

Survey on Undergraduate Student Use of Generative AI: Implications for Information Literacy in Academic Libraries

Megan Margino Marchese and Andrew Marchese*

In 2024, 250 undergraduate students from a variety of majors completed an anonymous survey about their experiences using generative artificial intelligence (GenAI). Survey findings provide details on how students are using GenAI for college coursework, students' views of acceptable GenAI uses for assignments, and their opinions on GenAI and plagiarism. Results highlight a wide range of student perspectives, underscoring the need for greater foundational knowledge of GenAI among students. Data from this survey also reveals connections between AI literacy and information literacy through the concepts of evaluating information and using information ethically.

The Association of College and Research Libraries (ACRL) (2016) describes academic librarians' responsibilities to include helping students navigate a "dynamic and often uncertain information ecosystem" (p. 2). The rapidly evolving presence of generative artificial intelligence (GenAI) has presented such uncertainty throughout higher education. Seen as a technological development as significant as the creation of the internet, GenAI has the potential to dramatically change how students access information (Mollman, 2023). While GenAI tools are constantly evolving, many currently do not provide information context, such as authorship, sources, and publication dates. In the absence of these details, users would have difficulty fulfilling key competencies of information literacy, including reflectively discovering information and understanding how information is produced and valued (ACRL, 2016, p. 3).

While recent research explains the benefits and pitfalls of GenAI in higher education, there are limited details on how undergraduate students across a range of academic disciplines are using GenAI, including: (1) students' use of GenAI throughout the writing process; (2) students' opinions on ethical use of GenAI and its connection to plagiarism; and (3) the relationship between students' current GenAI usage to information literacy concepts. To gather this information, a survey was administered to undergraduate students at Farmingdale State College, State University of New York (SUNY). By gaining insight into students' current

*Megan Margino Marchese is associate librarian at Farmingdale State College, email: megan.marchese@farmingdale.edu, ORCID ID: 0000-0002-7348-6342; Andrew Marchese, email: an.marchese@gmail.com, ORCID ID: 0009-0002-2776-0221 ©2026 Megan Margino Marchese and Andrew Marchese, Attribution-NonCommercial (<https://creativecommons.org/licenses/by-nc/4.0/>) CC BY-NC.

relationship with GenAI, academic librarians will better understand how to address this topic in information literacy instruction and reference interactions.

Literature Review

The release of ChatGPT in November 2022 marked a significant advancement in the field of generative artificial intelligence (GenAI). Large language models (LLMs), such as ChatGPT, use advanced natural language processing to craft plausible, personalized, human-like responses to complex prompts in formats such as text, code, images, videos, and sounds (Chan & Hu, 2023; Chen et al., 2023; Farrokhnia et al., 2023; Guner, et al., 2024; Halaweh, 2023; Oldham, 2024; OpenAI, 2022; Wu et al., 2023; Zhu et al., 2023). While AI tools existed prior to ChatGPT, they could not replicate the human creative process (Oldham, 2024). Now, however, GenAI tools have reasoning capabilities and can generate realistic material such as detailed essays, stories, poems, music, etc. (Wu et al., 2023; Zhu et al., 2023). In addition to its creative capabilities, ChatGPT is accessible and easy to use and understand (Tiwari et al., 2023; Zhu et al., 2023). Holding the potential to change the landscape of many fields in both positive and negative ways, GenAI also presents the possibility of transforming higher education.

Potential Positive GenAI Uses for College Students

Relative to college coursework, GenAI has several potentially useful applications. It can be used as a learning tool with the ability to personalize learning for each user by employing simple language and engaging in an interactive dialogue (Chan & Lee, 2023; Chen et al., 2023; Lo, C.K., 2023; Rahmam et al., 2023; Xiao et al., 2023; Zhu et al., 2023). It could also be used as a study tool to create practice exercises, quizzes, study guides, and summarizing texts (SUNY FACT², 2023). Many also cite GenAI as a useful starting point for thinking processes, such as getting inspiration and brainstorming research topics, as well as being an organizational tool to outline ideas (Chan & Lee, 2023; Chan & Hu, 2023; James & Filgo, 2023; SUNY FACT², 2023; Xiao et al., 2023). Regarding editing final products, GenAI can provide feedback on grammar and style errors, citations, and whether the intended goal of the assignment has been accomplished (Chan & Hu, 2023; Halaweh, 2023; Lo, C.K.; 2023; SUNY FACT², 2023; Zhu et al., 2023). In consideration of inclusivity, GenAI's customized prompt feedback can meet each user's individual needs, both supporting students' self-regulated learning and educators' ability to adapt instruction for different types of learners (Chan, 2023; Chan & Lee, 2023; Chen et al., 2023; Crompton & Burke, 2023; Oldham, 2024; Rahman et al., 2023; Valova et al., 2024; Xiao et al., 2023; Zhu et al., 2023).

Potential Problematic GenAI Uses for College Students

In addition to positive uses of GenAI, there are also significant concerns about its negative impact on higher education. Using GenAI to complete college coursework poses a strong potential for plagiarism and violation of academic integrity (Chan, 2023; Chan & Hu, 2023; Chan & Lee, 2023; Guner et al., 2024; James & Filgo, 2023; Halaweh, 2023; Rahman et al., 2023; SUNY FACT², 2023; Valova et al., 2024). For example, GenAI can provide diverse responses to the same question, generate text in a certain style or tone, and can accomplish creative tasks (Adetayo, 2023; Halaweh, 2023; Lo, C.K., 2023; Lund & Wang, 2023; SUNY FACT², 2023; Wu et al., 2023; Zhu, 2023).

While GenAI output can include useful and accurate information, it can also contain errors, misinformation, disinformation, implicit bias, offensive or harmful content, and outdated information (Chan & Lee, 2023; Chan & Hu, 2023; Farrokhnia et al., 2023; James & Filgo, 2023; Halaweh, 2023; Haensch et al., 2023; Lo, C. K., 2023; Lund & Wang, 2023; Oldham, 2024; SUNY FACT², 2023; Tyson, 2023; Wu et al., 2023; Xiao et al., 2023; Zhu et al., 2023). Though GenAI is trained on data that contains copyrighted information, the source of the information is often unknown, and it is difficult to determine who created the information and for what purpose (Wu et al., 2023). Further, ChatGPT responses are known to include realistic-looking citations that do not actually exist, called “hallucinations” (Lo, C.K., 2023; SUNY FACT², 2023; Tyson, 2023; Wu et al., 2023).

There are also concerns that students’ overreliance on GenAI will negatively impact their critical thinking ability, learning, retention, writing development, creativity, and overall intellectual growth (Chan, 2023; Chan & Hu, 2023; Chan & Lee, 2023; Halaweh, 2023; SUNY FACT², 2023; Valova et al., 2024). Some critics believe that habitually using GenAI for coursework will diminish students’ ability to think independently and express themselves through writing (Oldham, 2024; Valova et al., 2024). Others, however, argue that students can think critically when using ChatGPT by modifying prompts, engaging in a dialogue of follow-up questions, and analyzing and assessing GenAI content (Xiao et al., 2023; Zhu et al., 2023). Though some users understand the importance of critically evaluating GenAI-produced content, its declarative statements lack expression, nuance, or caveat, and can convince users of its credibility (Kidd and Birhane, 2023). This underscores the importance of GenAI users’ ability to evaluate information.

GenAI and Information Literacy

Effective use of GenAI necessitates a discerning approach to information by exercising key concepts of information literacy, such as learning how to critically acquire new information and understand how information is made (Acosta-Enriquez et al., 2024; ACRL, 2016; Haensch et al., 2023; Shepherd & MacLeod, 2023). Recent literature discusses how AI can be incorporated into the ACRL *Framework for Information Literacy for Higher Education for Higher Education* (James & Filgo, 2023; Lo, L., 2023). Specifically, the potential for GenAI inaccuracies and its unreliability in documenting information sources directly relates to the ACRL Framework (ACRL, 2016; Del Castillo & Kelly, 2024; Frederick, 2023; James & Filgo, 2023; Lo, L., 2023).

Many believe that librarians should play a role in teaching students AI literacy, including its strengths and weaknesses, how content is generated, its ethical use, how to evaluate its responses, and how to formulate effective queries (Chan, 2023; Chan & Lee, 2023; Chen, 2023; Cox & Tzoc, 2023; Del Castillo & Kelly, 2024; Lo, L., 2023; Lo & Vitale, 2023). These skills are of particular importance to college students; Gen Z has been found to be more likely to trust information found online compared to other generations (Chan & Lee, 2023). As the presence of AI is increasing in many fields, it is also important to provide students with AI training to adequately prepare them for the workforce (Chan, 2023).

GenAI Usage Data

Looking at data on GenAI usage among young adults, the Pew Research Center found that 56% of 18- to 29-year-olds were using AI several times per week (Tyson & Kennedy, 2024). In a Microsoft (2024) survey, 29% of young adults between the ages of 18-24 have used AI, while

27% of that age group has experimented with AI. Sidoti and Gottfried (2023) found that 25% of high school juniors and seniors have used AI. Additionally, Valova et al. (2024) surveyed 102 high school and college students studying computer systems and technologies, finding that 21.6% use ChatGPT.

Regarding data exclusive to college students, a survey by [Intelligent.com](https://www.intelligent.com) (2023) found that 30% of students in the U.S. have used GenAI to complete college assignments. At Texas A&M University, Amani et al. (2023) found that 73% of engineering students surveyed have used ChatGPT. At UMass Amherst, 40% of the STEM majors surveyed have used ChatGPT (Tyson, J., 2023). Surveys also showed that students use GenAI as a tool for personalized learning, brainstorming, guiding ideas, research support, coding, assessments, and to complete varying amounts of assignments (Amani et al., 2023; Tyson, J., 2023; Valova et al., 2024).

Though existing research provides some aspects of students' GenAI use, there are currently limited details on students' knowledge of AI literacy, their opinions on acceptable uses of GenAI for college coursework, and their views on learning how to responsibly use AI in college. Further, there is a lack of data on how students' self-reported GenAI use relates to information literacy concepts.

Research Questions

1. What are undergraduate students' experiences using generative AI tools?
2. What are undergraduate students' experiences using generative AI to complete college assignments?
3. What are undergraduate students' experiences using generative AI throughout different stages of the writing process?
4. What are undergraduate students' opinions on the ethical and responsible use of generative AI for college assignments?
5. What are undergraduate students' interests in learning how to ethically and effectively use generative AI?

Methods

This study utilized an anonymous survey to collect responses from undergraduate students at Farmingdale State College, SUNY. The survey was created using Qualtrics and was designed based on a review of the current literature of AI use among college students. Questions were primarily Likert-scale, with four open-ended questions. The survey included branched questions, and respondents received between 14 and 22 questions depending on the responses they provided. For example, if a respondent answered that they have never used GenAI, they did not receive questions that asked about details of their GenAI use.

During the spring 2024 semester, the survey was emailed to instructors across all academic departments of the college to request their voluntary participation in announcing the survey in class or posting a link in their learning management system course page. Library student employees also distributed paper copies of the survey in the library. Additionally, the survey was announced to student clubs via email, and a QR code was displayed on flyers throughout campus.

Because portions of the survey asked respondents about the use of AI to plagiarize, several precautions concerning anonymity were taken. The informed consent notified students that the survey was anonymous, no personally identifiable information would be asked, IP

addresses would not be collected, and data would only be reported in aggregate in any dissemination of results. Participation in the survey was voluntary, any question could be skipped, and students under 18 years of age were excluded.

Results

The survey received 250 responses from students across a range of class standings and ages (see Figures 1 and 2).

Survey respondents included students from 33 different majors, representing the college's four schools: The School of Arts and Sciences (55 respondents); the School of Business (54 respondents); the School of Engineering Technology (45 respondents); and the School of Health Sciences (26 respondents) (see Figure 3). Not all responses listed a major.

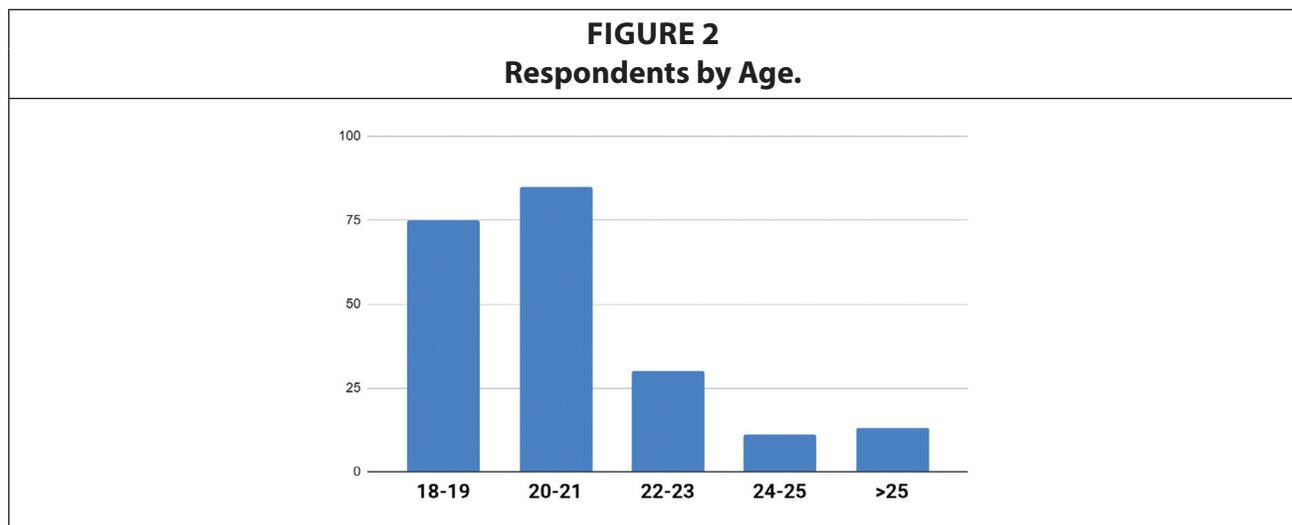
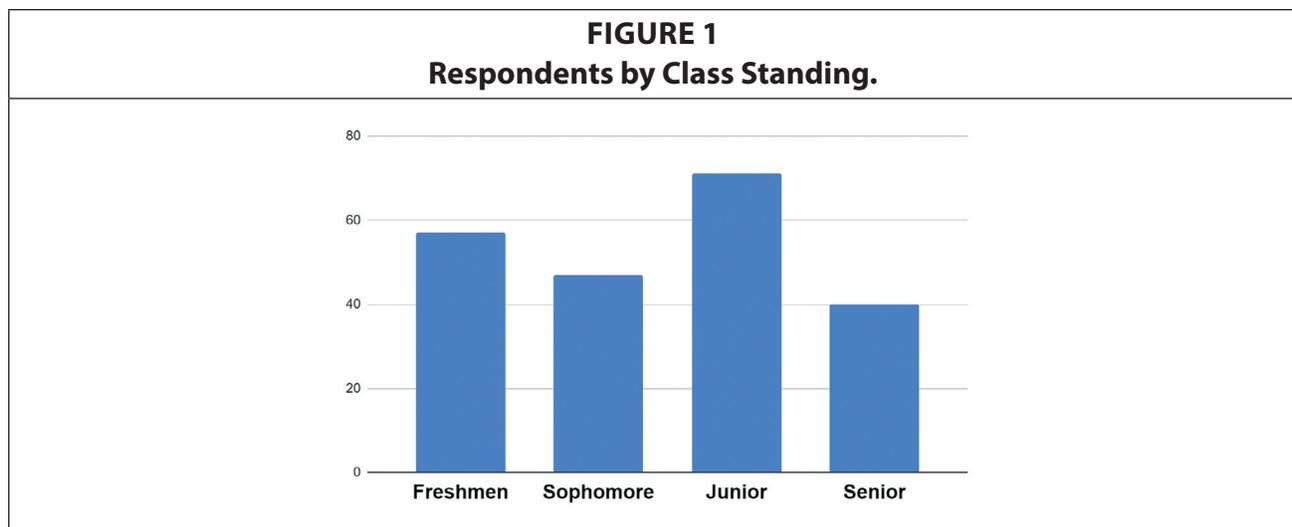


FIGURE 3
Respondents by Major.

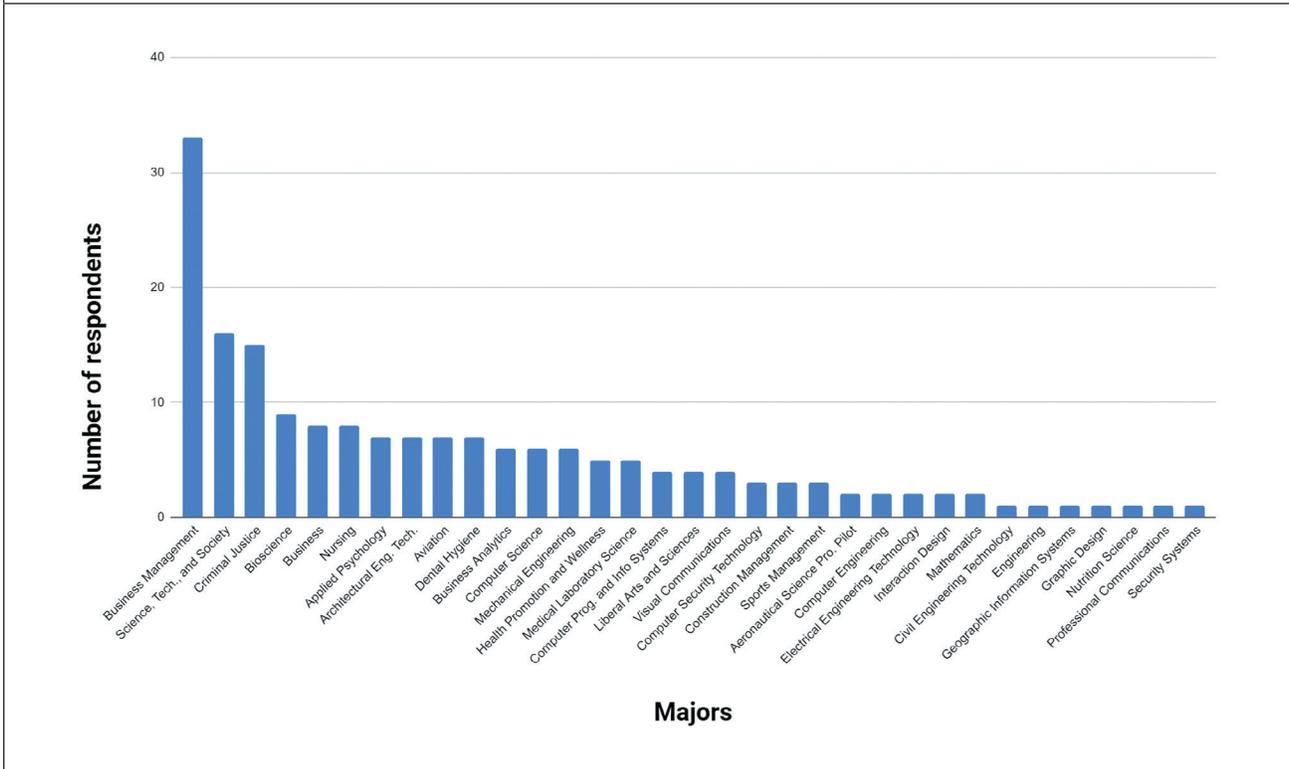
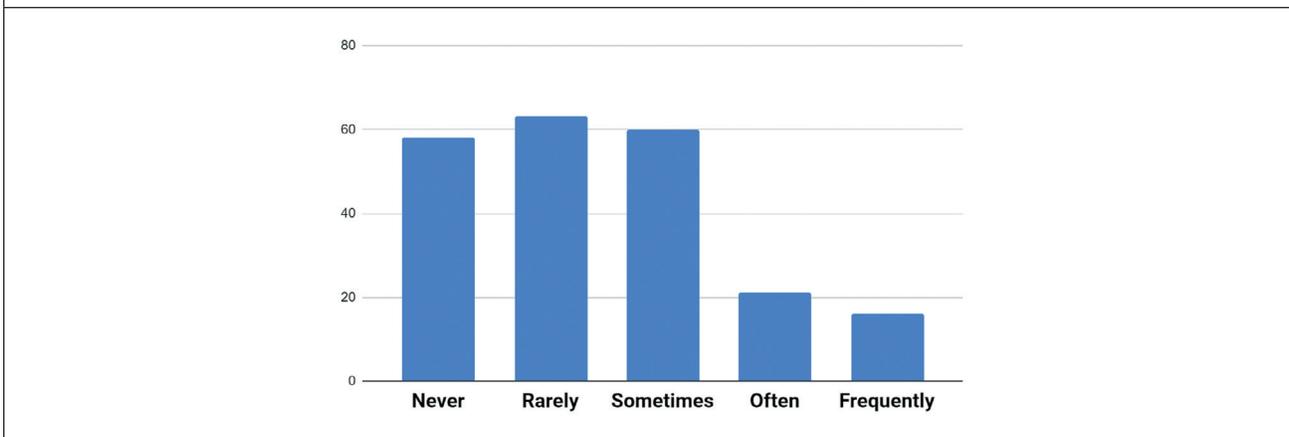


FIGURE 4
Respondents' Overall GenAI Usage.



GenAI Usage

Levels of GenAI usage were similar across different majors and schools of study. Seniors are the highest group to report using GenAI often (19.5%) (see Figure 5).

Considering usage by age, students aged 22 and older were more likely to use GenAI frequently compared to younger students (see Figure 6).

FIGURE 5
GenAI Usage Among Different Class Standings.

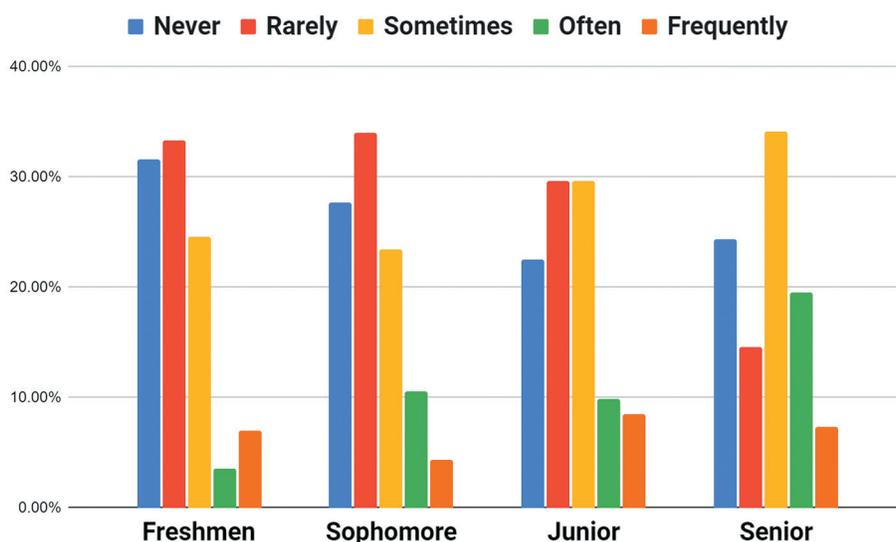
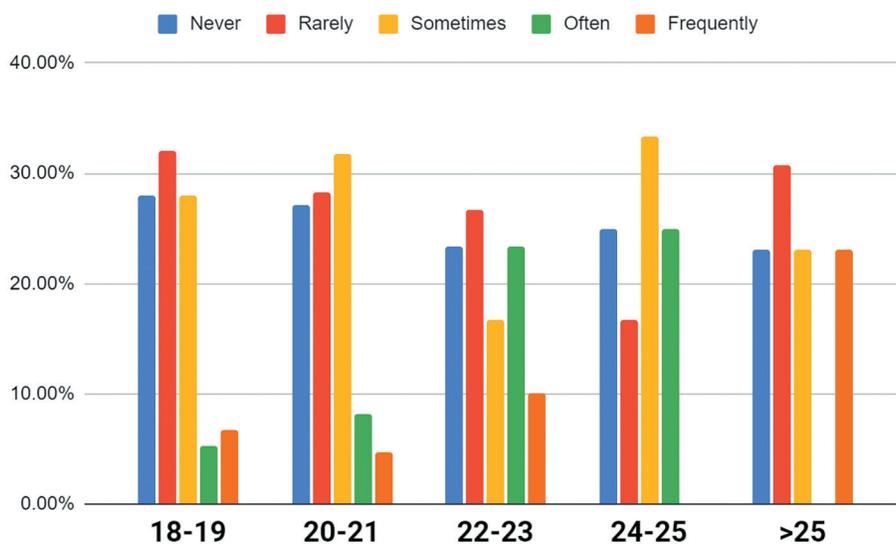
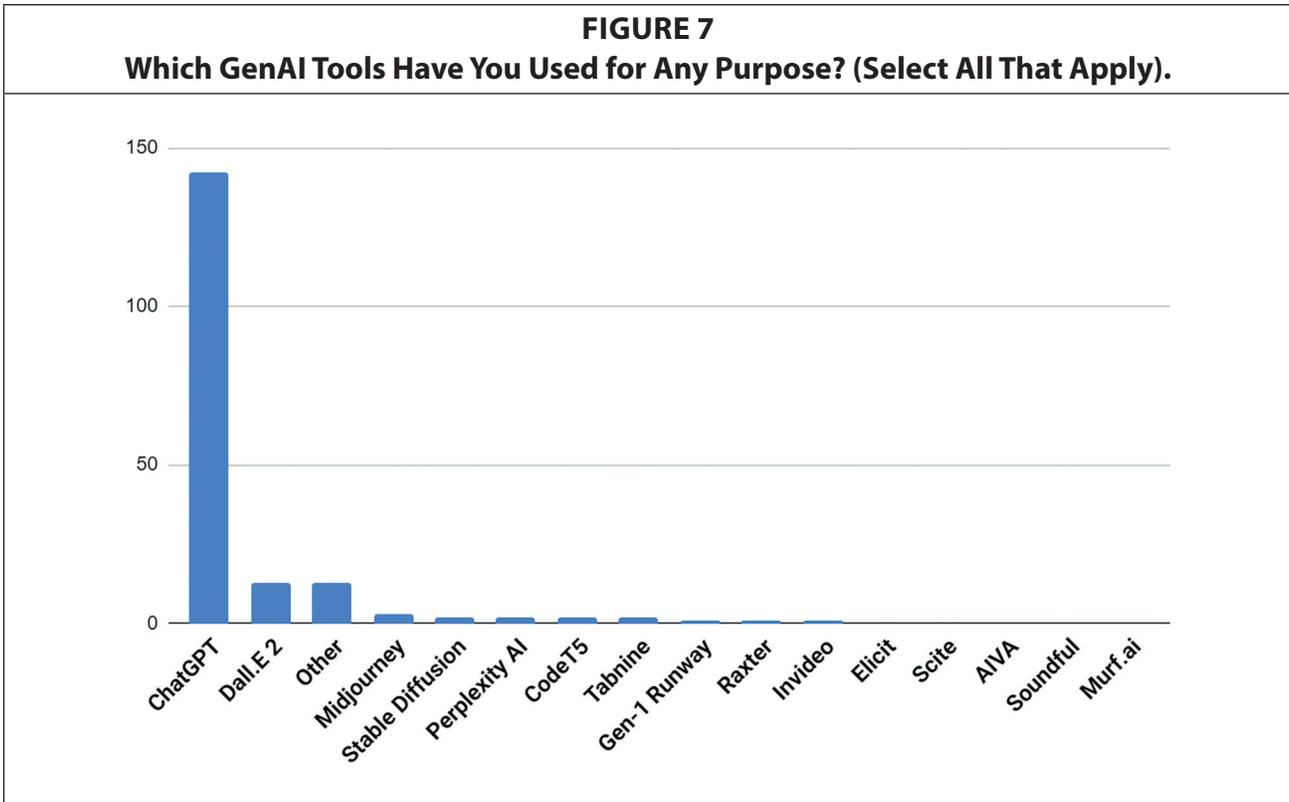


FIGURE 6
GenAI Usage Among Different Ages.



Use of GenAI Tools for Any Purpose

When asked which GenAI tools they have used for any purpose, the overwhelmingly majority of respondents reported using ChatGPT (142 responses). Responses that selected “other” identified the following tools: Grammarly (3), Microsoft Copilot (2), Claude (1), [Character.ai](#) (1), Dream Tavern (1), Quillbot (1), Photoshop AI Generative fill (1), and Adobe Suite AI tools (1) (see Figure 7).



Opinions from Non-Users of GenAI

When completing the survey electronically, respondents who had never used GenAI did not receive questions that asked details about their AI use. Instead, they received two questions regarding their awareness and knowledge of GenAI (see Figures 8 and 9).

Types of GenAI Usage

Respondents who had used GenAI were asked to identify how they use it. Thirty percent reported personal use of GenAI only, without having used it for college-related assignments (see Figure 10).

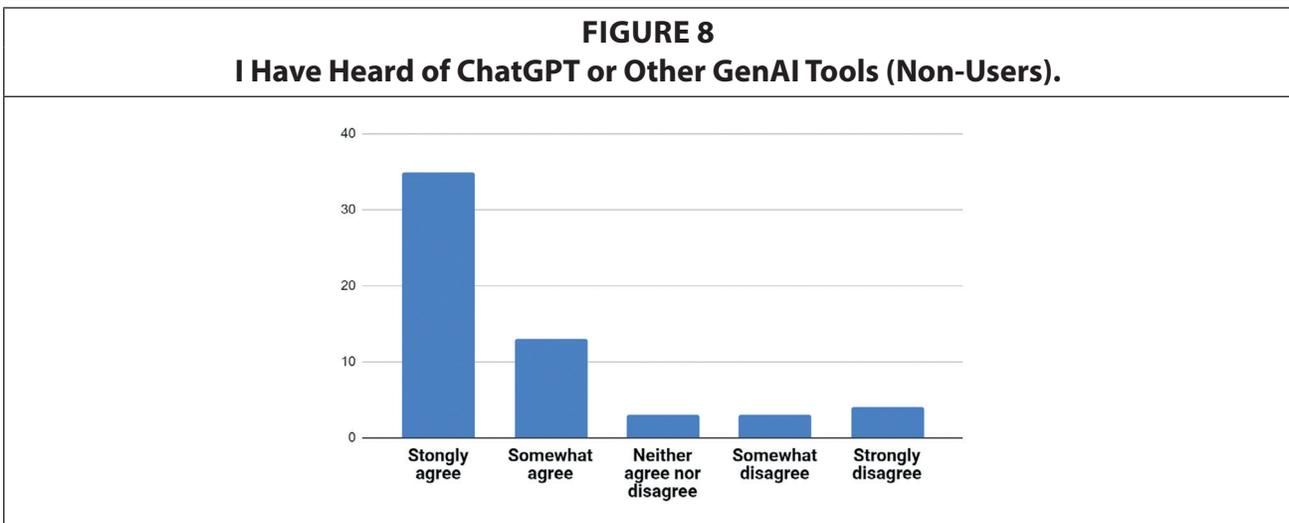


FIGURE 9
I Am Aware of the Functions of ChatGPT or Other GenAI Tools (Non-Users).

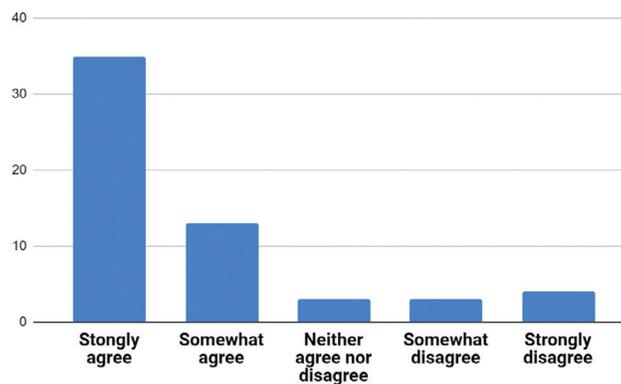
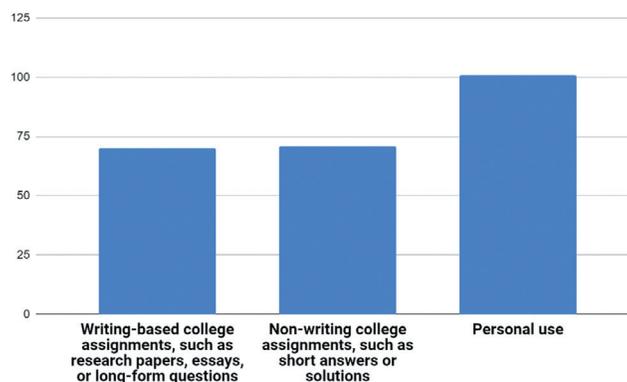


FIGURE 10
Identify How You Have Used ChatGPT or Other GenAI Tools (Select All That Apply).



Use of GenAI for College Assignments

Looking at respondents who used GenAI for college-related purposes, the overwhelming majority also use ChatGPT (88) responses. Responses that selected “other” identified the following tools: Adobe Suite AI tools (1), Grammarly (1), Chegg (1), Photoshop AI Generative Fill (1), and Quillbot (1) (see Figure 11).

Types of GenAI Usage for College Coursework

Respondents were asked to select all the ways they have used GenAI to complete college assignments. Respondents who selected “other” described additional ways they use GenAI, such as rephrasing their ideas, achieving word limits, self-learning, and locating images (see Figure 12).

Copying and Pasting GenAI Responses

Respondents who said they use GenAI to copy and paste responses for an assignment received three additional questions that asked about the amount they have copied. Twenty students answered these additional questions (see Figures 13–15).

FIGURE 11
Which GenAI Tools Have You Used to Complete College Assignments?
 (Select All That Apply).

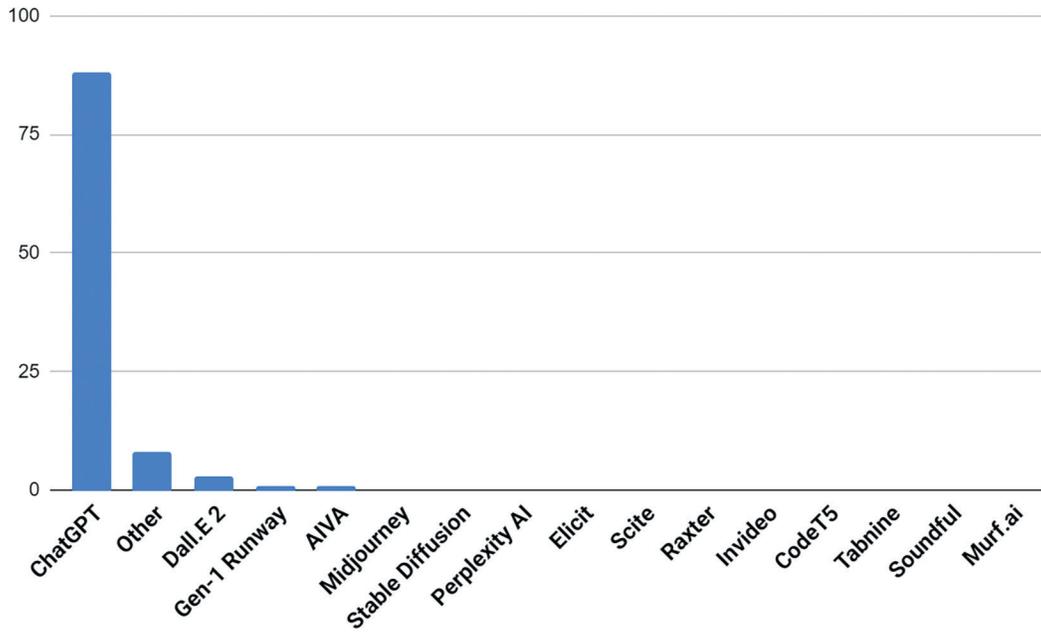


FIGURE 12
Identify How You Have Used ChatGPT or Other GenAI Tools for College Assignments
 (Select All That Apply).

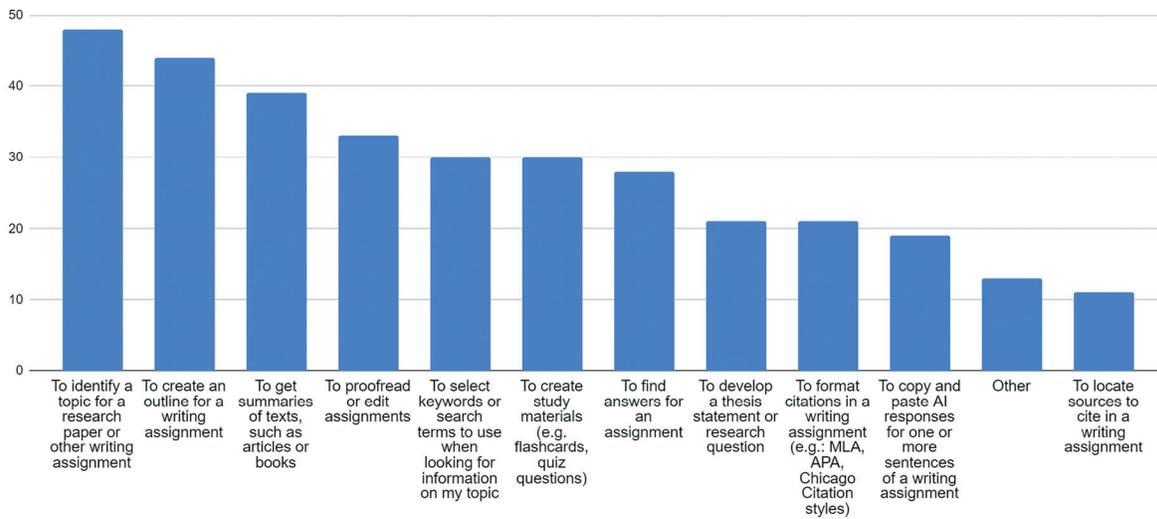


FIGURE 13
I Have Copied and Pasted ChatGPT or Other GenAI Responses for 25% or More of an Assignment.

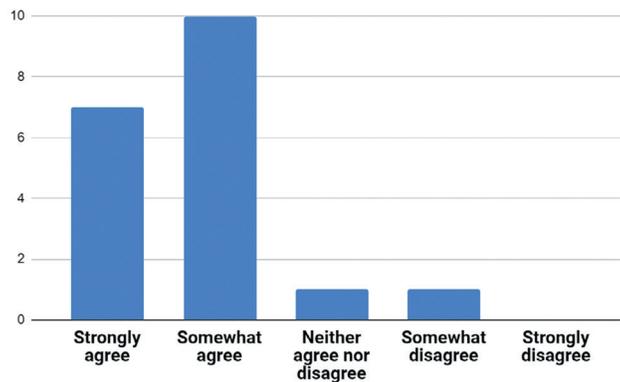


FIGURE 14
I Have Copied and Pasted ChatGPT or Other GenAI Responses for 50% or More of an Assignment.

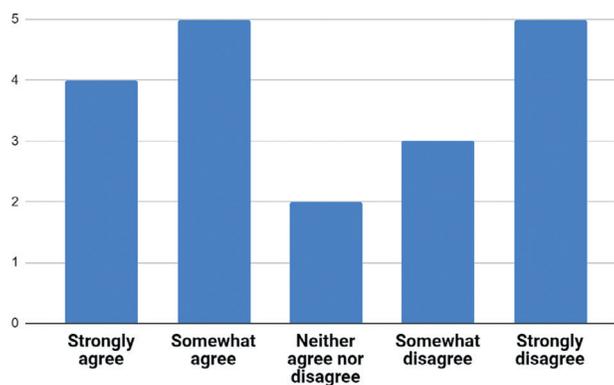
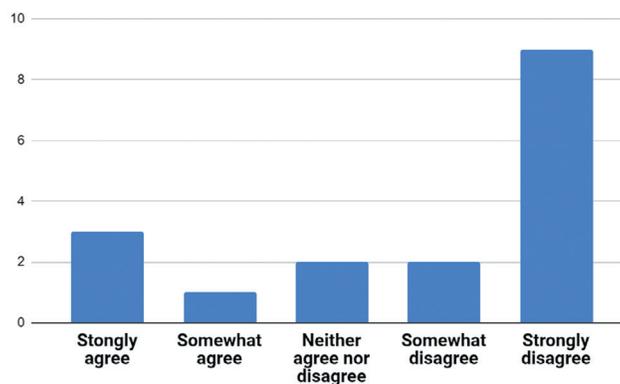


FIGURE 15
I Have Copied and Pasted ChatGPT or Other GenAI Responses for 75% or More of an Assignment.



Checking for Accuracy and Editing Responses Opinions on Usefulness

Most respondents found GenAI to be useful in completing college assignments (see Figure 18). An open-ended question prompted students to explain their answer regarding GenAI usefulness. Many students use GenAI as a guide to help them get started with assignments. They use it to get ideas, create outlines, and brainstorm topics. Another prominent theme was using GenAI as a learning tool, including using it to simplify complex wording, to get background information about a research topic, and to get explanations for concepts. One student remarked, “AI is always available to teach. A professor is not.” Several comments also discussed using AI to help them understand the assignment requirements and to check if their work has met the requirements of an assignment.

Using AI to improve writing was another prominent topic regarding GenAI usefulness. Students wrote that AI helps give new approaches to their writing and grammar. Many comments used the term “writing sophistication,” explaining that they ask AI to make their writing sound better and to find better ways to say something. Comments also mentioned using AI to proofread their work. Students talked about AI as a tool to complete their work in general. They use it to expand upon their ideas, to supplement their work, to get tips on

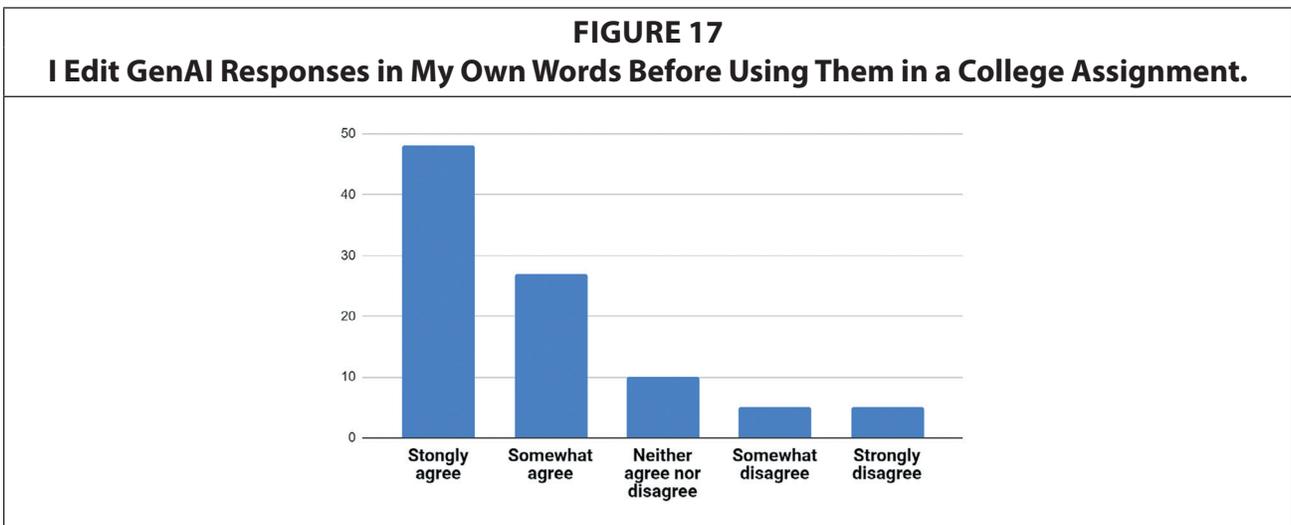
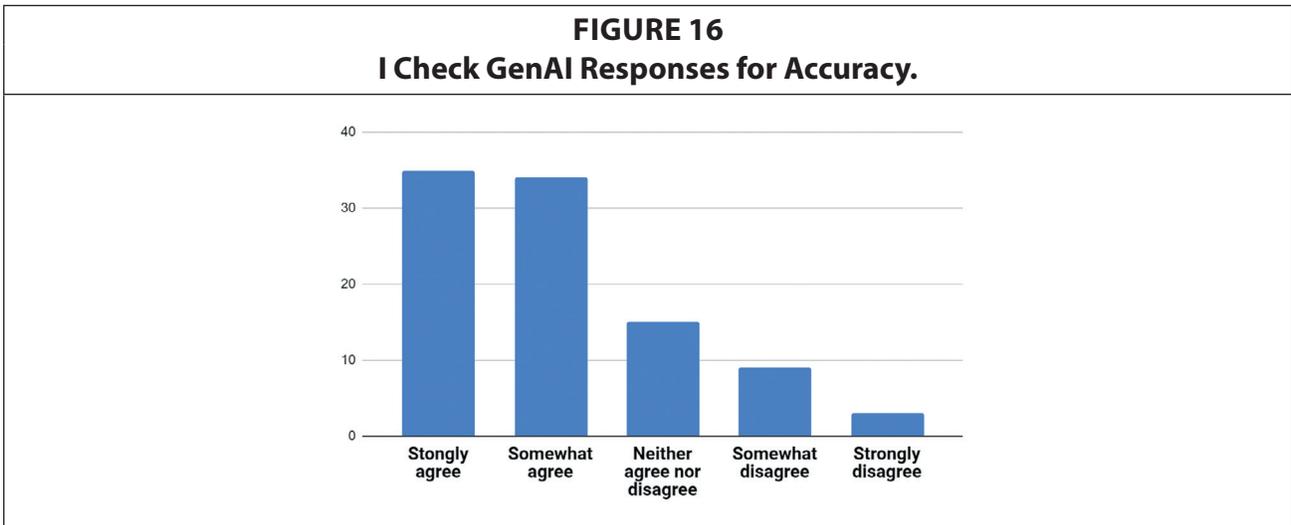
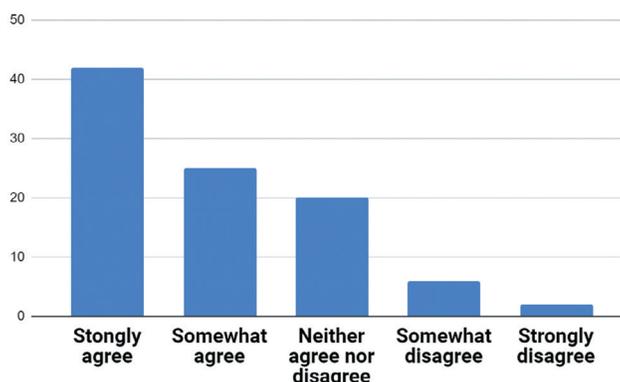


FIGURE 18
I Have Found GenAI to be Useful in Completing College Assignments.



how to complete their work, and to assist with difficult questions. They also noted ChatGPT's usefulness for saving time, mentioning that it is quick and helps with deadlines.

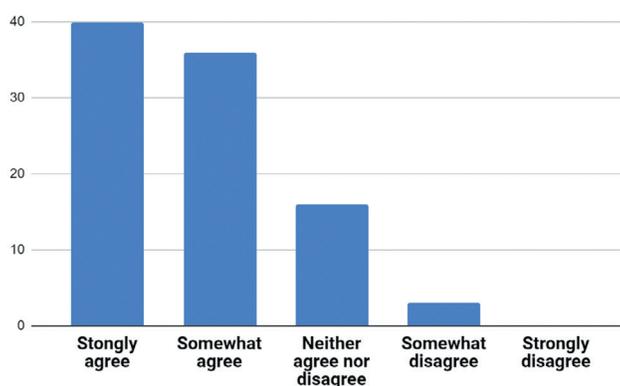
Other comments discussed the unreliability of GenAI's usefulness due to its potential to provide incorrect information. One said, "sometimes it works, sometimes it doesn't." Recognizing that GenAI does not have the same capabilities as humans, one comment noted, "Having friends, tutors, professors, or the Writing Center look over one's assignment is more reliable. These people can better understand the nuances of the assignment and of language and better formulate creative and constructive feedback for students than internet-based AI currently can."

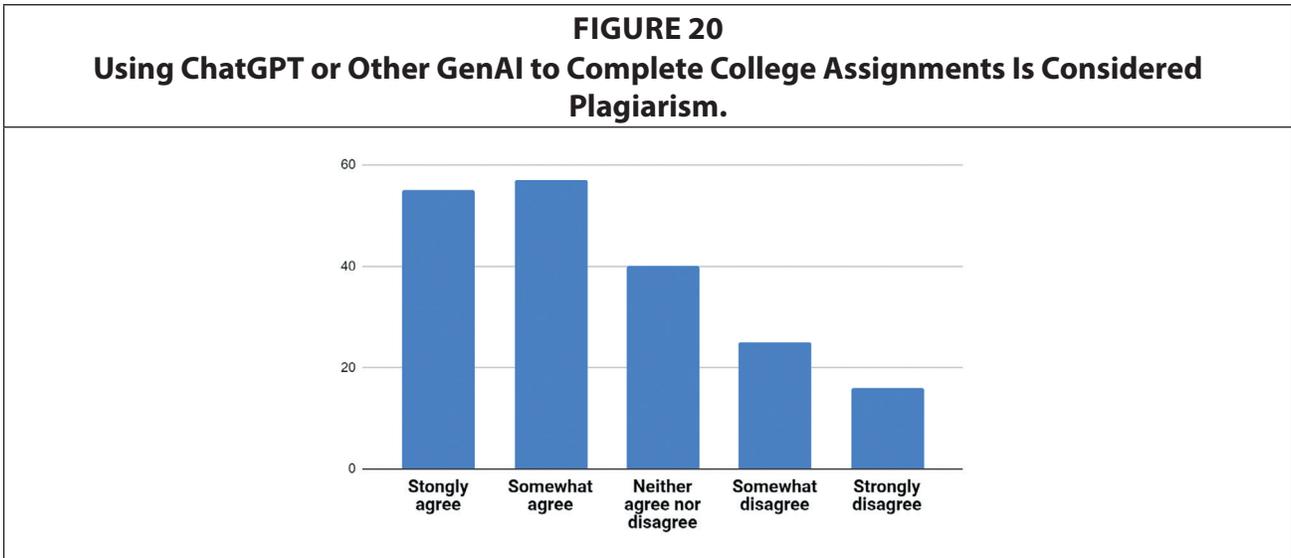
Opinions on Ethical Use and Plagiarism

Respondents were asked to rate the degree to which they feel their GenAI use is ethical (see Figure 19).

All respondents, regardless of experience using GenAI, were asked to rate the degree to which they felt using GenAI to complete college assignments is considered plagiarism (see Figure 20). The questions on ethical use and plagiarism were both followed by open-ended responses, prompting respondents to explain their answers. Overlapping themes emerged

FIGURE 19
I Consider My Use of GenAI to Be Ethical.





from these comments, including views on GenAI acceptable uses, its use as an academic source, and opinions on originality, citations, student learning, and accuracy (see Tables 1-9).

Opinions on Acceptable Uses Vary

Many respondents expressed the belief that they ethically use GenAI for college coursework because they alter and expand upon AI-generated content. They explain that they “don’t use it to write a whole paper,” and using AI for coursework is okay “as long as you don’t copy word for word.” One felt that they ethically use AI because the “final use always ends up being transformative.” Another wrote “I word the statement in my own way or explain what I have learned.” Comments reveal that students feel it is their responsibility to ensure they are using AI ethically, noting “knowing where to set the boundary is essentially the only thing keeping you from plagiarizing.” Table 1 shows how respondents identified cases of acceptable and unacceptable uses of GenAI in relation to college coursework.

TABLE 1 Respondents’ Opinions on Plagiarism by Type of GenAI Use	
Views of Acceptable GenAI Uses	Views of Unacceptable GenAI Uses
<ul style="list-style-type: none"> • Developing ideas, getting inspiration, getting started (writing and artwork) • Generating outlines, organizing work • Improving grammar • Studying • To learn, to get explanations of concepts • To get definitions • Using AI as a guide and a “helping tool” • Paraphrasing AI responses • If AI responses are reinforced with personal opinion • To check writing, check answers • When courses encourage or require its use as a tool • If used “within reason” 	<ul style="list-style-type: none"> • An entire assignment being copied • Word-for-word copying of AI responses • Prompting AI to generate an entire paper • Submitting AI responses with no human interaction or input • To get answers • To complete homework • When course syllabi state AI use is not allowed

Opinions of GenAI as an Academic Source

Many respondents hold the opinion that using GenAI is ethical and is not plagiarism because they view it as an academic source. Comments (see Table 2) show how students compare GenAI to Google, Wikipedia, textbooks, and journal articles.

TABLE 2 Opinions of GenAI as an Academic Source
<ul style="list-style-type: none"> • “What’s the difference between AI and Google?” • “I’m not doing something that Google couldn’t help me with.” • “If cited or referenced it should be able to be used for writing just like any other textbook, article, or other sources that are allowed to be used.” • “I restate what the AI generates, which isn’t much different from restating information from a peer-reviewed article, which is what we’re required to do.” • “Using AI is the same as searching up anything on the internet.” • “AI is like another academic source where you can find answers to questions that are not addressed in class.”

Opinions on GenAI Responses as Someone Else’s Words

Students’ opinions on AI and plagiarism are shaped by their view on whether AI-generated responses are another person’s words (see Table 3).

TABLE 3 Opinions on GenAI Responses as Someone Else’s Words		
GenAI Responses Are Not Someone’s Words	GenAI Responses Are Someone’s Words	Ambiguous
<ul style="list-style-type: none"> • “You can’t plagiarize something that wasn’t made by a person.” • “You’re not taking another human’s words, it’s computer generated.” • “It is not anyone’s words, it’s technically your own words because it’s unique for every person.” • “AI has no autonomy or claim to the work it creates so it’s not really plagiarism.” • “It’s not the student’s own answer but it’s not someone else’s either.” • “It’s not plagiarism because it’s not someone else’s work.” 	<ul style="list-style-type: none"> • “Technically you are copying someone else’s work, even if it’s a computer generating it.” • “Regardless of it being artificial intelligence or an actual person, it is still using another’s words.” • “I feel that people are just relying on AI to answer their questions and technically you are copying someone else’s work while doing it, even if it’s a computer generating it.” • “The algorithm takes information online (hence other people’s work).” 	<ul style="list-style-type: none"> • “Plagiarism is defined as claiming another person’s work as your own. Technically ChatGPT isn’t another person, but you are still claiming it as your own.” • “It could be considered plagiarism because the words aren’t your own. However, the content generated by AI does not necessarily belong to anyone else.” • “Some people have ChatGPT paraphrase their own work which isn’t really plagiarism.”

Opinions on the Originality of GenAI Responses

Students’ feelings on whether AI responses are original also impacts their views on AI and plagiarism (see Table 4).

TABLE 4 Opinions on the Originality of GenAI Responses	
GenAI Responses Are Original	GenAI Responses Are Not Original
<ul style="list-style-type: none"> • “ChatGPT gives a unique response to a specific question. It is not a copy and paste from an internet source such as Google. So, I don’t think this can be called plagiarism.” • “If [AI] is taking work directly from a site, then yes, but if it is all generated and has never been written or worded in that way, why would it be plagiarism?” • “Since it’s not another person’s exact words on the internet, I wouldn’t consider it plagiarism. But I don’t really know.” 	<ul style="list-style-type: none"> • “It’s trained on previously existing data, meaning it’s not coming up with an original answer.” • “It is not generating anything new.” • “GenAI does not provide original responses because it is trained on existing data.” • “AI is simply regurgitating information that is unsourced on the internet.” • “From my understanding, ChatGPT uses sources from articles all over the web and makes a paper out of it. I would consider this to be plagiarism.”

Opinions on the Presence of Citations in GenAI Responses

Some respondents discussed the lack of citations in ChatGPT responses as a reason for viewing the use of GenAI for assignments as plagiarism (see Table 5).

TABLE 5 Opinions on the Presence of Citations in GenAI Responses
<ul style="list-style-type: none"> • “It’s plagiarism because ChatGPT takes information WITHOUT CITATIONS included.” • “AI copies information from other websites without giving credit.” • “Because AI is simply regurgitating information that is unsourced on the internet.” • “It is taking info from other sources without citing it.”

Overreliance on GenAI Inhibits Learning

Other respondents felt that using GenAI for assignments is unethical because its overuse can negatively impact learning (see Table 6).

TABLE 6 Overreliance on GenAI Inhibits Learning
<ul style="list-style-type: none"> • “It’s not the student’s own writing or work, they aren’t learning if they use AI to do the work for them. I’m highly against using AI for college assignments. A very lazy student who is failing his or her class could use AI to pass the class and it makes it very unfair for students who don’t use AI and are intelligent students.” • “It takes away from the learning that students need.” • “ChatGPT should not be used to write things for you (ex. essays). It is wrong to cheat but also, you are hurting yourself in the end from overreliance. You lose your writing skills/ability.” • “I think it doesn’t allow students to really understand the topic well.”

Opinions That Using GenAI Is Not Your Work

Some respondents viewed the use of GenAI for assignments as not completing your own work, fitting the definition of plagiarism (see Table 7).

TABLE 7
Opinions That Using GenAI is Not Your Work

- “If you are using AI to actually complete assignments instead of doing them yourself, this is no different than copying someone else’s work.”
- “Plagiarism is using work that isn’t yours and claiming it is yours. This fits that criteria.”
- “I do not think it’s right to have something or someone else completing work for you.”
- “I think using AI is cheating and everyone should do research instead of taking the lazy way out.”
- “It’s not your work so how could you turn it in for a grade saying it’s yours?”
- “The computer is generating the answer or explanation, not your mind.”
- “You’re not coming up with the ideas yourself. You’re taking credit for work that you didn’t not create.”

Opinions That GenAI Can Be Inaccurate

Additionally, some respondents feel that using GenAI for assignments is unethical due to the possibility of inaccurate responses (see Table 8).

TABLE 8
Opinions That GenAI Can Be Inaccurate

- “It can be used for ideas but it isn’t good to rely on for correct information.”
- “If you are straight copy pasting, lots of issues such as inaccuracy of information and not relying on your own skills and thoughts”
- “ChatGPT can completely miss the topic or accidentally plagiarize.”
- “Not really your own research for the answers and probably not accurate either.”

Opinions of AI Literacy as a Skill

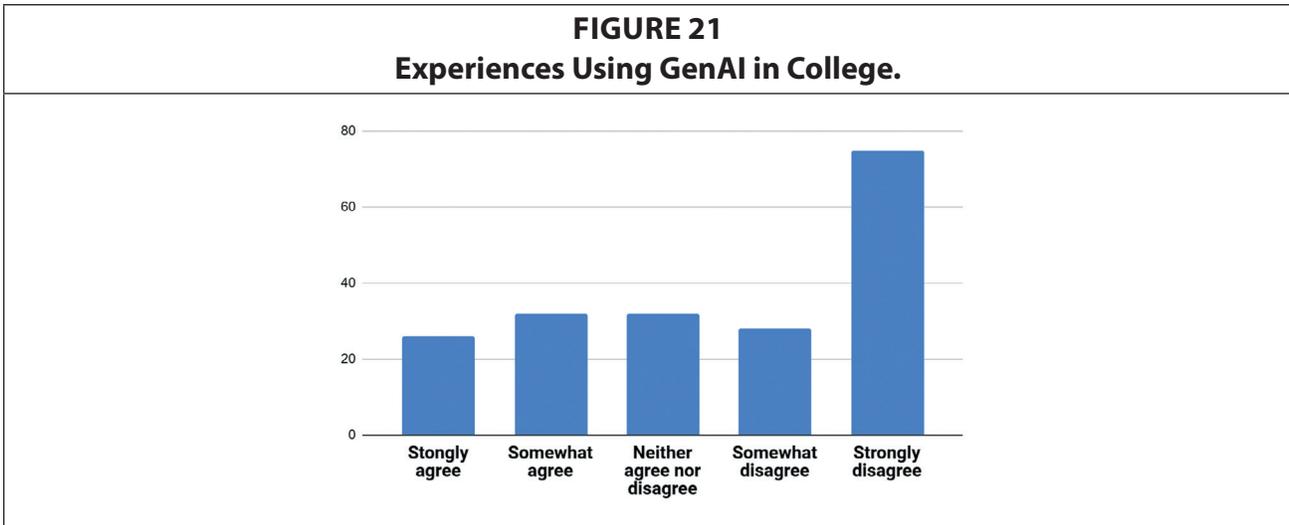
Other respondents expressed the opinion that using GenAI for coursework is not plagiarism because its use is a useful life skill and is sometimes used for classes (see Table 9).

TABLE 9
Opinions of AI Literacy as a Skill

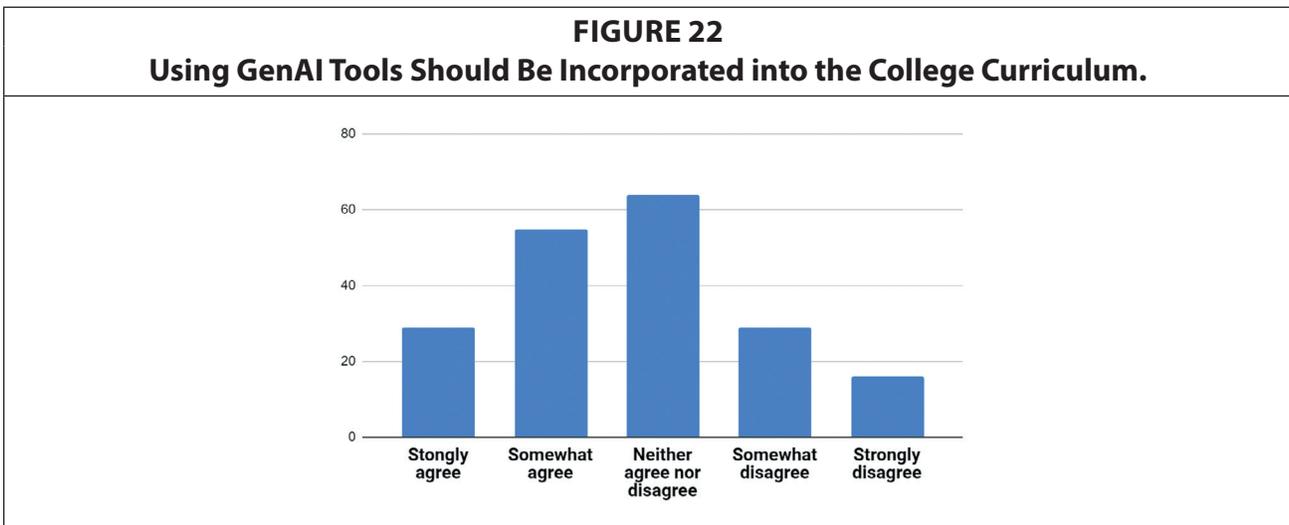
- “In marketing and senior courses this is encouraged to use as a tool in our tool boxes for the world or jobs.”
- “A student who never uses ChatGPT but cannot come up with anything new is worse than an intelligent student who uses ChatGPT but can produce something unique and valuable.”

Experiences Learning GenAI in College

Respondents were asked to rate the degree to which they have learned how to use GenAI as part of their college coursework (see Figure 21). In response to this question, some students attached ChatGPT-related assignments to paper copies of the survey. These assignments required students to fact-check AI responses by comparing information to reputable sources and to evaluate AI responses. These examples show how traditional writing assignments are evolving due to GenAI.



GenAI Tools in the College Curriculum



How Should GenAI Be Taught in College?

All respondents were asked how colleges should teach students how to use GenAI, if at all (see Figure 23).

Regarding the selection, “colleges should teach students how to use GenAI in specific classes,” respondents were offered an option to provide an open-ended comment explaining their response (see Tables 10 and 11).

FIGURE 23
In What Ways, If Any, Should Colleges Teach Students How to Use GenAI?
 (Select All That Apply).

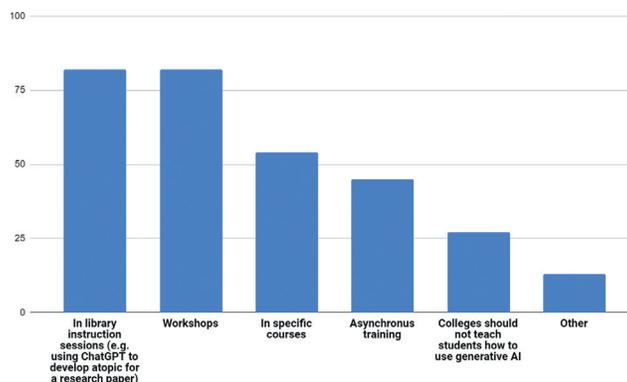


TABLE 10
Academic Areas Identified for GenAI Instruction

- Computer science, computer programming
- Technology-heavy courses
- Architecture
- Engineering
- Senior project (writing intensive)
- Writing courses
- Visual communications, art
- First-Year Experience

TABLE 11
Opinions on Educating Students How to Use GenAI

- "I think technology and these systems will be popular in the coming years as we have seen, therefore educating students about this can be very beneficial."
- "Colleges need to prepare for AI because it will be used and is beneficial for everyone, not just students."
- "Any student looking to work with AI as a major should be taught how to use it."
- "It's important to show students how to use [AI] so they don't fall behind in the field of graphic design. Generative AI will be in the design field whether we like it or not."

Lastly, some comments emphasized the widespread use of AI, noting that "people are going to use it no matter what" and "it would be wild and outrageous to completely reject the use of it."

Discussion

Overall GenAI Usage

This survey reveals insights into how students use GenAI and thereby contributes to librarians' understanding of how to address GenAI regarding information literacy. Survey responses provide evidence that students hold a wide range of experiences and opinions using GenAI.

While 26% of respondents report having never used it at all, others are frequent users. Respondents who are GenAI users report varying degrees of use, including 30% identifying personal use only, without having used it in relation to college. Varying types of GenAI use was also reported among respondents who used GenAI for college-related purposes. This data highlights significant differences in students' opinions about ethical and responsible use of GenAI for college assignments.

Looking to the future, students' degree of GenAI usage is expected to drastically increase in the next several years; many believe that the future of higher education will include incorporating GenAI, rather than prohibiting it (Chan, 2023; Chan & Lee, 2023; Chen, 2023; Cox & Tzoc, 2023; Del Castillo & Kelly, 2024; Haensch et al., 2023; Lo, L., 2023; Lo & Vitale, 2023 Statista, 2024). The likely permanence of GenAI emphasizes the value of these survey results, which indicate a clear need for students to have increased basic knowledge of GenAI. Students' misconceptions of the process by which GenAI chatbots generate responses impacts their decisions on whether to use GenAI for college coursework and the extent to which it is used. This can potentially lead to students' misuse of information, underscoring the importance of information literacy skills.

Pairing AI Literacy with Information Literacy Instruction

Respondents identified library instruction sessions and workshops as leading selections for how colleges should teach students to use GenAI. One comment suggested its incorporation into the First-Year Experience course:

It should be part of College Seminar or whatever that intro to college class is. Go over it, what is and is not okay to do with it. How it can be helpful, how to check to make sure it isn't hallucinating. And especially how to use it as a tool, and not as a crutch.

This opinion, along with the overall results of the survey, shows the need for students to better understand GenAI and its relevance to college. When considering basic information regarding ChatGPT and other GenAI tools, AI literacy can be closely tied to information literacy in the following areas:

1. The importance of knowing where information comes from
2. Considering plagiarism in the context of AI
3. Questioning the originality of GenAI responses

The Importance of Knowing Where Information Comes From

Survey responses call attention to students' varied understanding of what GenAI is and how it forms responses. While it is apparent that most students have some knowledge of GenAI, misconceptions are prevalent in survey comments, and it is evident that students need general knowledge of GenAI.

Understanding the credibility of information sources is a core component of information literacy. The Authority Is Constructed and Contextual frame of the ACRL Framework (2016) emphasizes "the need to determine the validity of information created by different authorities and to acknowledge biases that privilege some sources of authority over others' worldviews, gender, sexual orientation, and cultural orientations" (p. 4). The Framework also discusses

the need to “critically examine all evidence,” and “to ask relevant questions about origins, context, and suitability for the current information need.” However, because some GenAI tools such as ChatGPT currently do not provide reliable citations, it is difficult to investigate the information authorities of such GenAI responses. If ChatGPT is a user’s sole information source, as most of the survey responses demonstrated, the user would be unable to adhere to the authority guidelines put forth in the ACRL Framework. The survey indicates that many students are relying on ChatGPT as a source, both paraphrasing and directly copying its content. This shows the necessity for students to understand how GenAI responses are produced.

Information literacy instruction typically involves the concept of evaluating information sources. For example, through teaching differences between types of sources, why some sources are considered more credible than others, and the appropriateness of different sources for different contexts, librarians might discuss themes of author expertise, publication reputation, source documentation, publication date, and bias. By relating information literacy to AI literacy, librarians can emphasize why an absence of source information in GenAI responses is significant. Because ChatGPT is trained on data that comprises the whole of the internet, it creates responses using information from a wide range of sources, including those that are credible and accurate, as well as sources that contain inaccuracies, bias, and inappropriate content (Chan & Lee, 2023; Chan & Hu, 2023; Farrokhnia et al., 2023; Halweh, 2023; Haensch et al., 2023; Lo, C. K., 2023; Lund & Wang, 2023; Oldham, 2024; SUNY FACT², 2023; Tyson, 2023; Wu et al., 2023; Xiao et al., 2023; Zhu et al., 2023). Lack of real-time information is also an important point of which students should be aware (James & Filgo, 2023). While the authoritative tone of ChatGPT and other GenAI tools may lead students to believe they are scholarly sources, librarians can use information literacy instruction skills to address concepts of AI literacy.

Considering Plagiarism in the Context of AI

Survey respondents were generally in agreement about what constitutes ethical use regarding GenAI and coursework. Acceptable uses reported in the survey included using AI to brainstorm and generate ideas, to create outlines, to understand assignments, to check grammar and vocabulary, to check work in general, and to learn and study. Many responses also discussed paraphrasing GenAI, explaining that they felt their AI use was ethical because they rephrase responses in their own words. Despite their emphasis on paraphrasing AI-generated content, few respondents discussed having cited GenAI as a source. This discrepancy suggests that students may believe their coursework-related AI use is ethical if responses are paraphrased, regardless of whether they cited the information.

While respondents agreed that it was acceptable to use GenAI for assignments “as long as you don’t copy word for word,” they also generally believed that acceptable use of AI includes correcting grammar, editing, and improving writing sophistication. However, these uses contradict each other. Though many responses discussed the importance of not using the exact phrasing of AI responses in assignments, the use of GenAI to edit and revise writing implies that students will, in fact, submit the exact words of GenAI responses as a final product.

One justification for using GenAI to revise writing identifies students’ ideas as a focal point of the work, rather than their academic writing ability. Halaweh (2023) argues that because minimum levels of English skills are required to join any academic program, students should be able to use text editing to improve their writing. Using GenAI for grammatical purposes

could also benefit English learners in this capacity. Halaweh (2023) predicts that AI will become part of the writing process, similar to how calculators and computers have changed the fields of mathematics and science. However, different academic areas prioritize academic writing ability to varying degrees and use of GenAI should not replace student learning. For example, if students are learning essay revision skills in an English composition course, using GenAI for revision purposes would undercut student learning.

A major consideration concerning this topic is the extent to which GenAI input should be permitted in student work. If acceptable uses of AI in college coursework include both (1) generating and organizing ideas and (2) editing the final product, the distinction between students' work and AI content becomes murky. As students noted in the survey, it is largely the responsibility of the user to resist over relying on AI and ensuring that their own work is present in the final product. Students need guidance on specific allowable and prohibited uses of GenAI, which may be individual to each course.

Regarding plagiarism, definitions often use the phrases 'another person' or 'another,' when referring to the act of passing off work as your own. For example, the MLA Style Center (n.d.) defines plagiarism as "presenting another person's ideas, words, or entire work as your own." Similarly, the APA Style (n.d.) defines plagiarism as "the act of presenting words, ideas, or images of another as your own." Plagiarism definitions that use the phrasing "another person" may need to be reframed, as some students do not consider AI responses to be the words of another person. Specifically, student comments such as "you can't plagiarize something that wasn't made by a person," and "you're not taking another human's words, it's computer generated," are particularly eye-opening. These opinions show a need for students to have a better understanding of plagiarism and of AI. Definitions of plagiarism that omit language referring to 'another person' or 'another' are more effective in encompassing AI in the context of plagiarism. One such definition from The University of Oxford (n.d.) describes plagiarism as "presenting work or ideas from another source as your own ... by incorporating it into your work without full acknowledgement." This explanation prompts students to consider plagiarism based on information from any source, including GenAI, rather than only human-created content.

Questioning the Originality of GenAI Responses

Survey comments that discuss the originality of GenAI responses also signify a need for students' increased understanding of how GenAI responses are generated. While some students discussed the data training process of ChatGPT, responses from other students indicate misconceptions regarding the uniqueness of responses. The concept of a "unique response" contributed to some students' responses relating to GenAI and plagiarism. Referring to ChatGPT, students made comments such as "it's not anyone's words, it's technically your own words because it's unique for every person," and "if it is all generated and never worded in that way before, why would it be plagiarism?"

In contrast to these statements, Lucchi (2023) discusses AI and copyright law, explaining that AI-produced content "may be less unique than expected," "derivative," or "based on previously published works" (p. 9). However, the issue of whether copyright law should protect or exclude AI-generated work has not yet been settled (Gaffar & Albarashdi, 2024). This survey shows that students' perceptions of GenAI's originality impacts their views regarding AI and plagiarism and their overall use of GenAI. The discrepancy between students' perceptions

of GenAI originality compared to legal analysis on this topic demonstrates further need for students to be accurately informed on GenAI basics.

Future Directions

Based on the demonstrated need for increased student knowledge of GenAI, librarians can consider integrating concepts of AI literacy into information literacy instruction. It is important for students to be aware of basic information surrounding GenAI to limit its misuse and to prepare them for the future, both in college and in the workforce. In response to the survey results, the author developed a lesson on AI literacy and information literacy for the college's First-Year Experience course, a one-credit course required for all new students. Content included the basics of AI, including how responses are generated, potential problems, possible ethical uses, an AI-inclusive definition of plagiarism, and how to use information literacy skills to evaluate GenAI responses. Working in groups, students applied this information to evaluate a ChatGPT response and answer questions about its authorship, accuracy, evidence, date of publication, and how to fact-check the information. Additional research considerations include gathering data on students' ability to apply information literacy skills to their GenAI use and understanding faculty opinions of acceptable uses of GenAI regarding college coursework.

Limitations

The survey asked questions about students' use of AI for college coursework, which may have included situations where AI is prohibited. Depending on the context, these actions could constitute academic dishonesty and incur disciplinary action. For these reasons, students may have hesitated to participate in the study, to complete the survey, or to answer the survey honestly. To make students feel at ease, the informed consent and several questions emphasized the anonymous and voluntary nature of the survey.

Given the implicit bias present in voluntary data collection, confidence intervals for the above data are not presented. In future work, more rigorous surveying methods can be implemented to better quantify any sampling error in the survey responses. In this work, the authors chose to instead gather a larger sample of data more quickly due to the rapidly changing landscape of GenAI tools.

Conclusion

The results of the survey on undergraduate student experiences using GenAI tools has provided important insight into students' usage of AI for college assignments. Since the release of ChatGPT, there have been many questions concerning how GenAI will affect the future of higher education. This survey provides insight into how undergraduate students are using GenAI. Students' responses were varied and showed a wide range of GenAI knowledge and usage. While some respondents had never used GenAI, others were frequent users. Some students only used GenAI to brainstorm ideas and create outlines, while others discussed paraphrasing and copying GenAI responses in their assignments. Of particular significance are students' comments on the topics of using GenAI as an academic source, the originality of GenAI responses, and how GenAI applies to the definition of plagiarism. Ultimately, survey results show a need for students to have increased knowledge of GenAI, including the areas of evaluating information and using information ethically. This connection between AI literacy and information literacy provides an avenue for librarians to seamlessly address GenAI while teaching core concepts of information literacy.

References

- Acosta-Enriquez, B. G., Arbulu Ballesteros, M. A., Jordan, O. H., Roca, C. L., & Tirado, K. S. (2024). Analysis of college students' attitudes toward the use of ChatGPT in their academic activities: Effect of intent to use, verification of information and responsible use. *BMC Psychology*, 12(1), 1–18. [doi://doi.org/10.1186/s40359-024-01764-z](https://doi.org/10.1186/s40359-024-01764-z)
- Adetayo, A. J. (2023). Artificial intelligence chatbots in academic libraries: The rise of ChatGPT. *Library Hi Tech News*, 40(3), 18–21. <https://doi.org/10.1108/LHTN-01-2023-0007>
- Amani, S., White, L., Balart, T., Arora, L., Shryock, K., Brumbelow, K., & Watson, K. (2023). Generative AI perceptions: A survey to measure the perceptions of faculty, staff, and students on generative AI tools in academia. <https://doi.org/10.48550/arXiv.2304.14415>
- APA Style. (n.d.). *Plagiarism*. APA Style. <https://apastyle.apa.org/style-grammar-guidelines/citations/plagiarism>
- Association of College and Research Libraries (ACRL). (2016). *Framework for Information Literacy for Higher Education*. Association of College and Research Libraries. <https://www.ala.org/acrl/standards/ilframework>
- Chan, C. K. Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International Journal of Educational Technology in Higher Education*, 20(1), 1–25. <https://doi.org/10.48550/arxiv.2305.00280>
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(1), 1–18. <https://doi.org/DOI:10.1186/s41239-023-00411-8>
- Chan, C. K. Y., & Lee, K. K. W. (2023). The AI generation gap: Are Gen Z students more interested in adopting generative AI such as ChatGPT in teaching and learning than their Gen X and millennial generation teachers? *Smart Learning Environments*, 10(1), 1–23. <https://doi.org/10.1186/s40561-023-00269-3>
- Chen, J., Zhuo, Z., & Lin, J. (2023). Does ChatGPT play a double-edged sword role in the field of higher education? An in-depth exploration of the factors affecting student performance. *Sustainability*, 15(24), 1–18. <https://doi.org/10.3390/su152416928>
- Cox, C., & Tzoc, E. (2023). ChatGPT: Implications for academic libraries. *College & Research Libraries News*, 84(3), 99–102. <https://doi.org/10.5860/crln.84.3.99>
- Crompton, H., & Burke, D. (n.d.). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20(1), 1–22.
- Del Castillo, M. S., & Kelly, H. Y. (n.d.). Can AI become an information literacy ally? A survey of library instructor perspectives on ChatGPT. *Works of the FIU Libraries*, 147, 1–22. <https://digitalcommons.fiu.edu/glworks/147/>
- Farrokhnia, M., Banihashem, S. K., Omid, N., & Wals, A. (2024). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*, 61(3), 460–474. Taylor & Francis. <https://doi.org/10.1080/14703297.2023.2195846>
- Frederick, D. (2023). ChatGPT: A viral data-driven disruption in the information environment. *Library Hi-Tech News*, 40(3), 4–10. ProQuest Central Essentials. <https://doi.org/10.1108/LHTN-04-2023-0063>
- Gaffar, H., & Albarashdi, S. (2024). Copyright protection for AI-generated works: Exploring originality and ownership in a digital landscape. *Asian Journal of International Law*, 1–24. <https://doi.org/10.1017/S2044251323000735>
- Guner, H., Er, E., Akçapınar, G., & Khalil, M. (2024). From chalkboards to AI-powered learning: Students' attitudes and perspectives on use of ChatGPT in educational settings. *Educational Technology & Society*, 27(2), 386–404. [https://doi.org/10.30191/ETS.202404_27\(2\).TP05](https://doi.org/10.30191/ETS.202404_27(2).TP05)
- Haensch, A.-C., Ball, S., Herklotz, M., & Kreuter, F. (2023, March 9). Seeing ChatGPT through students' eyes: An analysis of TikTok data. *The Institute of Electrical and Electronics Engineers, Inc. (IEEE) Conference Proceedings*. <https://doi.org/10.1109/BigSurv59479.2023.10486710>
- Halaweh, M. (2023). ChatGPT in education: Strategies for responsible implementation. *Contemporary Educational Technology*, 15(2), 1–11. <https://doi.org/10.30935/cedtech/13036>
- Intelligent.com. (2023, January 23). *Nearly 1 in 3 college students have used ChatGPT on written assignments*. Intelligent. <https://www.intelligent.com/nearly-1-in-3-college-students-have-used-chatgpt-on-written-assignments/>
- James, A., & Hampton Filgo, E. (2023). Where does ChatGPT fit into the Framework for Information Literacy? The possibilities and problems of AI in library instruction. *College & Research Libraries News*, 84(9), 334–341. <https://doi.org/10.5860/crln.84.9.334>
- Kidd, C., & Birhane, A. (2023). How AI can distort human beliefs. *Science*, 380(6651), 1222–1223. <https://doi.org/10.1126/science.adi0248>
- Lo, C. K. (2023). What is the impact of ChatGPT on education? A rapid review of the literature. *Education Sciences*, 13(4), 1–15. <https://doi.org/10.3390/educsci13040410>
- Lo, L. (2023). The CLEAR path: A framework for enhancing information literacy through prompt engineering. *The Journal of Academic Librarianship*, 49(4), 102720–. <https://doi.org/10.1016/j.acalib.2023.102720>

- Lo, L., & Hudson Vitale, C. (2023, May 9). *Quick poll results: ARL member representatives on generative AI in libraries*. Association of Research Libraries. <https://www.arl.org/blog/quick-poll-results-arl-member-representatives-on-generative-ai-in-libraries/>
- Lucchi, N. (2023, August). ChatGPT: A case study on copyright challenges for generative artificial intelligence systems. *European Journal of Risk Regulation*, 1–23. <https://doi.org/10.1017/err.2023.59>
- Lund, B., & Wang, T. (2023). Chatting about ChatGPT: How may AI and GPT impact academia and libraries? *Library Hi Tech News*, 40(3), 26–29. <https://doi.org/10.1108/LHTN-01-2023-0009>
- Microsoft. (2024, January 30). *Global use of generative artificial intelligence (Gen AI) in 2023, by group* [Graph]. Statista. <https://www.statista.com/statistics/1455933/generative-ai-use-worldwide-by-group/>
- MLA Style Center. (n.d.). *Plagiarism and academic dishonesty*. MLA Style Center. <https://style.mla.org/plagiarism-and-academic-dishonesty/>
- Mollman, S. (2023, February 2). *Bill Gates says A.I. like ChatGPT is 'every bit as important as the PC, as the internet'*. Fortune. <https://fortune.com/2023/02/02/microsoft-bill-gates-artificial-intelligence-chatgpt-as-important-as-pc-or-internet/>
- Oldham, J. (2024). ChatGPT: The co-teacher we need? *English Journal*, 113(4). ProQuest Central Essentials. <https://ncte.org/resources/journals/english-journal/>
- OpenAI. (2022, November 30). *Introducing ChatGPT*. OpenAI. Retrieved from <https://openai.com/index/chatgpt/>
- Rahman, M. S., Sabbir, M. M., Zhang, J., Moral, I. H., & Hossain, G. M. S. (2023). Examining students' intention to use ChatGPT: Does trust matter? *Australasian Journal of Educational Technology*, 39(6), 51–71. EBSCOhost Education Source. <https://doi.org/10.14742/ajet.8956>
- Shepherd, Q., & MacLeod, D. (2023). Exploring ChatGPT's potential. *School Administrator*, 80(10), 18–24.
- Sidoti, O., & Gottfried, J. (2023, November 16). *Use of ChatGPT for schoolwork among US teens*. Pew Research Center. Retrieved June 25, 2024, from <https://www.pewresearch.org/short-reads/2023/11/16/about-1-in-5-us-teens-who-heard-of-chatgpt-have-used-it-for-schoolwork/>
- Statista. (2024, February 14). *Expected number of artificial intelligence (AI) powered tools users in the United States from 2020 to 2030 (in millions)* [Graph]. Statista. <https://www.statista.com/forecasts/1451316/us-ai-tool-user-number>
- SUNY FACT². (2023, September 22). *FACT² guide to optimizing AI in higher education*. SUNY FACT² Optimizing AI (Artificial Intelligence) for Teaching and Learning. <https://fact2.suny.edu/wp-content/uploads/GuideAI-TaskGroup-FACT2-101223.pdf>
- Tiwari, C. K., Bhat, M. A., Khan, S. T., Subramaniam, R., & Khan, M. A. I. (2023). What drives students toward ChatGPT? An investigation of the factors influencing adoption and usage of ChatGPT. *Interactive Technology and Smart Education*. <https://doi.org/https://doi.org/10.1108/ITSE-04-2023-0061>
- Tyson, A., & Kennedy, B. (2024, March 26). *Should generative AI programs credit their sources? Many US adults say yes*. Pew Research Center. <https://www.pewresearch.org/short-reads/2024/03/26/many-americans-think-generative-ai-programs-should-credit-the-sources-they-rely-on/>
- Tyson, J. (2023). Shortcomings of ChatGPT. *Journal of Chemical Education*, 100(8), 3098–3101. <https://doi.org/10.1021/acs.jchemed.3c00361>
- University of Oxford. (n.d.). *Plagiarism*. University of Oxford. <https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism>
- Valova, I., Mladenova, T., & Kanev, G. (2024). Students' perception of ChatGPT usage in education. *International Journal of Advanced Computer Science and Applications*, 15(1), 466–473. <https://doi.org/10.14569/IJACSA.2024.0150143>
- Wu, T., He, S., Liu, J., Siqi, S., Liu, K., Han, Q.-L., & Tang, Y. (2023). A brief overview of ChatGPT: The history, status quo and potential future development. *IEEE/CAA Journal of Automatica Sinica*, 10(5), 1122–1136. IEEE Electronic Library (IEL) Journals. 10.1109/JAS.2023.123618
- Xiao, Y., & Zhi, Y. (2023). An exploratory study of EFL learners' use of ChatGPT for language learning tasks: Experiences and perceptions. *Languages*, 8(3), 1–12. <https://doi.org/10.3390/languages8030212>
- Zhu, C., Sun, M., Luo, J., Li, T., & Wang, M. (2023). How to harness the potential of ChatGPT in education? *Knowledge Management & E-Learning*, 15(2), 133–152. <https://doi.org/10.34105/j.kmel.2023.15.008>

Appendix A

Survey

Research Consent Form

You are being asked to participate in a research study conducted by Megan Marchese at Farmingdale State College. You must be 18 years of age or older to participate in this research. The purpose of the study is to understand students' experiences using ChatGPT and other generative AI programs.

If you consent to participate, you will be asked to complete an anonymous survey using the Qualtrics survey platform. Survey questions will include participants' experiences using generative AI programs and opinions on ethical use of generative AI programs for college assignments. The survey will include multiple choice and open-ended questions. The survey will also include demographic questions. Participation should take approximately five minutes.

Although risks associated with this research are no greater than minimal, the survey will ask respondents about the use of AI to plagiarize. Participants may skip any question for any reason. The survey will not ask any personally identifiable information and Qualtrics will be programmed to not collect participants' IP addresses. Further, collected data, including demographic information, will only be reported in aggregate in any dissemination of results.

Benefits of participation in this research include helping the college community better understand students' experiences using generative AI. This information will provide instructors with valuable insight into how this new technology can support student learning. In particular, survey responses will inform librarians' teaching pedagogy in regard to helping students ethically and responsibly use AI throughout the process of conducting research.

Information will be collected anonymously. Participation in this study is voluntary. You may choose not to participate in the study or to drop out at any time without consequence. Participants may skip any question for any reason. If you have any questions about the research, contact the Principal Investigator or the college's IRB.

1. What is your major? _____
2. What is your class standing?
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
3. What is your age?
 - a. 18-19
 - b. 20-21
 - c. 22-23
 - d. 24-25
 - e. >25
4. What is your gender identity? _____
5. What is your race/ethnicity identity? (Select all that apply):
 - a. American Indian or Alaska Native (e.g., Navajo Nation, Blackfeet Tribe, Inupiat Traditional Gov't., etc.)
 - b. Asian or Asian American (e.g., Chinese, Japanese, Filipino, Korean, South Asian, Vietnamese, etc.)

- c. Black or African American (e.g., Jamaican, Nigerian, Haitian, Ethiopian, etc.)
 - d. Hispanic or Latino/a (e.g., Puerto Rican, Mexican, Cuban, Salvadoran, Colombian, etc.)
 - e. Middle Eastern or North African (e.g., Lebanese, Iranian, Egyptian, Moroccan, Israeli, Palestinian, etc.)
 - f. Native Hawai'ian or Pacific Islander (e.g., Samoan, Guamanian, Chamorro, Tongan, etc.)
 - g. White or European (e.g., German, Irish, English, Italian, Polish, French, etc.)
 - h. My race or ethnicity is best described as: _____
 - i. Prefer not to say
6. How often do you use ChatGPT or other generative AI tools?
- a. Frequently
 - b. Often
 - c. Sometimes
 - d. Rarely
 - e. Never

The following two questions (6a–6b) were displayed to respondents who answered 'e' in Question 6, indicating that they have never used GenAI tools:

- 6a. I have heard of ChatGPT or other generative AI tools.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
- 6b. I am aware of the function of ChatGPT or other generative AI tools.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
7. Which generative AI tools have you used for any purpose? (Select all that apply):
- a. ChatGPT
 - b. Dall.E 2
 - c. Midjourney
 - d. Stable Diffusion
 - e. Perplexity AI
 - f. Gen-1 Runway
 - g. Elicit
 - h. Scite
 - i. Raxter
 - j. Invideo
 - k. CodeT5
 - l. Tabnine

- m. AIVA
 - n. Soundful
 - o. [Murf.ai](#)
 - p. Other: _____
8. Identify how you have used ChatGPT or other generative AI tools. (Select all that apply):
- a. Writing-based college assignments, such as research papers, essays, or long-form questions
 - b. Non-writing college assignments, such as short answers or solutions
 - c. Personal use

The following eight questions (9–16) were displayed to respondents who answered ‘a’ and/or ‘b’ in Question 8, indicating that they have used GenAI to complete college assignments:

9. Which generative AI tools have you used to complete college assignments? (Select all that apply):
- a. ChatGPT
 - b. Dall.E 2
 - c. Midjourney
 - d. Stable Diffusion
 - e. Perplexity AI
 - f. Gen-1 Runway
 - g. Elicit
 - h. Scite
 - i. Raxter
 - j. Invideo
 - k. CodeT5
 - l. Tabnine
 - m. AIVA
 - n. Soundful
 - o. [Murf.ai](#)
 - p. Other: _____
10. Identify how you have used ChatGPT or other generative AI tools for college assignments. (Select all that apply):
- a. To identify a topic for a research paper or other writing assignment
 - b. To select keywords or search terms to use when looking for information on my topic
 - c. To develop a thesis statement or research question
 - d. To create an outline for a writing assignment
 - e. To locate sources to cite in a writing assignment
 - f. To format citations in a writing assignment (e.g.: MLA, APA, Chicago Citation styles)
 - g. To find answers for an assignment
 - h. To copy and paste AI responses for one or more sentences of a writing assignment

The following three questions (10a–10c) were displayed to respondents who answered ‘h’ in Question 8, indicating that they have copy and pasted GenAI responses for college assignments:

- 10a. I have copied and pasted ChatGPT or other generative AI responses for 25% or more of an assignment.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
 - 10b. I have copied and pasted ChatGPT or other generative AI responses for 50% or more of an assignment.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
 - 10c. I have copied and pasted ChatGPT or other generative AI responses for 75% or more of an assignment.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
 11. I check generative AI responses for accuracy.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
 12. I edit generative AI responses in my own words before using them in a college assignment.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
 13. I have found generative AI to be useful in completing college assignments.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
 14. Explain your answer to the previous question:
-

15. I consider my use of generative AI to be ethical.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
16. Explain your answer to the previous question:

The following six questions (17–22) were displayed to all respondents of the survey, regardless of their experience using GenAI:

17. Using generative AI to complete college assignments is considered plagiarism.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
18. Explain your answer to the previous question:

19. I have learned how to use generative AI as part of my coursework.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
20. Using generative AI tools should be incorporated into the college curriculum.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree nor disagree
 - d. Disagree
 - e. Strongly disagree
21. In what ways, if any, should colleges teach students how to use generative AI? (Select all that apply):
 - a. In specific courses (identify courses here): _____
 - b. In library instruction sessions (e.g., using ChatGPT to develop a topic for a research paper)
 - c. Workshops
 - d. Asynchronous training
 - e. Other: _____
 - f. Colleges should not teach students how to use generative AI
22. Share any additional thoughts you have about using ChatGPT and other generative AI programs to complete college assignments:
