

# AI Tools in Education - Results From a Student Survey and Discussion With Experts

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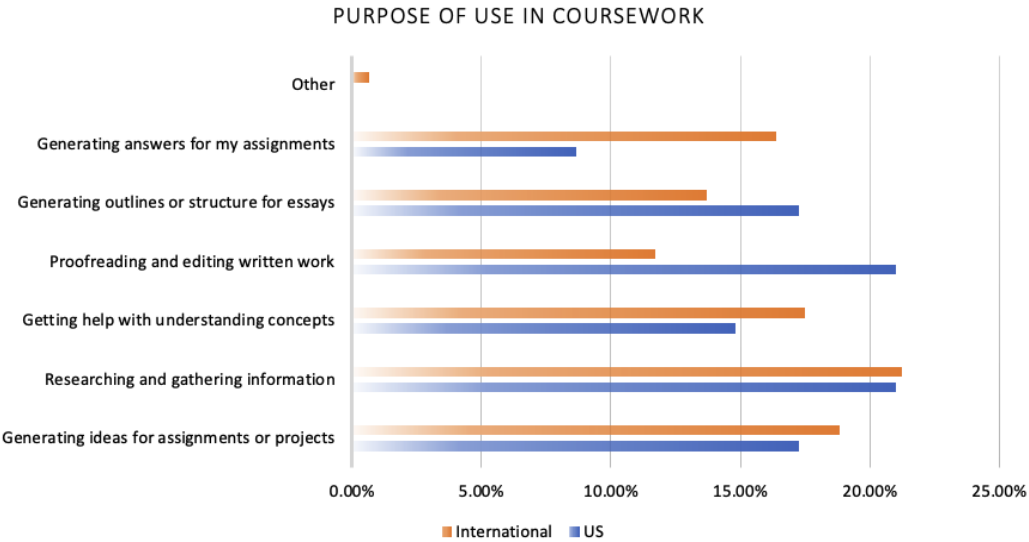
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In the summer of 2023, I conducted a survey of high school and college students across the US and internationally, and conducted in-depth interviews with six experts on AI in education across the world. This report summarizes my findings from the survey and expert views to inform the opinion on how policies for AI tools usage in schools could be approached.

At the start of 2023, the arrival of ChatGPT, OpenAI’s large language model, kicked off a frenzy in generative AI space that continues to this day. The capabilities of ChatGPT, and the crop of large language models and other generative AI tools, took the world by surprise and led to shake-ups in many sectors — including education. As already-released tools get more powerful, and new tools get released seemingly daily, educators and students have realized that this development is going to change the way we learn. However, the key to understanding how this will change our classrooms, and more importantly, how can these tools be leveraged as a force for progress in learning, is to understand how the students of today use these tools. Kashyap Kompella, CEO of RPA2AI warns, the biggest threat is that AI “technologies are coming faster than we’re adopting regulation,” which we must start working towards, especially in the case of education. Therefore, I conducted a survey across 350 high school and university students, across the United States and internationally.

Base usage information gives us a key finding right off the bat: within the US, 55% of respondents said they didn’t use AI tools like ChatGPT for classwork, while internationally, 40% of respondents said they didn’t use it. While going from nothing to half of the surveyed students in about 9 months is undeniably a rapid advance, the tool is yet to achieve ubiquity among students for a wide-ranging set of reasons. Globally, researching and gathering information is still the most prevalent use of AI tools like ChatGPT in schools (21% in the US and internationally), with other common use cases including proofreading or editing work, and generating ideas.

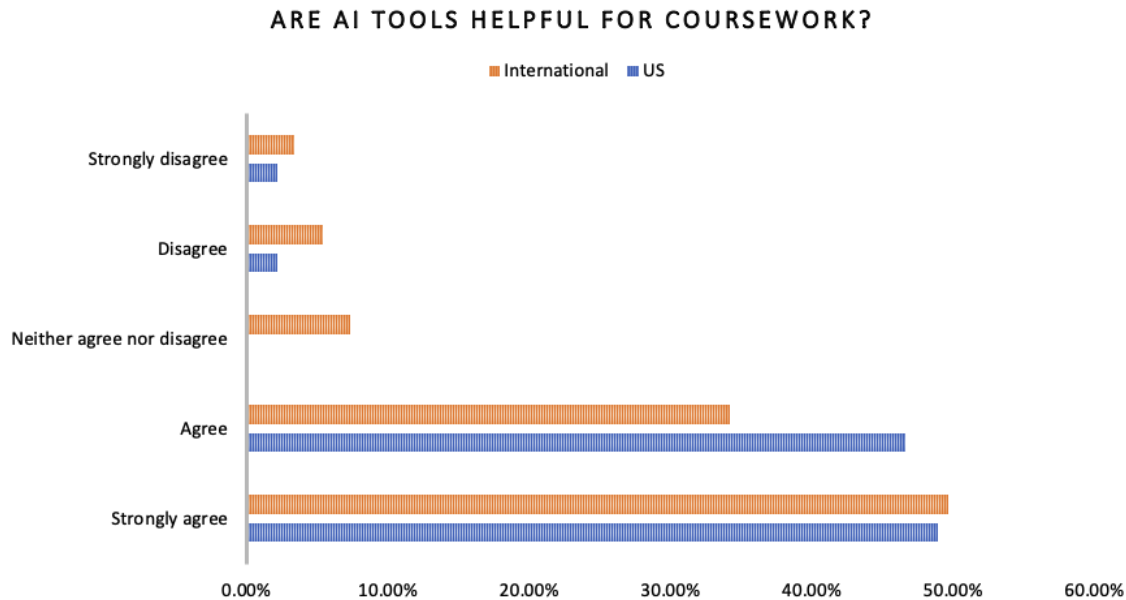


In the US, the most common subject for its use was social studies classes (24% of respondents), while internationally, science was the most common subject (22%). Encouragingly, only 9% of respondents in the US and 14% of respondents internationally who used AI tools like ChatGPT used it to blanket generate ideas, a common fear among educators. However, given the propensity of LLMs to hallucinate information, a key focus point will likely be educating students about its limits in researching topics (although this is a field seeing rapid development as more LLMs gain the ability to search the internet and cite their sources). Emily Gonzalez, a PhD student of Educational Psychology at USC's Rossier School of Education highlights the "need to rethink the way in which we're engaging youth with assessments, where they don't feel like they need to cheat," in order to adapt to the rise of AI in classrooms.

And educational institutions around the world have been quick to respond and adapt. In the US, 58% of respondents reported that their school or university had published a policy on AI usage, and internationally, 51% of students reported their institution having an AI policy. A significant number of these policies have caused students to not use AI tools like ChatGPT for their coursework, either directly or indirectly; out of the respondents who indicated they don't use AI tools like ChatGPT for their coursework, 26% in the US and 22% internationally said that this was because of institutional policy. While every institution is different, and should design their policy to suit their needs, the general thinking of educators has shifted since the early days of these tools being available. The consensus is that constructive and collaborative policy "to apply the prototyping mindset and assimilate AI tools in the classroom as was done with calculators and search engines in the past," as Professor Josh Brake of Harvey Mudd recommends, and allow students to use these tools responsibly, is the correct way to go for institutions.

After all, students seem unlikely to give up AI tools like ChatGPT anytime soon. When asked whether AI tools like ChatGPT are helpful for their coursework, 49% of students in the US strongly agreed and 47% simply agreed, with the numbers being similar internationally (50% and 34%). Additionally, respondents see these tools as here to stay; when asked whether they foresee tools like ChatGPT playing a significant role in education in the future, 62% of respondents in the US and 50% internationally said "Definitely", while 33% in the US and 30% internationally said "Probably". This indicates that attempting to enforce a heavy-handed policy

to ban the usage of AI in schools won't have the intended effect, given the utility it has proven to students, especially in many areas which cannot be constituted as cheating (such as research). The University of Kansas' Professor James Basham pointed out that "some have suggested shutting down AI developments for a period of time, but is that feasible? Probably not at this point."



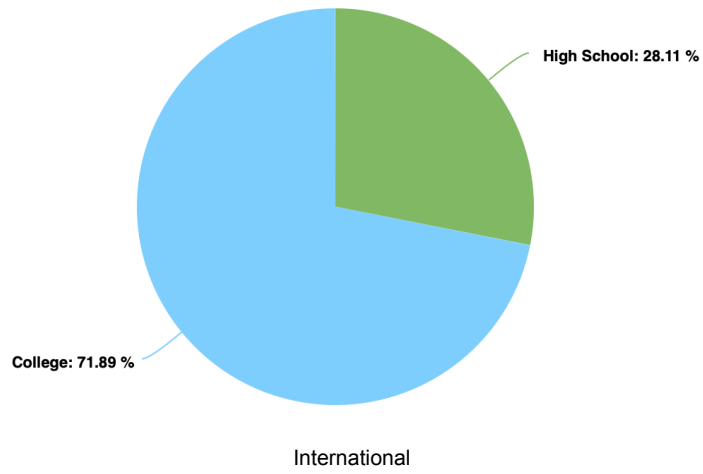
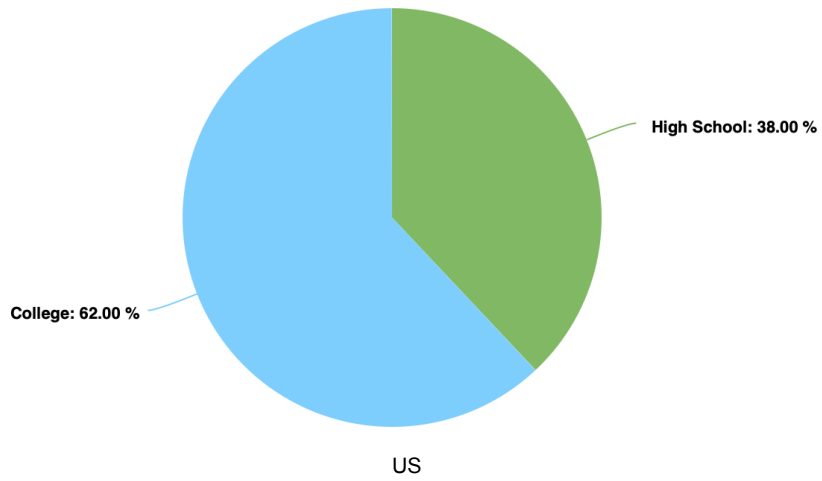
Of course, that doesn't mean all students are sold. Among respondents who indicated they do use AI tools like ChatGPT for their coursework, the primary concern is accuracy (30% both in the US and internationally), with other concerns including privacy concerns and concerns of violating the rules of their institution. Among respondents who indicated they don't use AI tools for their coursework, the most common barriers were lack of awareness about them (27% US, 22% internationally), mistrust (25% US, 21% internationally), and institutional policies against them. Additionally, access to these tools is a more significant barrier internationally (19%) than in the US (13%). Eirik Berre, the cofounder of Norway based Curipod, reminds us that "one of the reasons we don't go down that road [of AI in education] yet is that we want the teacher to have a full overview of what each student is learning," another aspect that could cause disparities in the learning experiences of students. These results paint a picture of why usage may not be as widespread as thought, and indicate that AI tools still have a way to go in terms

of accuracy, privacy, access and even knowledge about them before they achieve ubiquity in schools and universities.

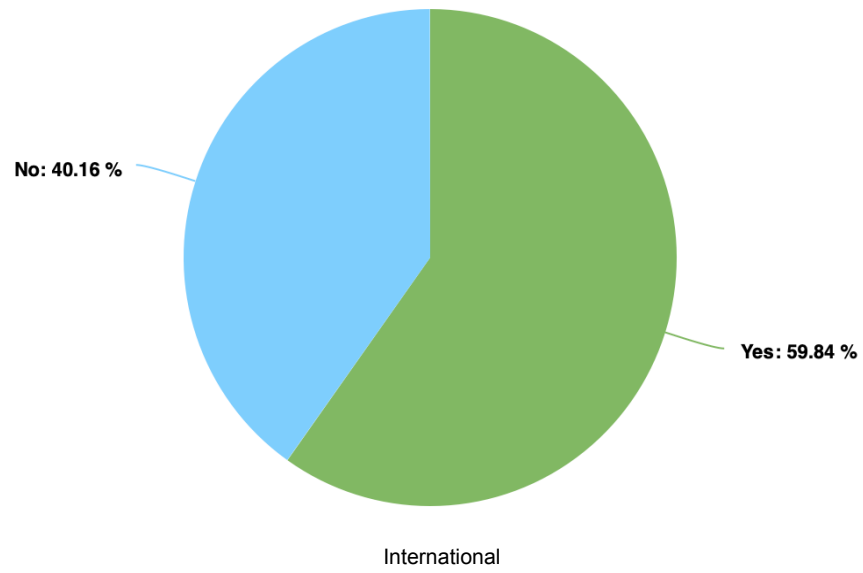
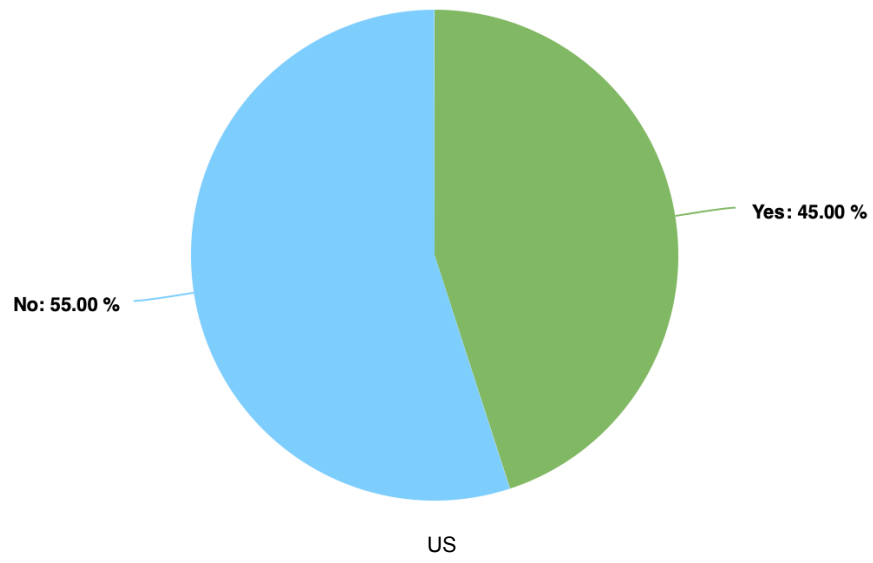
The goal of this research is to provide a guide to educators on how and why students today use tools like ChatGPT, and to use this information to help with the creation of informed policy. As education encounters a revelation similar to calculators for math classes, but for the entire gamut of subjects, it is critical for students and educators to understand each other's concerns and hopes in order to achieve progress in the most important aspect: improving the learning of the generations of today and the future.

# Appendix: Survey Results

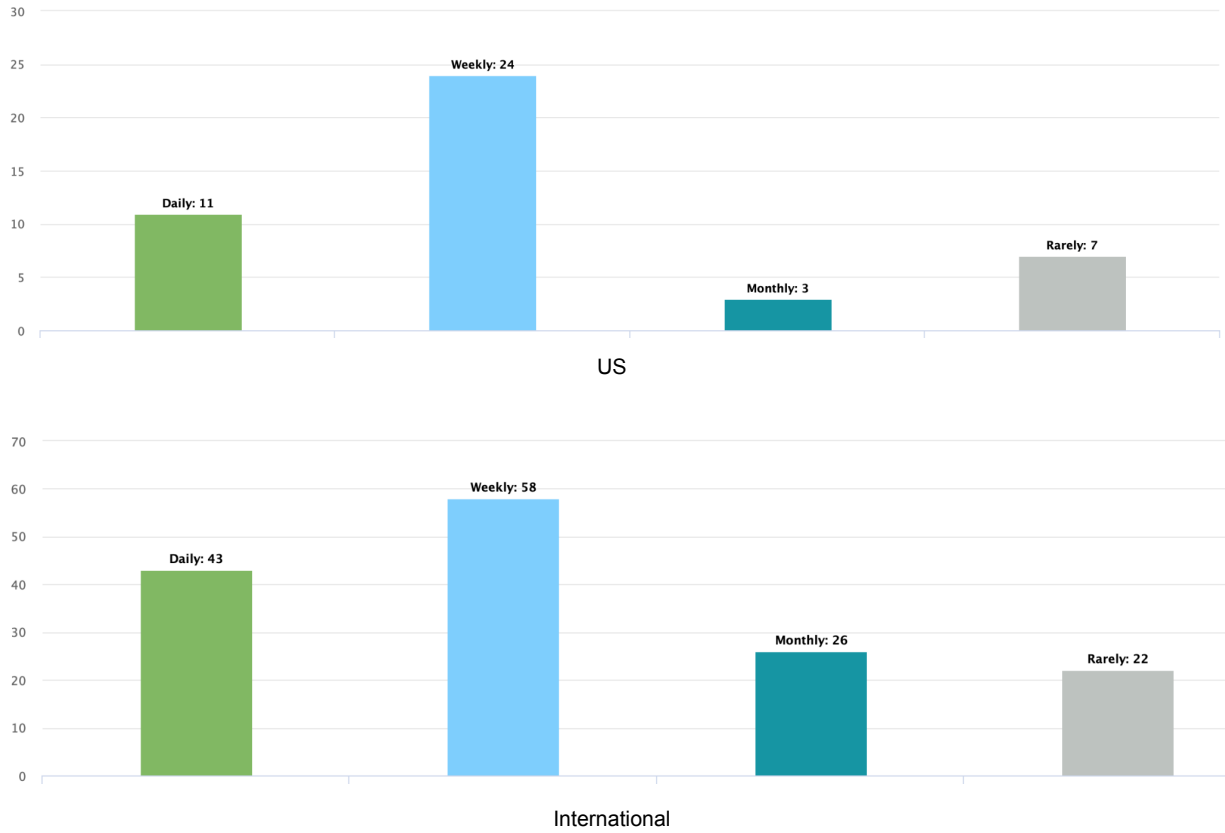
Q1. Are you in High School or College?



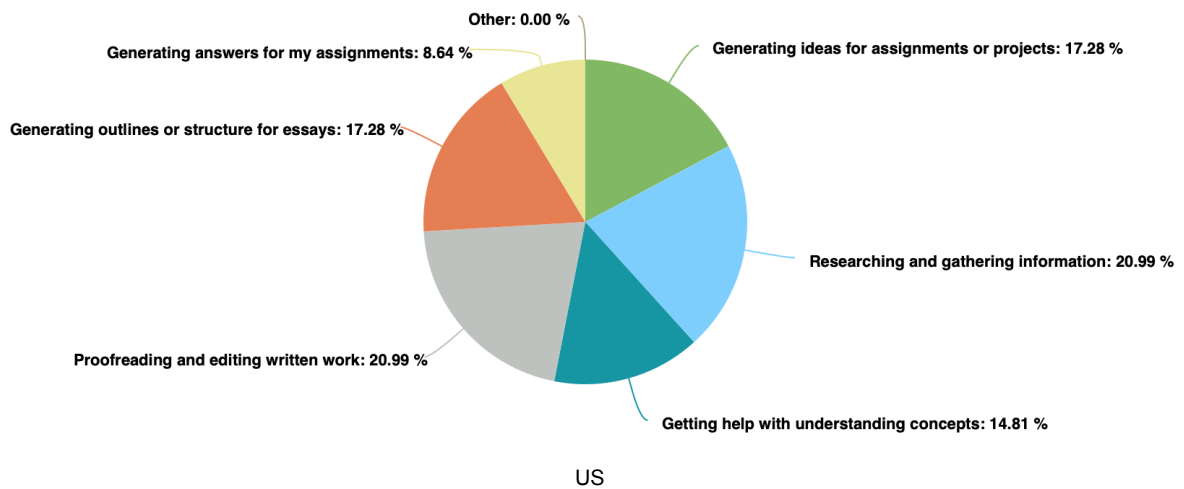
Q2. Do you use AI tools like ChatGPT for your coursework?



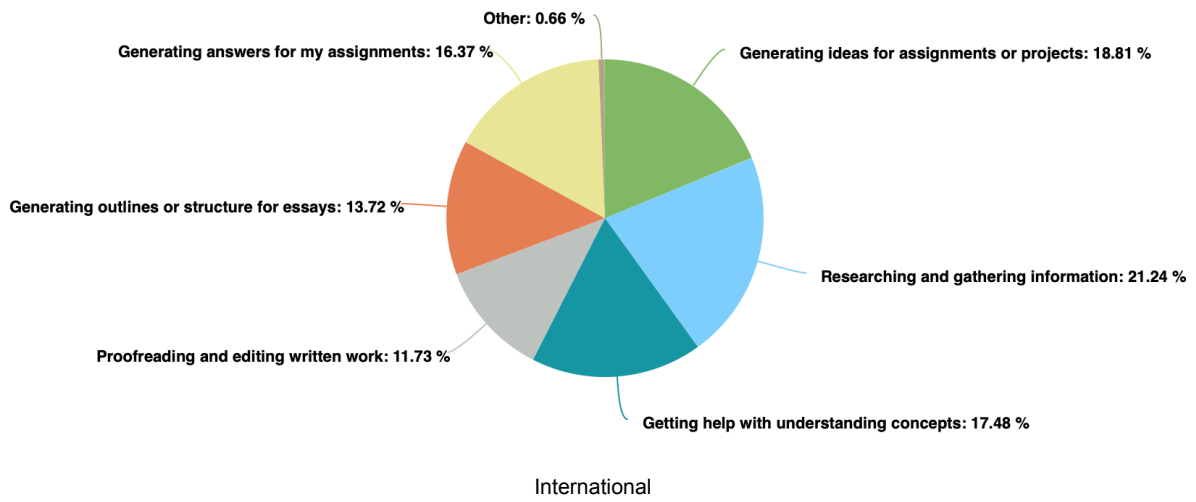
### Q3. How often do you use AI tools like ChatGPT for your coursework?



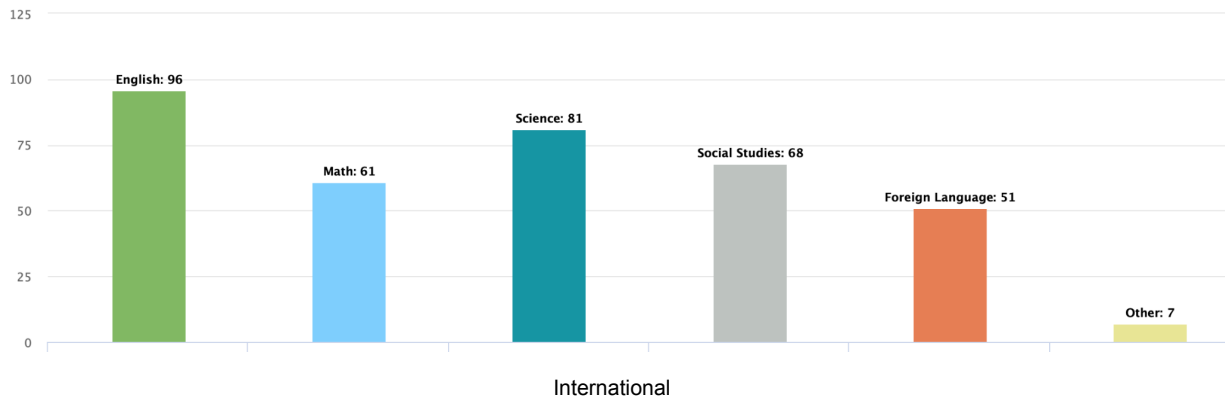
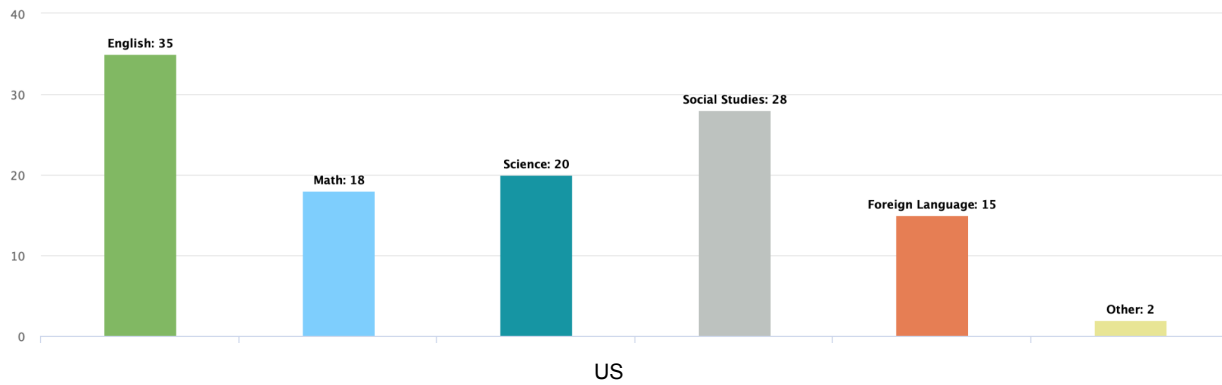
### Q4. For what purposes do you use AI tools like ChatGPT for your coursework?



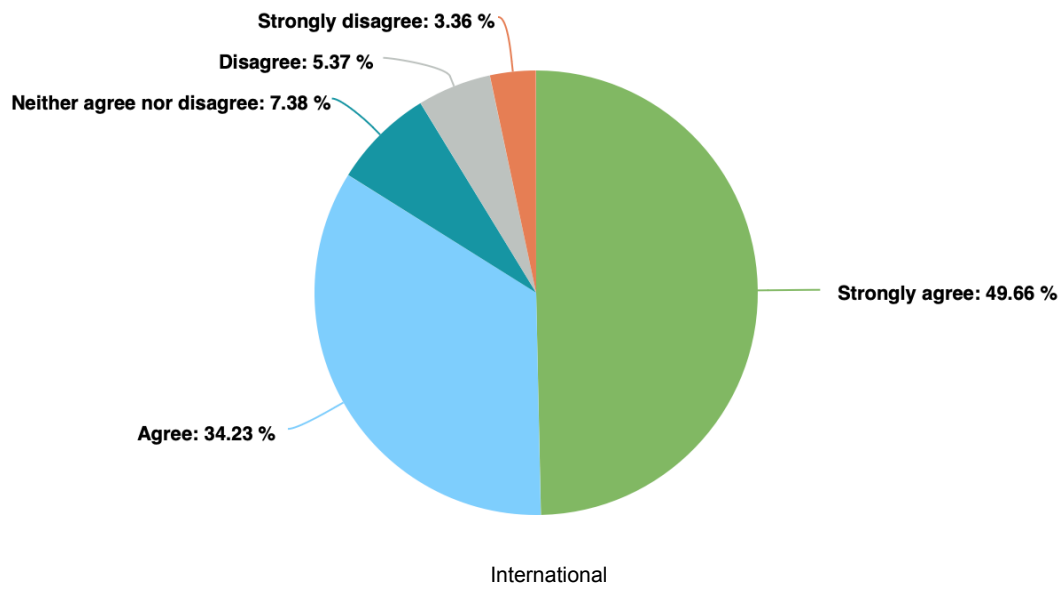
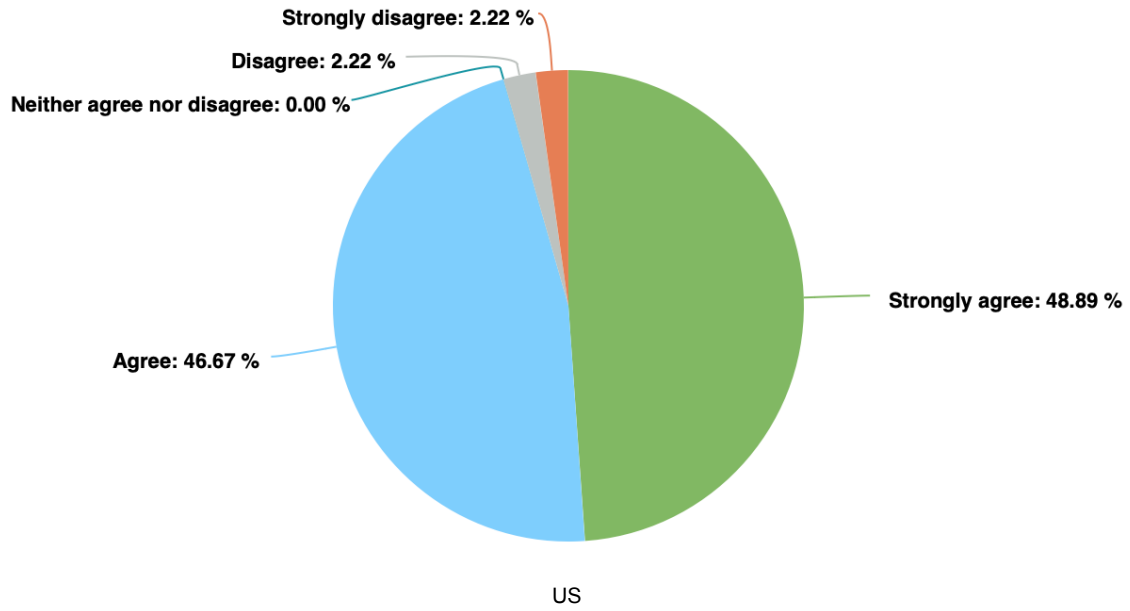




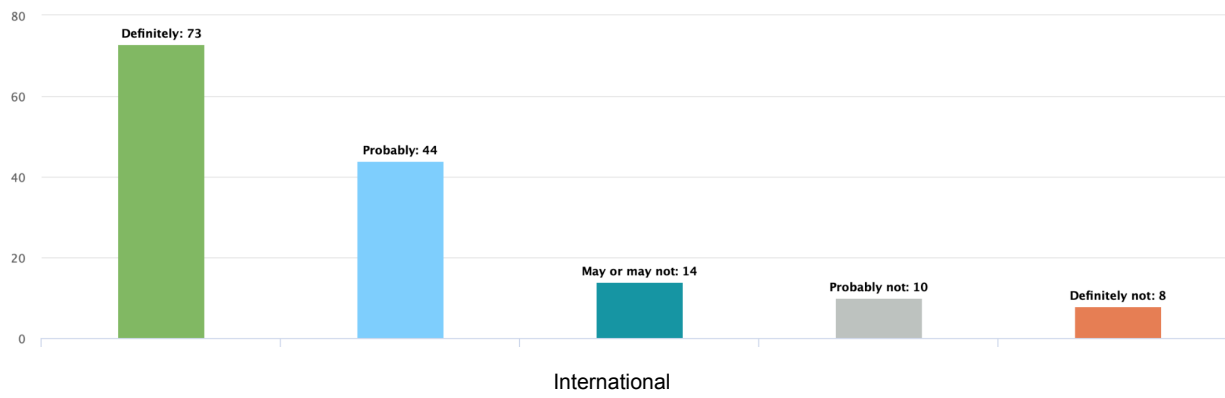
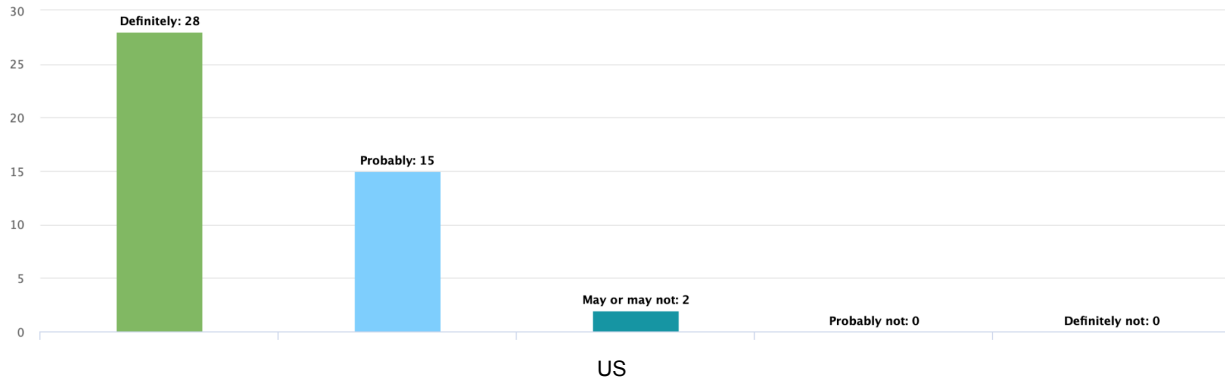
Q5. Which subjects do you use AI tools like ChatGPT for?



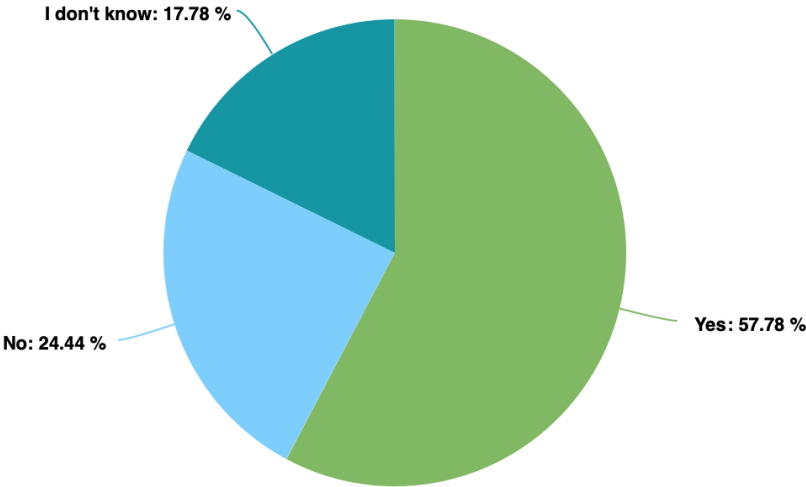
Q6. To what extent do you agree that AI tools like ChatGPT are helpful for coursework?



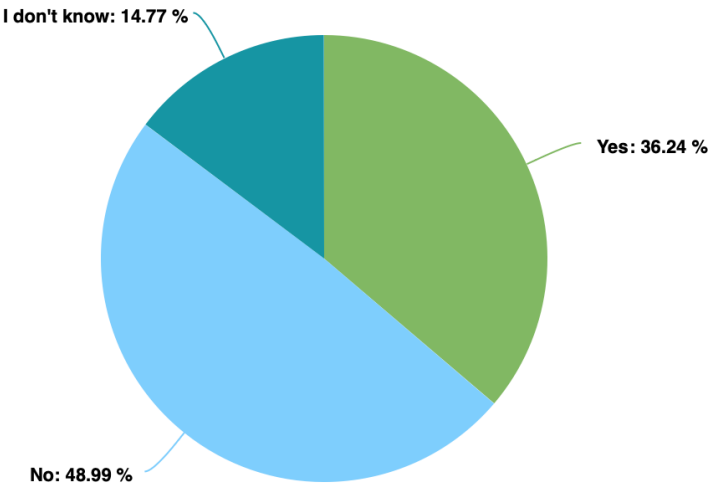
### Q7. Will AI tools like ChatGPT play a significant role in future academic settings?



Q8. Has your institution published a policy for use of AI tools for coursework?

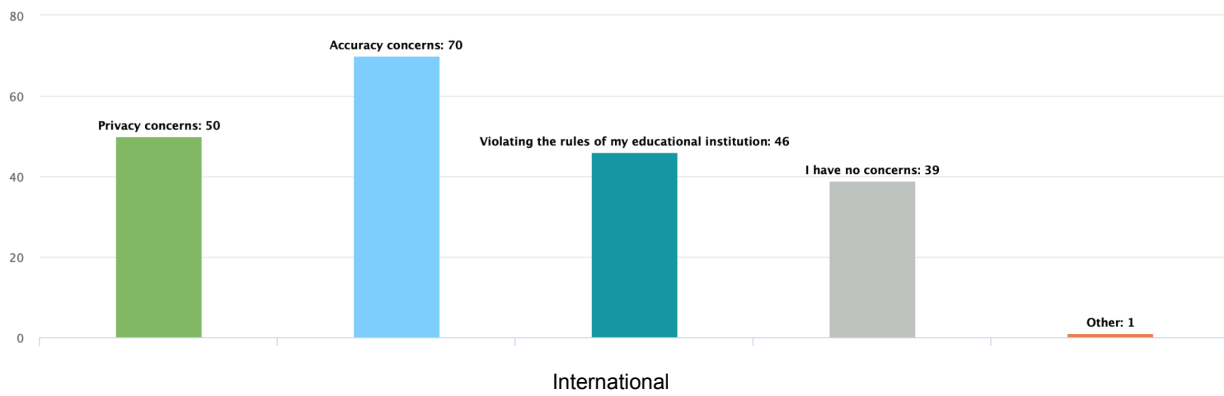
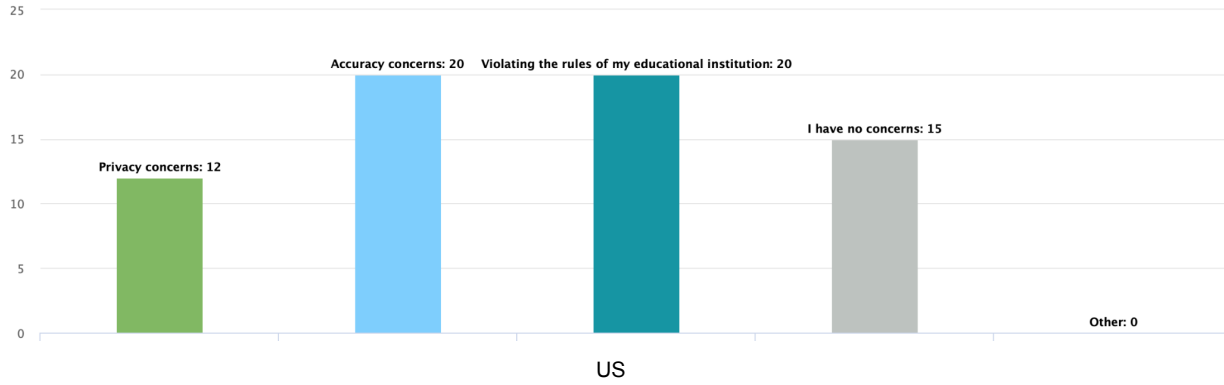


US

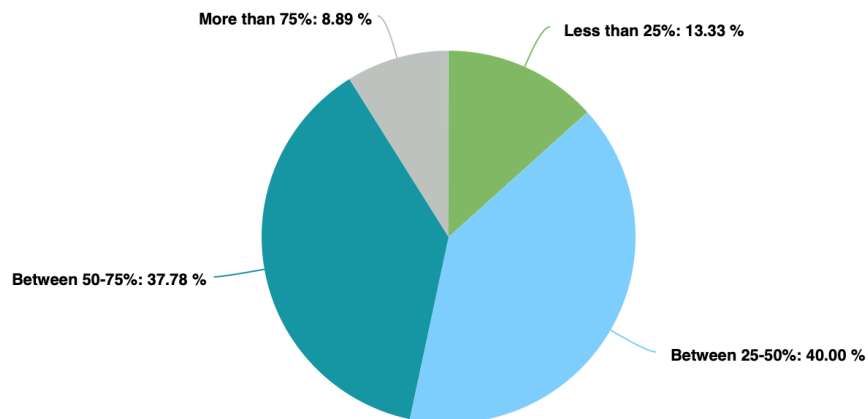


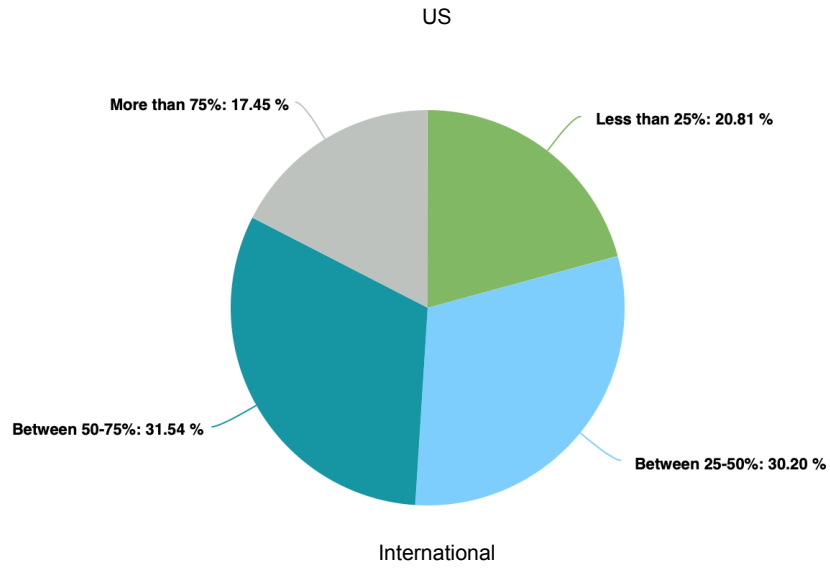
International

### Q9. What concerns do you have with using AI tools like chatGPT?



### Q10. How many of your friends do you think are using AI tools for coursework?





Q11. If you do not use AI tools for coursework, why not?

