

# Understanding the Generative AI Divide: Faculty and Student Perspectives in Higher Education

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## **Abstract**

As generative artificial intelligence (GenAI) tools rapidly transform educational landscapes, higher education institutions face the critical challenge of developing effective policies and guidelines for their integration. However, little empirical research has examined actual GenAI usage patterns, perceptions, knowledge assessments, and training needs among faculty and students in U.S. universities. This study presents findings from a comprehensive survey of 3,164 students and 166 faculty members at a large R1 university in the southeastern United States. Results indicate that while 88% of students are familiar with GenAI concepts, only about a quarter currently use these tools for academic work, and 76% have received no formal classroom instruction on their use. Faculty demonstrate comparable familiarity (mean 4.5/5.0) but report substantial support needs, with 65% requesting assistance in creating AI-resistant assessments and 63% seeking guidance on effective GenAI integration in teaching. Before universities can implement effective GenAI guidelines and policies, they must first understand the current landscape of usage, perceptions, and training needs among their academic communities.

*Keywords:* Generative AI, GenAI, higher education, faculty development, student learning, educational policy, artificial intelligence

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The rapid emergence of generative artificial intelligence (GenAI) technologies has created unprecedented challenges and opportunities within higher education. No prior technology has moved with the speed with which artificial intelligence (AI) platforms are progressing. Chat-based tools such as ChatGPT, Claude, Gemini, and other large language models (LLM) are poised to fundamentally alter how students approach learning tasks and how faculty conceptualize teaching and assessment (“7 Things You Should Know About Generative AI,” 2023; Basgen, 2023). Yet despite the transformative potential of these technologies, to date, little empirical research has been conducted to understand how GenAI is being used within U.S. universities, and how faculty and student perceptions and use differ. Calls for more information and guidance is prevalent among those in higher education (Swindell et al., 2024; Tyton Partners, 2024; Brennan et al., 2025).

This study reports on an ongoing research project that is tracking faculty and student reactions to and uses of GenAI in teaching and learning at the University of Central Florida (UCF). UCF is the largest university in the Florida State University System with 70,674 students as of Fall 2025. UCF is classified as an R1 school with 250 degree programs and 13 colleges. The student body is diverse with 58.7% minority students and an average student age of 23.3. UCF has a strong technology focus with nearly 60% of student credit hours being in online and blended courses. Ninety-one percent of all UCF students take at least one online or blended course and 86% of UCF students take at least one fully online course. As a school that began as Florida Technological University, and often recognized as one of the top 10 in innovation among public universities (<https://www.ucf.edu/>), both students and faculty are well-versed in using the latest technologies.

UCF’s Artificial Intelligence for All initiative guides the campus in teaching and learning with AI (<https://aiforall.ucf.edu/>). The university provides Microsoft CoPilot to all students and employees as a protected “walled-garden,” allowing them to use GenAI in a controlled, closed system. In addition, both the Faculty Center for Teaching and Learning, and the Center for Distributed Learning provide courses related to GenAI use for faculty and students. Verbiage and guidance for course syllabi are provided with suggestions on how to address both GenAI use by students and GenAI use by faculty. Ongoing instruction and conversations are also regularly occurring to identify issues and address faculty concerns with regards to GenAI.

In Fall 2024, the Division of Digital Learning’s Research Initiative for Teaching Effectiveness began pilot surveys of both faculty and students to capture GenAI use of AI on campus. In this paper we report on our Spring 2025 surveys of faculty and students illustrating the most reported attitudes and uses of this revolutionary technology in teaching and learning on our campus.

## Literature Review

As generative AI (GenAI) tools become increasingly embedded in academic life, understanding how students and faculty are using and perceiving them has become a pressing priority for higher education. Yet despite the growing volume of scholarship on this topic, significant gaps remain in what is known, particularly regarding how student and faculty perspectives compare, and whether findings from discipline-specific or single-institution studies

reflect broader patterns across American higher education. This literature review synthesizes studies published between June 2025 and February 2026 to examine what the current evidence base reveals about GenAI use and perceptions at American colleges and universities.

### ***How Students Are Using Generative AI***

How students are using GenAI in their academic work is among the most pressing yet underexplored questions facing higher education today, and only seven of the 24 studies reviewed provided direct insight into these patterns. Across these studies, the two most commonly reported uses of GenAI were writing support and understanding content. Four of the seven studies identified writing support as a primary use. Golding et al. (2025) found that writing was the most common task for which students used generative AI in college (32%), with use most concentrated in humanities courses; related tasks such as generating ideas and starting essays also emerged as common uses in the study's qualitative analysis. Similarly, Onal et al. (2025) found that across disciplines, students commonly used ChatGPT for academic writing support tasks such as brainstorming, outlining, editing, and paraphrasing. Maxwell et al. (2025), drawing on a sample of 460 students across institutions in 41 states, reported that writing technical documents was among the top academic uses (38%), and Hazari (2025) found that marketing students planned to use ChatGPT primarily for writing, research, and brainstorming.

Using GenAI to support learning and content understanding was identified in four of the seven studies as well. Onal et al. (2025) found students often turned to ChatGPT as a supplemental resource when instructor access was limited, Maxwell et al. (2025) reported that asking general knowledge questions was the most common academic use (52.2%), Divekar et al. (2025) noted that students most frequently used ChatGPT to create and understand academic content, and Wilson et al. (2025) found that students described one of their primary uses as “kinda like a tutor” for academic support. While these findings span a range of institutional contexts and disciplines, they consistently point to writing support and learning support as among the most common academic functions students report for GenAI tools, though additional research across a broader range of populations will be needed to determine how generalizable these patterns are.

A recurring tension across the studies is the gap between students' reported use of GenAI and their own ethical assessments of that use. Golding et al. (2025) found that 56% of students perceived using generative AI as a form of academic cheating, yet 8% admitted to using it anyway—a pattern Stone (2025) further illuminated by finding that 41% of students had used AI in explicitly banned ways and 59% in ambiguous circumstances. Stone (2025) also found that students who overestimated how many peers were cheating with AI were more likely to engage in that behavior themselves, pointing to a social norming dynamic that may accelerate non-sanctioned use. Hazari (2025) found that while 75% of marketing students believed ChatGPT should be allowed in courses, academic dishonesty and technology dependence were their top perceived drawbacks. Maxwell et al. (2025) reported that students' ethical awareness scores were moderate ( $M = 3.72/5$ ), suggesting that students had a foundational but not robust understanding of the ethical dimensions of GenAI use. Compounding this, Slepchuk and John (2025) found that conflicting policies across university, course, and instructor levels created inconsistency in how students understood and navigated guidelines around AI use. Stone (2025) further found that students whose professors actively integrated GenAI into their courses reported higher usage

across all categories, including banned use, suggesting that faculty instructional choices directly influence student behavior regardless of institutional policy. These findings suggest that student use of GenAI is shaped, at least in part, by perceptions of peer behavior, the consistency of institutional and course-level policies, and the degree to which faculty actively integrate GenAI into their teaching—factors that policy developers may need to consider alongside questions of access and AI literacy.

### ***Student and Faculty Perceptions of GenAI***

Across the studies reviewed, perceptions of GenAI in higher education reflect a complex and uneven landscape: students tend to approach these tools with cautious optimism, while faculty attitudes range from guarded acceptance to outright negativity, with concerns about academic integrity, overreliance, and critical thinking running consistently through both groups. Maxwell et al. (2025) found that the majority of students felt comfortable using GenAI and recognized its potential to enhance productivity and academic success, yet also reported meaningful concerns about ethics, privacy, and negative educational impact. Hazari (2025) described students as expressing “guarded enthusiasm,” acknowledging ChatGPT’s academic utility while identifying academic dishonesty, technology dependence, and information inaccuracy as significant drawbacks. Wilson et al. (2025) captured this duality through students’ own metaphor, describing AI as “like a knife”—a tool with both beneficial and harmful potential depending on how it is wielded. Walker et al. (2026) further corroborated this pattern, finding that perceived utility was a significant predictor of GenAI use frequency among social work students, and that AI knowledge was a second independent predictor, explaining 21.4% of the variance in use frequency. These findings suggest that both students’ recognition of GenAI’s practical value and their familiarity with the technology meaningfully drive adoption. From the faculty perspective, Malik et al. (2025) found that academicians across three continents viewed ChatGPT favorably for its ability to enhance productivity, support personalized instruction, and support research activities, but raised parallel concerns that GenAI use in research could diminish writing quality through reduced practice and “text dumping,” stifle critical thinking and originality, and promote only a superficial understanding of research topics and methodologies. Blomquist et al. (2025), studying nursing students and faculty at a single U.S. institution, found that both groups held similarly moderate levels of confidence and perceived helpfulness regarding GenAI, though faculty rated its importance for future careers significantly higher than students did, most likely due to faculty’s broader professional vantage point. Taken together, these findings suggest that both students and faculty are grappling with the same fundamental tension: GenAI offers genuine utility, but its unrestricted use may come at a cost to deeper learning.

Important differences emerge between how students and faculty perceive the scale and frequency of student GenAI use, with faculty consistently overestimating student engagement. Saeli et al. (2026) found that instructors overestimated student GenAI use on 84% of parallel survey items, with the largest gap on overall frequency of use, where students reported a mean of 1.83 on a 6-point scale compared to instructors’ estimate of 3.19. Instructors also overestimated students’ trust in GenAI feedback and students’ preference for GenAI over human sources of help such as tutors, writing instructors, and peers. Slepchuk and John (2025) similarly found that marketing educators overestimated their students’ current AI use, even as both groups agreed that use would increase substantially in the future. Kim et al. (2025) found that while students and

faculty held similar behavioral intentions toward GenAI and comparable usage rates, with approximately 70% of both groups using GenAI tools less than once per week, students found GenAI easier to use and more enjoyable, while faculty who did use it had incorporated it more routinely into their workflow. Angehr and colleagues (2026), in a study of more than 3,000 faculty, reported that 77% had used GenAI in their professional role, yet 47% of those users reported using it for only one or two purposes, and 45% held negative overall sentiment toward GenAI in higher education, with non-users particularly more negative (69%). These figures suggest that low faculty engagement with GenAI may reflect resistance as much as inexperience, a distinction with implications for how professional development efforts are designed. Students were also significantly more optimistic than faculty about GenAI's potential to improve academic performance, though both groups tended to view it as having more negative than positive effects on learning competencies such as critical thinking, problem-solving, and intrinsic motivation. These findings suggest that faculty assumptions about student behavior may not be well-calibrated, which has direct implications for how policies and course-level guidelines are designed.

The studies paint a complicated picture of how students perceive GenAI in relation to academic integrity, with stated values not always matching reported behavior. Lund et al. (2025) found that 96% of students were aware of their institution's academic integrity policies, and 84% viewed using ChatGPT to write an entire paper as a major form of misconduct—a level of severity comparable to copying from another student. However, students drew meaningful distinctions based on scale, with only 51% viewing AI-generated paragraphs as major misconduct and 60% not viewing grammar and spell-checking tools such as Grammarly as misconduct at all. Stone (2025) extended this picture by revealing that actual student behavior does not always align with these stated values: 41% of students reported using AI in explicitly banned ways, and 59% had used it in ambiguous circumstances. Students also tended to overestimate how much their peers were cheating with AI, and this overestimation, along with general AI familiarity and excitement, predicted their own cheating behavior. Among nursing students, Blomquist and colleagues (2025) found that 73% of students reported concern about academic misconduct accusations as the primary barrier to student AI adoption. This finding suggests that integrity anxieties not only shape how students think about GenAI but whether they use it at all. Kim et al. (2025) found that approximately 80% of both students and faculty agreed that GenAI should not be banned outright and that universities should develop formal policies.

Faculty adoption of GenAI appears to be shaped less by technical confidence than by trust and institutional culture. Shata and Hartley (2025), in a study of social sciences and humanities faculty at two U.S. universities, found that perceived usefulness was a far stronger predictor of GenAI adoption than perceived ease of use, and that trust emerged as the single most significant predictor across all adoption-related constructs. Social reinforcement—the extent to which colleagues and professional networks normalize GenAI use—also significantly predicted faculty attitudes and behavioral intentions, suggesting that institutional culture plays an important role in whether faculty engage with these tools at all. Malik et al. (2025) reinforced this point, with faculty participants emphasizing that effective ChatGPT integration in teaching requires training and that traditional pedagogical approaches would need to evolve. The importance of clear institutional communication was further illustrated by Blomquist et al. (2025), who found that although 77% of nursing faculty addressed AI use in their courses, one-

third of students remained uncertain about what uses were permitted and 15% believed AI was universally prohibited, a policy communication gap suggesting that even well-intentioned faculty messaging falls short without formalized institutional policies. Students in Wilson et al. (2025) perceived faculty as polarized in their opinions of AI and called for both faculty development and more nuanced institutional policies in lieu of blanket prohibitions. Across these studies, perceptions of GenAI are not fixed but are actively shaped by faculty and institutional messaging, peer influence, and the extent to which both students and faculty are supported in navigating this technology.

## Methodology

Survey development began with a comprehensive literature review to identify key constructs related to GenAI usage, familiarity, and perceptions that were reported across higher education institutions. This provided a foundation which was tailored for our college faculty and student populations, with questions gauging their familiarity with GenAI concepts, tools, and functions; understanding of GenAI limitations; ethical considerations and academic integrity; current usage patterns in academic work; perceptions of GenAI's impact on learning; and perceived training and support needs.

The research was conducted in two phases. In Fall 2024, pilot questionnaires were administered to 677 students and 79 faculty members. Surveys were administered to students and faculty via the Instructure Canvas main landing page (dashboard) with timing occurring after spring break and midterms to avoid conflicting priorities. This also gave students and faculty enough experience with the semester courses to both have experience with GenAI and have formed opinions regarding its use in instruction. Faculty are required to use the Canvas gradebook, irrespective of course modality, so students and faculty frequent the platform and are comfortable with this method of receiving campus-wide announcements. Following data collection, the questionnaires underwent iterative review and revision, informed by findings from the pilot study. This refinement process ensured that items were clear, relevant, and appropriate for the target populations and that we were able to incorporate any campus or GenAI updates into questions. The refined questionnaires were then deployed in Spring 2025, with 3,164 students and 166 faculty members responding.

### *Participants*

#### Students

The student sample ( $n = 3,164$ ) provided a range of student demographic perspectives, with 63% enrolled full-time, 58% upper-level undergraduates, 54% first time-in-college, 31% first-generation, and 34% Pell-eligible. The university has 13 colleges, and the top three colleges represented were Sciences (30%), Engineering and Computer Science (26%), and Arts and Humanities (17%).

#### Faculty

The faculty sample ( $n = 166$ ) had an average age of 49 years and 17 years of teaching experience. Seventy-eight percent (78%) had taught online or blended courses in the past academic year, and 72% primarily taught undergraduate students. Faculty ranks included Professors (36%), Instructors (22%), Lecturers (21%), and Adjuncts (15%), with the top colleges

represented being Arts & Humanities (27%), Community Innovation & Education (26%), and Sciences (18%).

## Results

### *Familiarity and Understanding of GenAI*

As seen in Table 1, both students and faculty demonstrated high levels of familiarity with GenAI concepts, though significant differences emerged in comfort and application. On a Likert scale of *strongly agree* (5) to *strongly disagree* (1), students reported strong familiarity with GenAI concepts ( $M = 4.3$ ,  $SD = 1.0$ ) and awareness of different tools and functions ( $M = 4.2$ ,  $SD = 1.0$ ). Faculty showed slightly higher familiarity ( $M = 4.5$ ,  $SD = 0.7$ ) and comparable awareness ( $M = 4.2$ ,  $SD = 0.8$ ).

Faculty and students both reported less comfort with using GenAI. However, comfort levels revealed important disparities between faculty and students. Faculty reported significantly higher comfort using GenAI tools ( $M = 3.7$ ,  $SD = 1.2$ ) compared to students ( $M = 3.2$ ,  $SD = 1.4$ ,  $p < .001$ ). Interestingly, students found learning GenAI tools significantly simpler ( $M = 3.7$ ,  $SD = 1.0$ ) than faculty ( $M = 3.4$ ,  $SD = 1.0$ ,  $p < .001$ ), which may be reflective of students' overall comfort with technology or flexibility to learn new skills. Both groups reported generally lower ratings with questions that implied more knowledge or use of GenAI.

**Table 1**

*Familiarity with GenAI Tools & Functions (Student  $n = 3,144$ ; Faculty  $n = 167$ )*

Familiarity	Student		Faculty	
	Mean	Standard Deviation	Mean	Standard Deviation
Familiar with the concept of GenAI**	4.3	1.0	4.5	0.7
Aware of different GenAI tools, technology, and functions	4.2	1.0	4.2	0.8
Learning how to use GenAI tools is simple**	3.7	1.0	3.4	1.0
I know the limitations of GenAI	3.7	1.2	3.9	1.1
Comfortable using GenAI tools**	3.2	1.4	3.7	1.2
I can think of new uses for GenAI**	3.2	1.2	3.6	1.1

\*\*  $p < .001$

Both groups showed moderate understanding of GenAI limitations (Table 2), with faculty demonstrating better perceived recognition of privacy and security concerns ( $M = 4.3$ ,  $SD = 0.8$ ) compared to students ( $M = 4.0$ ,  $SD = 1.1$ ,  $p < .001$ ). Faculty showed greater perceived awareness of the difficulty in detecting AI-generated content, both for written work ( $M = 3.3$ ,  $SD = 1.0$ ) and visual content ( $M = 3.1$ ,  $SD = 1.0$ ), compared to students ( $M = 2.9$ ,  $SD = 1.1$ ;  $M = 2.4$ ,  $SD = 1.2$ , respectively,  $p < .001$ ); although both students and faculty had lower confidence in their ability detecting this content.

**Table 2***Understanding of GenAI Limitations (Student n = 3,144; Faculty n = 167)*

	Student		Faculty	
	Mean	Standard Deviation	Mean	Standard Deviation
GenAI has limitations in its ability to handle complex tasks	4.1	0.9	4.1	0.8
GenAI systems raise privacy and data security concerns**	4.0	1.1	4.3	0.8
GenAI systems can perpetuate bias or discrimination*	3.8	1.1	4.1	1.0
GenAI systems consistently produce factually accurate output	3.6	1.1	3.7	1.0
GenAI consistently gives same output with same prompt**	3.4	1.1	3.8	1.1
It can be difficult to tell if written content was created by AI**	2.9	1.1	3.3	1.0
It can be difficult to tell if art/image content was created by AI**	2.4	1.2	3.1	1.0

\*  $p < .01$ ; \*\*  $p < .001$ ***Current Usage Patterns***

Perhaps the most striking finding was that 48% of students indicated that they are not currently using GenAI for academic work, despite high levels of familiarity with the technology. Similar low usage patterns were reported by Kim and colleagues (2025). Among students reporting not using GenAI in their academics (Table 3), the most reported (very often/often) applications were: assisting with studying (26%), brainstorming ideas (26%), editing papers and essays (26%), and completing course assignments (26%). Less frequent uses included summarizing information (21%), researching topics (21%), and writing papers and essays (21%).

Students who reported that they do not use GenAI for academic work were distributed across colleges, with the highest concentrations in Sciences (22%), Arts & Humanities (16%), and Engineering and Computer Science (10%). Among all students, 88% were familiar with GenAI. Notably, among non-users, 83% indicated that they were familiar with GenAI concepts and 80% were aware of different tools and functions, but only 22% reported being comfortable using GenAI tools.

**Table 3***Students' Self-Reported Use of GenAI in Academic Work*

AI Uses	<i>n</i>	Very Often/ Often	Sometimes/ Rarely	Never
Assisting with studying	2,818	26%	23%	52%
Brainstorming ideas	2,810	26%	27%	47%
Editing papers/essays	2,813	26%	27%	47%
Completing course assignments	2,806	26%	23%	52%
Summarizing information	2,808	21%	26%	53%
Researching topics	2,813	21%	24%	52%
Writing papers/essays	2,817	21%	24%	52%

Among students who use GenAI academically, the primary reported motivations for doing so were working more efficiently (42%), improving work quality (41%), and developing academic skills (37%). This suggests that students may view GenAI primarily as a productivity and enhancement tool rather than a replacement for their own thinking.

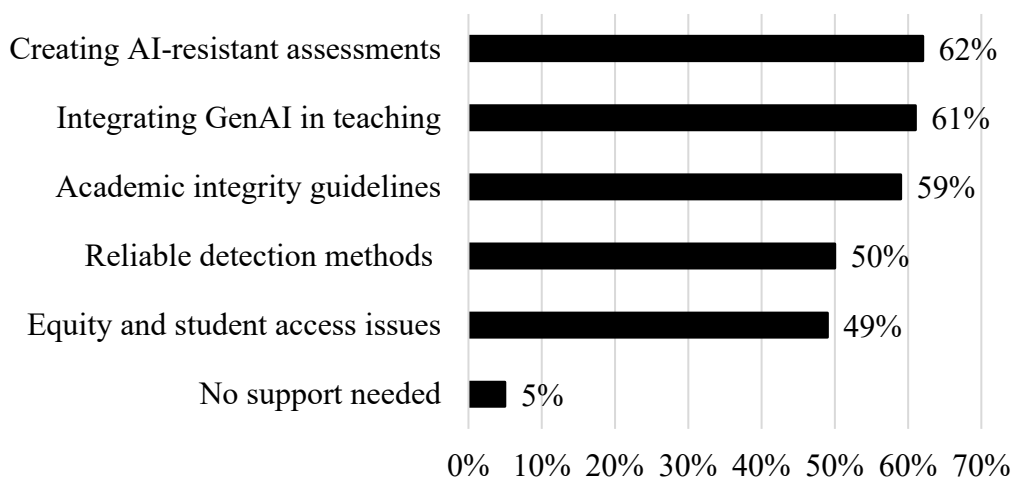
***Faculty Implementation and Support Needs***

Faculty implementation of GenAI in their courses showed considerable variation. Only 33% of responding faculty reported encouraging students to explore GenAI tools in all their courses, while 48% of students reported never being encouraged to explore these tools. Similarly, only 18% of faculty taught students how to use GenAI tools in all their courses, while 76% of students reported never receiving such instruction.

A highly addressed topic was GenAI ethics. While 40% of faculty reported discussing GenAI ethics in all their courses, 43% of students reported never encountering the topic, suggesting that coverage remains inconsistent and that a substantial portion of students are not being reached.

Faculty reasons for not encouraging or teaching GenAI cited several key barriers: faculty lack of comfort with the technology (42%), opposition to student use (41%), cheating concerns (39%), and the belief that foundational skills should be developed before using AI (36%). Time constraints (25%) and perceived lack of value (18%) were less reported factors.

Faculty support needs for GenAI training and guidance were both substantial and specific, as illustrated in Figure 1. Only 5% of faculty indicated they needed no additional support—meaning the vast majority identified at least one area where they wanted guidance. The most commonly requested training needs were creating AI-resistant assessments that require original student thinking (62%); effective methods for incorporating GenAI into their teaching (61%); academic integrity guidelines, including policies for appropriate student use and attribution of AI-generated content (59%); reliable methods for detecting student cheating (50%); and addressing equity and access concerns related to GenAI use in the classroom (49%).

**Figure 1***Top Areas Faculty Request Additional Supports****Policy and Guidelines***

Faculty course policies regarding GenAI showed considerable variation and uncertainty. The most common approach was requiring citation/documentation for GenAI use (34%), followed by having no formal policy (29%). Twenty-four percent (24%) prohibited GenAI entirely, while only 4% allowed its free use.

Students strongly supported transparent communication from faculty about GenAI policies, with 75% believing course syllabi should include both guidelines on acceptable student use and information on how professors might utilize GenAI. This alignment between faculty communication methods (65% include policies in syllabi) and student preferences suggests that university messaging regarding syllabi verbiage on GenAI policies has been impactful.

***Perceptions of Impact and Academic Integrity***

Students and faculty differed greatly in their perspectives on GenAI's impact on learning. Students responded clearly above the neutral midpoint ( $M = 4.0$ ,  $SD = 1.1$ ), indicating genuine optimism about GenAI's potential. Faculty, however, fell below neutral ( $M = 2.8$ ,  $SD = 1.1$ ), reflecting a more skeptical or cautious stance. This difference of 1.2 points was statistically significant ( $p < .001$ ). Student optimism may stem, in part, from students' ability to distinguish between appropriate and inappropriate uses of GenAI and embracing it as a legitimate learning tool for tasks like brainstorming, studying, and editing, while still recognizing its misuse in high-stakes assessments. Regarding academic integrity, students showed a sophisticated understanding of when GenAI use might constitute cheating. The highest percentages viewed GenAI use as cheating or plagiarism when used for in-class exams/quizzes (84%), writing complete papers (81%), and take-home exams/quizzes (74%). However, students were much less likely to view GenAI as inappropriate for brainstorming (18%), serving as a study assistant (17%), or editing papers (29%).

Both students and faculty recognized the growing importance of GenAI in the workforce, though faculty tended to rate each item more highly than students. As illustrated in Table 4, the

most strongly endorsed item among students was that knowing how to use GenAI will be an important skill in the workforce ( $M = 3.4, SD = 1.4$ ), followed by anticipated personal use of GenAI in the future ( $M = 3.2, SD = 1.5$ ). Faculty agreed even more strongly on both points ( $M = 4.2, SD = 1.0$  and  $M = 3.9, SD = 1.1$ , respectively), suggesting that those already in professional roles may have a clearer sense of the magnitude for which GenAI is reshaping the workplace. While students acknowledged some belief that GenAI would improve their work ( $M = 2.8, SD = 1.4$ ) and benefit humanity ( $M = 2.6, SD = 1.3$ ), both ratings fell below the scale midpoint, suggesting a degree of uncertainty. This contrasts with faculty who were modestly more positive on both counts ( $M = 3.4$  and  $M = 2.9$ , respectively).

**Table 4**

*General Opinions of GenAI (Student  $n = 2,538$ ; Faculty  $n = 148$ ).*

Opinions	Student		Faculty	
	Mean	Standard Deviation	Mean	Standard Deviation
Knowing how to use GenAI will be an important skill in the workforce**	3.4	1.4	4.2	1.0
I think I will use GenAI technology in the future**	3.2	1.5	3.9	1.1
I believe that GenAI will improve my work**	2.8	1.4	3.4	1.2
I think GenAI technology is positive for humanity*	2.6	1.3	2.9	1.2
I think many jobs in my field will be negatively impacted by GenAI*	2.4	1.2	2.7	1.2

\*  $p < .01$  \*\*  $p < .001$

### **Main Benefits of GenAI**

Both faculty and students were asked to report what they believe are the main benefits of Generative AI in academia. The student survey, administered first, was an open-ended question. Because of the time-consuming nature of thematic analysis of open response questions, a multiple response question was provided for faculty that included top themes from the previous faculty survey, along with opportunities for faculty to include “other” options, as needed. Student responses included 2,089 unique respondents. Responses were thematically coded where one student response could include multiple themes, if they mentioned multiple benefits in their response. Faculty responses included 142 unique respondents, with multiple (check-all-that-apply) responses possible. Sixty-six percent (66%) of faculty indicated that GenAI increased productivity or saves time, 58% believed that it enhanced information access, 52% perceived it was on the cutting edge of technology, and 30% saw increased teaching effectiveness as a benefit. The top benefits of GenAI themes from the student responses were provided clarification/more detail on topics ( $n = 376$ ), utilize GenAI for studying ( $n = 232$ ), brainstorming ( $n = 209$ ), saves time/speed of information received from AI ( $n = 201$ ), editing/grammar/spelling ( $n = 186$ ), and automate repetitive tasks ( $n = 109$ ).

### ***Main Challenges of GenAI***

Additionally, faculty and students were asked their perceptions regarding the main challenges of GenAI. Similar to the benefits format, the student question was open-ended with 2,148 unique responses that were thematically coded; the faculty survey was “select all that apply” with 142 faculty respondents. Eighty-three percent (83%) of faculty indicated using AI to bypass thinking was a challenge, as well as 82% answered regarding ethical concerns (e.g., biased algorithms, fairness in access), 76% indicated AI demonstrated inaccurate output, and 70% selected privacy concerns (e.g., data privacy, intellectual privacy). The top challenges of GenAI themes from the student responses were inaccurate output ( $n = 725$ ), cheating/plagiarism/academic integrity ( $n = 550$ ), using AI to bypass thinking ( $n = 482$ ), overreliance on GenAI ( $n = 276$ ), and GenAI diminishes creativity ( $n = 200$ ).

## **Discussion**

With the rapid growth of Generative AI use in higher education, we set out to establish longitudinal research examining student and faculty perceptions and uses of this technology, specifically focused on teaching and learning. This study provided the foundation of our baseline data for measuring the growth and impact of GenAI on instruction at our institution. While our research was intended to inform faculty development and support structures on our campus, our findings may help inform others in the field. Several findings were particularly interesting.

### ***The Familiarity-Usage Paradox***

The substantial gap between familiarity and use of GenAI among students was surprising. Although 88% of students reported strong familiarity with GenAI concepts, nearly half (48%) reported that they were not currently using these tools for academic work. This challenges a common assumption that students are embracing GenAI and heavily using it for their coursework, aligning with prior research and finding similar low usage among students (Kim et al.’s, 2025; Shaw et al., 2025). Uncertainty and a lack of comfort (only 22% of student non-users reported feeling comfortable with GenAI) may moderate their use of the technology.

Faculty also indicated high familiarity with AI, yet only a minority reported systematically integrating GenAI into their teaching. Barriers such as concern regarding student cheating, comfort with the technology, and foundational skill development in discipline-specific uses of GenAI impact their use. Concerns focused on students’ dependency with AI as well as its impact on their original thought and critical thinking. Recent research by College Board researchers found similarly that 45% of faculty were negative regarding GenAI use in higher education, with negative attitudes varying by faculty use of AI, discipline, and institutional selectivity (Angehr et al., 2026). Prior adoption research historically points to perceived usefulness, trust, and institutional culture as being predictors of implementation of a technology as opposed to awareness alone (Davis, 1989; Venkatesh & Davis, 2000; Rogers, 2003).

### ***Diverging Views on GenAI’s Impact on Learning***

Students rated GenAI’s potential impact on learning highly ( $M = 4.0$ ), while faculty were significantly lower in their views ( $M = 2.8$ ). This mirrors prior research findings (e.g., Kim et al., 2025; Slepchuk & John, 2025) and may be impacted by students’ experience in using GenAI as an immediate support tool, where faculty tend to focus on its long-term impact on students’

critical thinking and cognitive development. This gap indicates the need for both faculty development and guidance regarding GenAI's uses but also points to the need for clear course policy guidelines. The disparity between student and faculty views can result in complications when faculty restrict what students view as legitimate learning support tools, or do not clearly articulate to students what they view as valid concerns and restrictions around GenAI use. Mixed or extreme variation across courses and faculty can present students with a challenge when one course embraces appropriately depicted GenAI use, and another outlaws it entirely. To ameliorate confusion, clear, detailed guidance needs to be provided in course syllabi campuswide so that there is no miscommunication with varying course requirements and students understand academic misconduct versus appropriate use. Faculty development and support units need to be aligned with recommendations for reporting GenAI guidelines to students through the syllabus and their instructional messages.

### ***Students as Strategic Users of GenAI***

Students' academic uses of GenAI were sophisticated, with clear distinctions between task context and risks involved. For example, the majority of students viewed GenAI use in high-stakes assessments such as exams or writing full papers as cheating. However, less than 20% viewed using GenAI for lower-stakes brainstorming, editing, or as a studying tool as inappropriate. This supports Lund et al.'s (2025) findings and suggests that students are applying a lens of academic integrity based on context to their use of GenAI. This also reiterates the need for context-specific guidelines for students, presented in course syllabi, to ensure that their beliefs align with the course requirements. It further points to the need for context-specific faculty development to ensure that faculty understand the complexity with which students are viewing the use of GenAI.

Both students and faculty perceive the workforce relevance of GenAI with 52% (M=3.4) of students and 80% (M=4.2) of faculty believing that GenAI skills will be important in the workforce. As faculty feel more strongly about AI's future workplace relevance for their students, this may be the future bridge that allows hesitant faculty to strategically integrate the technology into their instruction.

### ***Faculty Concerns and Development Needs***

Faculty expressed a desire for GenAI guidance and support, with only 5% indicating they did not need additional support. A large percentage of faculty mentioned a need for assistance on designing AI-resistant assessments, integration strategies, and addressing academic integrity issues. While overall GenAI literacy is valuable, these findings indicate targeted professional development is needed focusing on pedagogical and policy issues related to GenAI.

One of the most notable findings was the misalignment of faculty implementation of GenAI in their courses and student experience with its use. While 33% of faculty indicated they were encouraging GenAI exploration in all their courses, nearly half (48%) of students indicated they were never encouraged to do so by faculty. Similarly, 18% of faculty reported that they teach GenAI contextual use in their courses, yet 76% of students reported no instruction in its use.

Faculty trepidation over students' use of GenAI—general discomfort, opposition, academic integrity concerns, and a belief that fundamental skills should come before its use—point to areas that need more guidance and direction that require faculty development and a strong campus support structures.

### *Limitations*

Several limitations should be considered when interpreting the findings of this study. First, the data were drawn from a single institution—a large, research-intensive (R1) university—which, despite its size and demographic diversity, may not fully represent the broader landscape of higher education. Furthermore, faculty participation varied across colleges, resulting in samples that were not proportionally representative of all academic units. Consequently, while the findings offer meaningful insights into faculty perceptions and behaviors at this type of institution, their generalizability to other institutional contexts, such as community colleges, liberal arts institutions, or smaller teaching-focused universities, should not be assumed without further empirical validation.

Second, the study relied on self-reported survey data to capture faculty and student perceptions and behaviors related to GenAI use, rather than direct observation or objective behavioral measures. As with all self-report methodologies, responses may be subject to social desirability bias, recall limitations, or inconsistent interpretation of survey items. This concern is particularly salient in the context of GenAI, where both faculty and student usage may intersect with evolving and sometimes ambiguous institutional policies on academic integrity, potentially leading respondents to underreport or mischaracterize their actual practices. Future research would benefit from triangulating self-reported data with direct behavioral measures, such as learning management system logs or institutional usage analytics, to better capture the full picture of how both populations are engaging with these tools.

Third, the rapid pace of development in the GenAI landscape poses a significant challenge to the longevity and relevance of the present findings. The availability of new tools shifts in institutional policy, and changes in both faculty and student attitudes and behaviors are all evolving concurrently, meaning that findings current at the time of data collection may become outdated relatively quickly. Given that faculty and student adoption trajectories may diverge, with each population responding differently to emerging tools, incentives, and institutional guidance, longitudinal and repeated cross-sectional research designs will be essential for tracking how these distinct but interrelated patterns of adoption and institutional responses develop over time.

Finally, this study was designed to capture a snapshot of current usage patterns and proximate support needs and was therefore not positioned to assess the longer-term pedagogical or institutional implications of GenAI integration. Critical questions remain regarding the relative effectiveness of different integration approaches, their influence on student learning outcomes, and their broader impact on faculty workload and professional identity. These questions represent important directions for future inquiry.

## Conclusions and Recommendations

This study presents a baseline of student and faculty GenAI use, perceptions, and familiarity with GenAI's use in our institution. However, it also indicates that this technology is in a state of flux at our university, presenting opportunities for targeted support, faculty development, policy, and future research. Faculty indicate a pressing need for targeted, practical guidance regarding GenAI's use in the classroom with several pedagogical challenges including assessment design, integrity, and discipline-specific integration, being critical. Course level policies need to take into account the sophistication of students' ethical reasoning around GenAI use. Students navigate this technology in a patchwork of institutional, college, and course-level expectations. Clear, consistent messaging—beginning at syllabus level in courses—can help reduce confusion and the potential for unintended misconduct. Campus messaging needs to ensure that is the expectation for all faculty. While faculty have autonomy over their course AI policies, to meet state requirements they must have an AI policy stated in their syllabus beginning Summer 2026.

### *Future Research Needs*

The rapid pace of GenAI development points to the need for longitudinal, ongoing research to capture shifting norms and highlight stable trends as the technology progresses throughout the educational and workplace ecosystems. Discipline-specific findings need to be examined as well, with guidance provided for appropriate and encouraged uses for students, based on skills needed for the workplace. In addition, research on faculty and students' definitions and interpretations of what constitutes academic misconduct is needed to ensure alignment. The impact of expanding GenAI access and literacy is also needed. More challenging is research examining the impact of GenAI on students' critical thinking skill over time. GenAI has the potential to disrupt many norms. Perhaps most urgent is scholarship on new, Gen-AI-resistant, discipline-specific and scalable assessments.

Given the speed with which AI is being integrated into numerous commonly used tools (e.g., library search tools, and general search engines), it is quickly becoming impossible to outlaw all use of GenAI in teaching and learning. Both faculty and students need guidance and support on how to approach thoughtful and appropriate use of this highly disruptive technology. Overall, institutions will need to move toward proactive pedagogical innovation rather than merely reactive detection.

### **Declarations**

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#### *Ethics Statement*

This study was conducted in accordance with recognized ethical standards. Informed consent was obtained from all participants, and data was collected and reported with respect for confidentiality and anonymity. The study protocol was reviewed and approved by the

Institutional Review Board of University of Central Florida, Approval No. 00006957 (student survey) and 00006717 (faculty survey).

***AI Use Statement***

Generative artificial intelligence (GenAI) platforms, ChatGPT and Claude, were used to support the summarization and synthesis of peer-reviewed literature obtained through systematic database searches, brainstorm verbiage related to findings, and to improve the clarity of selected passages. The use of this tool did not extend to data collection, analysis or interpretation. All AI-generated content was reviewed, revised as necessary, and approved by the authors, who assume full responsibility for the accuracy and integrity of the work.

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