of math explanation in novice tutors.

Identifies gaps in personal coaching for educators and works to address them through her research.

Encourages students to take on peer-teaching roles during her sections, fostering a collaborative learning environment.

Used her in-person TA sessions as real-life examples for her research at Education Tech lab as they were very applicable.

Redo all the PSETs, Exams, and attend/watch lectures on her own time, even when not required to be able to give her 100% dedication to her students.

Feels like teaching is not a working job, but rather a true fun activity where she can interact with people!

Very confused why people are not given support and resources to become a teacher, and likely thinks this is unfair.

Likely Hopeful that with increased access to free AI integration, more and more people can easily become qualified and great tutors.



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DOES

FEELS

“Ada Lovelace”



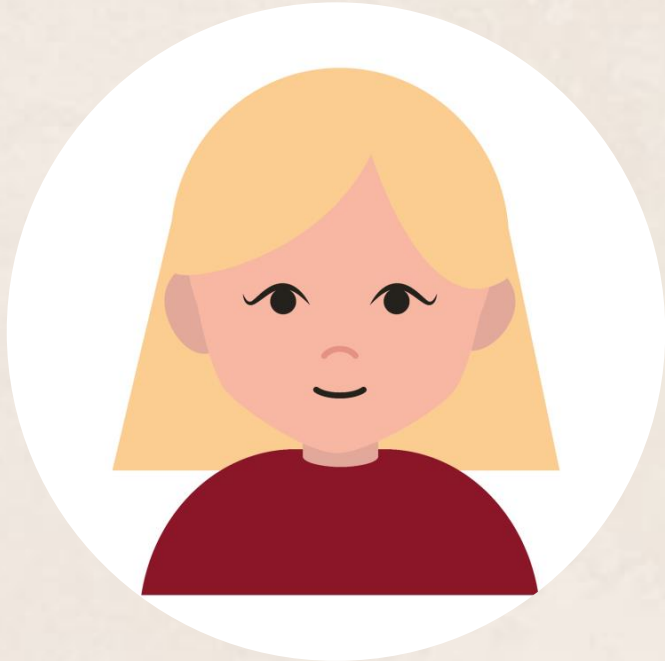
Insights:

- Though comprehensive and does a good job, the process to become a Teaching Assistant at Stanford is very long and lengthy - many interested tutors/TAs end up giving up.
- Very few efficient resources for tutors to learn how to teach well and properly.

Needs:

- Efficient system/unbiased way to hire tutors faster and quickly.
- More accessible educational/evaluators platforms to teach tutors how to be good teachers (AI can potentially be a solution!)

“Margaret Hamilton”



- In-person interview at coffee shop, Voice Memo
- Female (21), Student-Athlete, Pre-Med, Human Biology Major
(Home-Schooled prior to Northwestern)
- *“Sometimes finding help was too hard, or they did not have enough time/space to give me the help I needed especially with my rigid practice schedules. At one point, I remember giving up on an assignment and turned it in unfinished.”*

SAYS

THINKS

"Despite tutoring being encouraged and it is free, I feel like there is still stigma with being seen at office hours all the time. Looks like I do not know the content well, and kind of feel embarrassed to go because of that."

"I train 20 hours a week and our practice times often conflict with office hours. I can't make it to these sessions so I end up having to spend more time as opposed to getting help in a faster way."

"Sometimes finding help was too hard, or they did not have enough time/space to give me the help I needed especially with my rigid practice schedules. At one point, I remember giving up on an assignment and turned it in unfinished."

"Chemistry is such a complex and difficult subject... in a big lecture hall, it's hard to get that one-on-one help that you really need, and many people have struggled with big classes like this."

Thinks about how she can be more efficient with her time that she can better balance her workload and practice schedule.

Am I the only one who feels like I have to constantly play catch-up, or are other students struggling too?

New study habits can I try to make learning more enjoyable and less stressful?

Even though academics can be very challenging, I am very excited to learn more about biology and psychology and continue expanding my horizons.

"I wish athletes had more accessible resources to work around their very busy schedules. They offer tutoring specialized for athletes, but these are all group sessions, and the TA for the most part do not know what they are doing at all."

"I know we have free tutoring services on campus, but they take so long to schedule. Some of these places don't start offering tutoring until week 3 and that's when we already have midterms. Then what?"

"There needs to be more accessibility and information about these tutoring places on campus. In my first year, most of the frosh didn't even know they existed."

"You are not the same as everyone else on this campus. It's about taking care of yourself and putting your needs first above all."

Am I falling behind my peers because of how much time I am dedicating to something else while they are using that time toward studying for their classes?

Balancing sports and academics is getting harder each year despite learning from my mistakes. I need a better system in order for this to not affect my grades.

Is this new coach's intensity really helping me improve, or is it just adding more pressure to my already full plate?

I know I need personalized help, but how can I get it when almost everything is geared toward group learning?

"I wish there was more personalized one-on-one tutoring. No matter how many review sessions I go to, sometimes I wish someone could just understand what I need help with and explain accordingly."

"I wish there was more flexibility in terms of figuring out the schedule for tutoring."

"It's all just a journey of finding what works best for you and what doesn't, and it sucks that I kind of had to find out the hard way."

"It's hard when you feel like you're a little behind and you're constantly playing catch-up, whether studying by yourself or needing help from someone else."

"I very much value my upperclassmen friends and teammates for their guidance. I learned a lot over the past half of college, and am ready to try out these new ways this year."

20 hours a week of practice! That's an insane time commitment, especially

Switched her major from Biology, to Psychology, to Human Biology now on the Pre-Med Track.

Adapting to a new training with Higher Demands and completely new training schedule → completely new start to Junior Year

Exhausted and sometimes facing burn out from juggling sports, academics, and finding enough time for rest and studying.

Often feels embarrassed to go to office hours because does not want to be judged by her peers.

Sometimes frustrated that her strict schedule prevents her from receiving the help she needs, and does not have a quick alternative.

Optimistic that with the lessons that she has learned in the past, she can have a stronger academic performance this upcoming year.

Stays up till 3am catching up on work, and still has to wake up 3 hours later at 6 in the morning for practice. Pulled several all-nighters.

Grateful for the support system and peers she has met and cultivated on campus.

Confident going into this new year because she has learned from her mistakes and knows exactly what she needs academically and athletics wise moving forward.

Overwhelmed having to balance academics and athletics, especially when traveling for meets and competitions.

Switching schools almost 8 times prior to coming to Northwestern (potentially impacted how she adjusted to college life especially learning that homeschool was her most recent education before moving to Illinois)

Relied heavily on caffeine and energy drinks to stay awake during classes and remain alert through the day.

Sometimes may feel insecure about maybe falling behind in her classes and other classmates sometimes judging her and her ways.

Nostalgic seeing how far she has come from being home-schooled to now being able to succeed in very challenging Pre-med classes.

Motivated to push herself harder with a new coach and in her new coursework.

Anxious about keeping up with her difficult classes, planning to apply to med school and take the MCAT while maintaining her athletic and other extracurricular commitments.

Use meditation and mindfulness apps in order to help cope with stress and feelings of being overwhelmed, stressed, anxious, etc.

Integrated technology, time-management apps to help with studying. ChatGPT account offers immediate answers to her urging questions while doing Problem Sets.

Organized study groups consisting of athletes and non-athletes for difficult courses → learned the most from discussing and talking content over with her peers.

Started meal-prepping to save time.

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mpaturu

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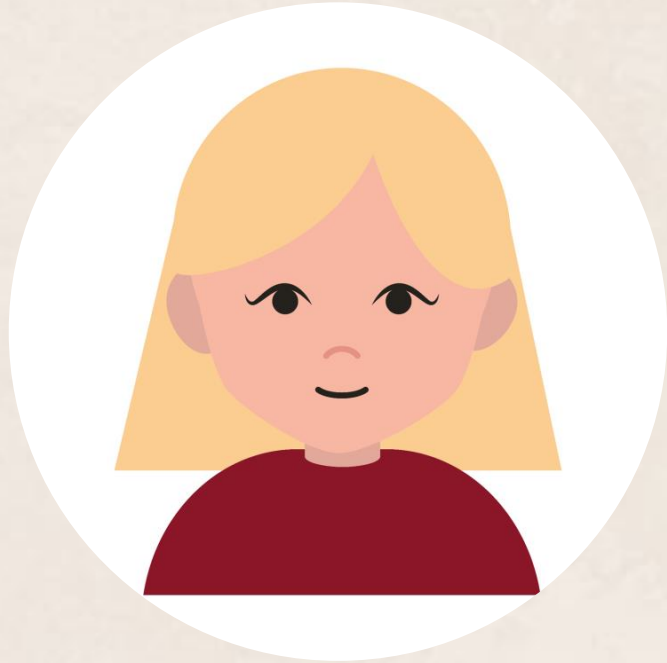
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mpaturu

DOES

FEELS

“Margaret Hamilton”



Insights:

- Group tutoring and generalized support systems often don't meet his specific needs as a student-athlete → feelings of isolation in both academics and sports.
- Rigid practice schedule prevents getting help → hopelessness

Needs:

- More personalized academic support tailored to student-athletes, such as flexible one-on-one tutoring or mentoring programs that accommodate tight practice schedules.
- Time-efficient, structured system to help him better integrate academic and athletic responsibilities.

“Grace Hopper”



- Zoom interview
- Female College Student, 20
- Pre-law
- Previously attended UCSC, community college, USC
- *“I’m concerned if the TAs can actually help me with my classes given how many students there are in each class.”*

"It seems like even the TA hasn't taken the class"

"I prefer help from other students the most"

"Last minute help is impossible to find"

"The TAs don't have a deep understanding of whats going on in class"

"It takes a lot of effort to find help at UCSC"

Getting help takes so much effort, and sometimes it feels like I'm wasting my time

I should just push through on my own instead of trusting the system to help me.

The TA isn't going to be useful when they haven't even taken this class before

I'll probably get better help from other students who've taken the class before

"I've emailed TAs multiple time before and gotten no response"

"The TAs are not very helpful for exams, they only know about the general subject"

"UCSC didn't hold my hand as much compared to USC now"

"There's a lot of smart low income students in community college who are looking to make money"

"Sometimes I just give up and figure it out myself"

"Some students need a lot of help, and there is nowhere near enough time for them with the TAs"

"I would definitely use an app to find other students who have taken the class before"

Has never reached out for help at El Camino Community College

Never utilized tutoring services at school outside of TAs

Uses AI for assignments despite anti-AI usage policies

Nervous to approach professors due to fear of being perceived as incapable

Asks students that are considered and known to be "smart" for help

Only felt the need to get help for STEM subjects

Hesitates to walk into tutoring centers and trusting someone to actually be able to help

SAYS



THINKS

FEELS

DOES

Doesn't bother approaching professor after class due to long line of students

Forgets that assistance for classes other than TAs even exists in the first place

Reached out repeatedly for course help and received no proper assistance

Always has to ask TAs to elaborate during one on one sessions

What's the point of going to tutoring or office hours when no one understands what I need?

I feel more comfortable asking for help from students who are known to be 'smart.'

Anxious about appearing incapable in front of professors or peers when asking for assistance

Anxious about the prospect of seeking help, especially if it means interacting with professors or waiting in long lines.

Feels alienated from school community and academic support structures

Why bother seeking help if the TA doesn't even understand the material better than I do

Why aren't there more reliable TAs that have actually taken the course?

Reaching out for support makes me feel like I'm admitting I can't handle things.

Frustrated by the lack of knowledgeable support, especially when TAs haven't taken the class.

Disconnected from the academic support system, feeling that it doesn't cater to their needs effectively.

Distrustful of TA and tutoring services due to previous negative experiences.

Feels like it feels awkward reaching out for help when taking online classes and not knowing professor or TAs

I don't think the effort of reaching out for support will be worth it

It's easier to just figure it out on my own than to rely on the TA or professors.

I need help, but asking for it feels like I'm losing control over the situation.

Unmotivated to attend office hours or tutoring centers due to prior unhelpful experiences.

Insecure about their academic abilities but hesitant to show vulnerability by seeking help.

Discouraged by the lack of quick, last-minute help, leaving them feeling stranded when deadlines approach.

Disappointed in the quality of support from TAs, making it harder to feel confident during exam prep

What's the point of going to tutoring or office hours when no one understands what I need?

"There's a lot of smart low income students in community college who are looking to make money"

"I prefer help from other students the most"

Discouraged by the lack of quick, last-minute help, leaving them feeling stranded when deadlines approach.

“Grace Hopper”



Insights:

- Unsatisfied with quality of TA's and their qualifications to assist with course material
- Hard to get longer one on one sessions given so many students at bigger schools/institutions.

Needs:

- An way to easy access qualified individuals who are capable of helping students and understand course material
- Faster, and more efficient way to be able to help more students in shorter periods of time.
- Easier way to students to make money.

“Donald Knuth”



- In Person Interview in Dorm, Voice Memo
- Male, Junior (20) at Santa Clara University
- Accounting Major
- *“I’m not really one to utilize them [academic support structures]. I just try to figure it out on my own.”*

"Regularly, or even on average, I see posts getting 1500 to 2500 responses on polls"

"I think we have a TA, I'm not really sure"

"Fizz is a place for people to get attention and post not productive content"

"STEM students reach out more often for academic support"

"I dont think that [teaching team size] is really a problem because our classes are not that big"

"If I can't figure this out on my own, then I will not do well on teh exam"

Believes that students don't necessarily need office hours if they can get support through other avenues

Possibly skeptical of putting academic trust in peers or group work, preferring self-reliance or professional help.

Thinks that Fizz as a social distraction and not a useful platform for academic support, especially compared to other more formal resources.

Thinks that seeking help right before the exam may be a waste of time

"Professors run office hours. We rarely interact with TAs and if we do its when they run a review session"

"I think that the academic content gets lost in the funny content on Fizz."

"I don't really go to office hours, I think that I've only ever been to one"

"Fizz kind of became twitter. People were just posting hot takes on there all the time just for attention. A lot of it was rage-bait takes"

"Usually they [professors] will be willing to spend 20 or 30 minutes with you"

This academic environment does not fit my learning well

May think that non-STEM majors should not reach out for support

Does not trust that the school provided resources are worth his time

Class performance is not important for their future goals

Thinks that the use of AI could improve how information is organized and presented in the classroom, seeing potential benefits if more integrated into the learning environment.

"The people who ask real questions (referring to questions on fizz), you kind of just scroll past them"

"I'm not really one to utilize them [academic support] structures. I just try to figure it out on my own"

"I dont think I've ever had a class over like 20 people"

"You could go to the accounting department head, but that is not really their job" (referring to getting support)

Thinks that he will learn better if he is forced to work through content alone

This academic structure is not designed for me

Feels like office hours is not a good use of their time

May feel a sense of skepticism toward other students' abilities, especially those they consider less capable

"There were accounting tutors that got recommended by the professors"

Uses resources to determine the difficulty of classes (similar to Carta).

Procrastinates on assignments until the last minute, then seeks external help when under pressure.

Has a lack of trust for students who do not seem proficient in a given topic.

Doesn't feel a need to seek additional support because they believe they are in a less demanding environment (non-STEM).

May feel anxious about reaching out for support

Feels that it is difficult to admit how they need help

Feels that Fizz is a platform exclusively for fun content

Feels a reluctance to collaborate

Might experience frustration or disinterest in group work, preferring to work independently or relying on professors over peers.

He hasn't ever been to office hours and has rarely reached out for support.

Participates on group projects only when required to

Does not reach out to student services or advisors.

Reaches out to older students for advice about classes, teachers, and scheduling.

Does not trust fellow students when forced to do group work.

Has not found the need for academic support.

Avoids group work due to a lack of trust in peers, preferring to work on their own or with trusted resources.

Hasn't been to office hours and has rarely reached out for support.

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SAYS THINKS



FEELS

"I don't really go to office hours, I think that I've only ever been to one"
Jonah

Avoids group work due to a lack of trust in peers, preferring to work on their own or with trusted resources.
Jonah

If I can't figure this out on my own, then I will not do well on the exam
Jonah

“Donald Knuth”



Insights:

- Does not reach out for academic support due to challenges using the existing systems.
- Small classes without TAs means that it is difficult to receive learning aid.

Needs:

- A streamlined way to receive educational assistance when the Professor is not available
- Structured Advice from older students

“Alan Turing”



- Zoom Interview
- Male, Senior (18) at a local private high school
- Aspiring International Policy major
- *“But I’d say with the presence of AI, I’ve seen a lot fewer kids go to office hours just as a general trend.”*

SAYS

"And so I think it's important that both students and teachers know how to use it, understand it, and that it's not seen as a total negative, as long as it's used properly and students are still exercising their own minds and thinking critically."

"I'd say [my number one resource] is probably my teachers. Just being able to talk with them at office hours is the best way for me personally to get a better understanding of, you know, the content and the material of the class."

Pays some attention to the AI tools used by his classmates for specific purposes, like Photomath for math, but avoids using them for the most part

Frequently attends office hours, and due to lack of participants, can usually spend as much time with teachers as he needs

Uses the library, physical media, and the librarians for research purposes

"But I'd say with the presence of AI, I've seen a lot fewer kids go to office hours just as a general trend."

"Obviously, there is a level of fact-checking necessary to make sure you're not getting [...] biased or BS information."

"And, also, other sites, like, I forgot the name of Google's Gemini? [...] Yeah, Gemini. So people have used that too. And, yeah, I mean, people use those for learning resources."

Erred on the side of caution when using ChatGPT in its early days, so as to avoid being honor-coded

Doesn't use Photomath because it gives answers and, if paid for, the steps to get to the answer, because he feels it takes away from his ability to learn

Reaches out to upperclassmen who have taken a class he's struggling with when he needs help, because they are most likely to understand his POV

At the end of the day, AI is a new technological resource, and it's gonna be part of our lives for the foreseeable future."

"Teachers are not necessarily encouraging the use of [AI], but they are permitting it to certain extents as long as the ideas generated are still [those] of the students."

"So I'd say, unless there's a big test coming up, people don't really use office hours until 2, 3 days before."

When struggling beyond help with teachers, goes to an external tutoring service (knows content but very expensive)

Uses AI in AP classes for outline generation, as permitted by teachers

Seeks out personal time with teachers outside of office hours

"And then there's also stuff like I don't know if this counts, but Photomath, for example, which, you know, does work for you."

"...until it comes to the test, obviously, but they can get through all the homeworks, all the projects and stuff pretty easily."

"...in the sense that people think that they have stuff down because they can kind of cheat their way through a class or kind of, you know, BS it, I guess."



Thinks that if his classmates used office hours further in advance of tests, teachers would respond to the demand with more office hours times

School-provided resources like office hours weren't sufficient for students, which led many to seek out more help from AI. This created a drop in demand for those school resources, so less are now offered.

Frustrated with the lack of resources at school as a result of lowered demand

Fortunate that lack of demand for office hours means that he gets more personal time with teachers

People who've taken the class you're struggling in are generally a better source of help than the internet

Places value in working through problems on his own, then trying in-person sources for guidance, so as to not be given the answer

Students could make more money tutoring people for classes they've taken

Proud of leveraging AI when needed without overusing it

Proud of his proactivity in seeking out in-person help from experienced people

Underserved by the lack of a TA or student tutor network on campus

Some students got into high school during quarantine and didn't build the habits of asking for help in office hours early on

AI serves a crutch that helps people feel as if they're learning, but their lack of understanding of the content is shown come test time.

Wishes it were easier to connect with people who are familiar with the course content he's struggling with.

Disadvantaged by lack of access to teachers when tests are coming up

Uncertain about how AI progress will change educational access in the future

Better prepared than most of his classmates thanks to his effort

People got comfortable using ChatGPT and other AIs, and decided they'd rather circumvent the restrictions set around them than follow the rules and learn for themselves

Doesn't trust AI to reliably provide correct answers to homework questions on its own.

Many high schoolers today undervalue the help that can be found from teachers and students who've taken the class

Distrusting of AI due to its tendency to hallucinate and misinterpret information

Feels more engaged in the learning process than his classmates

Concerned about the shortcuts his peers take via AI instead of actually learning the content

THINKS

AI serves a crutch that helps people feel as if they're learning, but their lack of understanding of the content is shown come test time.

alexians

"So I'd say, [...] unless there's a big test coming up, people don't really use office hours until, like, 2, 3 days before."

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DOES

FEELS

“Alan Turing”



Insights:

- Students are overly reliant on AI tools which are not a real replacement for TA or teacher help (using them as a crutch).
- The lack of a network of TAs or student tutors restricts options for finding help.

Needs:

- Improved communication channels between students, teachers, staff, etc.
- Academic help from people with experience with the coursework when teachers are unavailable

Extreme Users

Ada Lovelace
(TA & EdTech Researcher)



Margaret Hamilton
(Student-Athlete + Pre-Med)



What we learned

Students feel that the **lack of quality TAs** and **over-generalization of TA** expertise makes getting help unappealing and not worthwhile.

Students prefer to work with and learn from other students who have **experience in the coursework** and can openly discuss course content.

There is a **lack of office hour flexibility** to satisfy the time demands, schedule, and quantity of students that are in need of **personalized** academic support.

The TA **recruiting process is overly tedious** while also **lacking proper training** on the job, leading to **low-impact TAs** while also **excluding a large group** of potential candidates.

Next Steps

More Interviews

Collect more data on the same subject from a broader range of people (teachers, professors, etc.)

Narrowing Down

Specify Problem Domain within Education Technology (video tutorials, study tools, tutoring, AI-powered tools)

Combine to Create a Point of View

Find Patterns and Inconsistencies Across Findings + Needs

Explore Innovation Potential

Explore new solutions and technologies to address unmet needs and challenge current systems & & HMWs





**Thank
you!**