

Faculty Attitudes Toward the Use of Artificial Intelligence in Higher Education

Esther Smidt, West Chester University, United States
David Bolton, West Chester University, United States

The Southeast Asian Conference on Education 2026
Official Conference Proceedings

Abstract

This mixed-methods study investigated faculty perceptions of AI use in a mid-sized, teaching-focused, public university in the Mid-Atlantic region of the United States. Data instruments consisted of a quantitative survey consisting of opposing attitude statements and qualitative focus group interviews. Findings demonstrated that many faculty were interested in learning how AI applications could improve their teaching and that artificial intelligence (AI) would have an impact on the teaching process by changing their content and methods of instruction and assessment. Faculty members also recognized the need for a change in the role of the professor that prioritized AI literacy, critical and analytical thinking, and educating students on the value of struggle. There were both positive and negative perceptions about the use of AI to grade student work and assess student progress, and of their ability to recognize AI-produced content. Finally, most faculty would not use AI to assist in research writing. There was recognition of the need for skills-based, policy-related, and resource-focused faculty professional development.

Keywords: faculty attitudes, artificial intelligence, higher education

iafor

The International Academic Forum
www.iafor.org

Introduction

With the recent development of ChatGPT, much attention has begun to be paid to artificial intelligence (AI) and its applications. However, the concept and use of artificial intelligence is nothing new. Research into applications of artificial intelligence in education (AIEd) has been occurring for over 30 years. However, it is only now that educators are starting to explore AI applications as learning tools more broadly (Zawacki-Richter et al., 2019). With the increased investment in AIEd by companies such as Google and Apple, artificial intelligence applications have begun to play a significant role in higher education (Contact North, 2018; Popenici & Kerr, 2017).

Literature Review

What is Artificial Intelligence?

A broad definition of artificial intelligence was provided by Baker and Smith (2019), namely that AI refers to “computers which perform cognitive tasks, usually associated with human minds, particularly learning and problem-solving” (p. 10). Artificial intelligence, however, is not one specific technology, but encompasses a variety of technologies, including machine learning, natural language processing, data mining, and neural networks or algorithms (Baker & Smith, 2019). Machine learning is “a subfield of artificial intelligence that includes software able to recognize patterns, make predictions, and apply newly discovered patterns to situations that were not included or covered by their initial design” (Popenici & Kerr, 2017, p. 2). Natural Language Processing (NLP) has to do with using computers to “understand and manipulate natural language text or speech to do useful things (Chowdhury, 2003, p. 1). Data mining attempts to identify patterns in large data sets (Romero et al., 2010) while neural networks are machines that mimic the human brain to recognize patterns among data (Picton & Picton, 1994). All these technologies can impact how students are taught.

Applications of AI in Higher Education

How can these artificial intelligence technologies be applied to the higher education classroom? The three types of classroom-related artificial intelligence applications include intelligent tutor systems (ITS), intelligent support for collaborative learning, and intelligent virtual reality (Luckin et al., 2016).

As the name implies, intelligent tutor systems simulate a private tutor. “[B]ased on learner models, algorithms and neural networks, they can make decisions about the learning path of an individual student and the content to select, provide cognitive scaffolding and help to engage the student in dialogue” (Zawacki-Richter et al., 2019, p. 4). ITSs are excellent for large-scale distance education situations. Artificial intelligence can provide support for collaborative learning by “supporting adaptive group formation based on learner models, by facilitating online group interaction or by summarizing discussions that can be used by a human tutor to guide students towards the aims and objectives of a course” (Zawacki-Richter et al., 2019, p. 4). Artificial intelligence can also use intelligent virtual reality to engage students and to teach students in a game-based environment.

Another way that artificial intelligence can be used in education is in revolutionizing the way teachers assess, allowing teachers to provide just-in-time feedback. Instead of traditional tests, assessment can be integrated into instructional activities as formative assessment of what

students have learned. In addition, artificial intelligence applications are capable of predicting future achievement or whether students will drop out (Zawacki-Richter et al., 2019). Artificial intelligence applications can also automate administration tasks and identify areas of need for students so teachers can provide support and guidance. Artificial intelligence also allows college administrators to monitor educational processes and provide corrections as needed (Zawacki-Richter et al., 2019).

Potential Problems With AI

However, despite the enormous potential of artificial intelligence to improve education, AI introduces significant ethical issues within the educational process. “For example, in times of budget cuts, it might be tempting for administrators to replace teaching by profitable automated AI solutions” (Zawacki-Richter et al., 2019, p. 2). As a result, faculty members and administrators may be concerned that artificial intelligence applications may cause them to lose their jobs (Zawacki-Richter et al., 2019).

Another concern has to do with the amount of data that has to be collected from students and faculty for some AI applications. This raises ethical issues regarding the confidentiality of the information collected. For example, administrators may be making employment and tenure and promotion decisions about faculty based on information collected by artificial intelligence applications. This poses a major concern about the appropriateness of such uses (Zawacki-Richter et al., 2019).

One of the most significant ethical concerns among faculty members about the use of artificial intelligence is its ability to create documents for submission as assessment requirements. Applications such as ChatGPT can produce written documents, such as essays, when provided with parameters for the assignment. While there are ways of identifying such documents, as such applications become more sophisticated, they become more difficult to identify (Malinka et al., 2023).

Methodology

In view of both the affordances of and challenges with AI as expressed and experienced by faculty members, this study investigates faculty attitudes towards the use of AIED at a university in the United States.

Having obtained IRB approval and informed consent, faculty attitudes were investigated using both a written, fixed-response survey, as well as focus groups. In the written survey part of the study, participants responded initially to demographic questions. They were then presented with two opposing attitude statements and were asked to indicate the extent to which they leaned toward one side or the other of the issue.

Participants were faculty members at a mid-sized, teaching-focused public university in the Mid-Atlantic region of the United States. An invitation to complete the survey administered through Qualtrics was sent in Spring 2024 to all professors teaching at the university. These included adjunct, assistant, associate, and full professors at both the undergraduate and graduate levels. Two weeks after the initial survey invitation was distributed, a follow-up email reminder was sent to all faculty. The responses were entered into a spreadsheet, uploaded to SPSS, and analyzed. Demographic statistics about the sample were calculated, as well as faculty members' responses to attitude statements about artificial intelligence.

At the end of the survey, respondents were asked if they would be willing to participate in a focus group interview to follow up on questions asked in the written survey and to further discuss their attitudes toward using artificial intelligence to teach. Those who indicated they were willing to participate were subsequently contacted via email with possible focus group interview dates. Those who responded were assigned to a focus group based on their desired time slots. Of those contacted, 44 accepted the invitation to participate, with 13 faculty members actually participating in three focus group interviews (the first two conducted in September 2024 and the third in February 2025), as follows:

Table 1

Pseudonym and Department of Focus Group Interviewees

Interviews	Pseudonym	Department
Interview 1	Max	Biology
	Riley	Communication Sciences and Disorders
	Nora	Biomedical Engineering
	Fernando	Languages and Cultures
Interview 2	Kate	Math
	Ava	English
	Melanie	English
	Tessa	Graduate Social Work
	Cole	Languages and Cultures
Interview 3	Vera	English
	Eliana	History
	Blake	Secondary Education and K-12, Health and Physical Education
	Mia	Languages and Cultures

At the beginning of each focus group interview session, participants were asked to sign a consent form. The following questions were then asked of the participants.

1. Faculty members: In what subject area(s) do you teach?
2. Have you had experience with students attempting to use apps such as ChatGPT to submit assignments? Explain what happened.
3. What do you see as the potential upside of students using artificial intelligence apps, such as ChatGPT?
4. What do you see as the potential downside of students using artificial intelligence apps, such as ChatGPT?
5. What do you see as a way of preventing potential problems associated with using AI apps?
6. In general, how can such apps be better integrated into teaching?
7. What would you tell students about the use of AI Apps?
8. If you had a university administrator here right now, what advice would you give him or her to deal with artificial intelligence?
9. Are there any other comments you would like to make about artificial intelligence apps?

The responses were collected using two recorders, which were then transcribed. Using NVivo 2020, the transcriptions were coded and analyzed to look for themes across all three focus group interviews.

Results

Survey Demographic Information

Tables 2 through 8 show demographic information about the respondents to the written survey.

Table 2

Quantitative Survey Response Rates

	Faculty	Percent
Total number invited	963	
Total number responded	168	17.4%
Usable data obtained	143	14.8%

Overall, 17.4% of faculty members responded. However, once responses with less than 50% were culled from the sample, the final response rate was 14.8%.

Table 3

Years Taught at the University

Years	Frequency	Percent	Cumulative Percent	Percent of Years Taught at the University	Cumulative Percentage - University
0–5	38	26.6	26.6	39	39
6–10	48	33.6	60.1	23	62
11–15	22	15.4	75.5	13	75
16–20	14	9.8	85.3	13	88
21–25	9	6.3	91.6	6	94
26–30	6	4.2	95.8	2	96
31–35	5	3.5	99.3	3	99
36+	1	0.7	100.0	1	100
Total	143	100.0		100	

Of those who responded, 85.3% had taught for 20 years or less and 60.1% had taught ten years or fewer. Compared with the number of faculty members at the university in general, the percentages within the sample were similar. The only differences were with faculty who had been teaching at the university the shortest amount of time. The lower responses among those who had been at the university 0–5 years was probably due to fewer adjunct faculty responding to the survey. Those who had been at the university for 6–10 years was more highly represented in the sample. At the university, this group consisted of many of those who were recently tenured.

Table 4
Rank of Respondents

Rank	Frequency	Percent	Cumulative Percent	Percent - University
Adjunct	32	22.4	22.4	34
Assistant	28	19.6	42.0	15
Associate	48	33.6	75.5	24
Full	35	24.5	100.0	27
Total	143	100.0		

Most of the respondents, 58.1%, were associate professors or full professors. Less than a quarter, 22.4%, were adjunct professors. Compared with the percentages at the university, the adjunct professors were underrepresented in the sample. Associate professors, on the other hand, were more highly represented in the sample than in the population. This is reflected in Table 3 in the higher number of faculty who had taught at the university between 6 and 10 years.

Table 5
Age of Respondents in Years

Age in Years	Frequency	Percent	Cumulative Percent
20–29	4	2.8	2.8
30–39	25	17.5	20.3
40–49	44	30.8	51.0
50–59	38	26.6	77.6
60–69	25	17.5	95.1
70–79	6	4.2	99.3
Missing	1	0.7	100.0
Total	143	100.0	

The majority, 30.8%, of the respondents were in the 40–49 years age group while the next highest percentage was for the 50–59 age group. The percentages increase and decrease with age, with very few at the lowest and highest age groups.

Table 6
Gender of Respondents

Gender	Frequency	Percent	Cumulative Percent	Percentages in Population
Male	49	34.3	34.3	43%
Female	90	62.9	97.2	56%
Non-binary	1	0.7	97.9	0%
Prefer Not to Say	1	0.7	98.6	1%
Missing	2	1.4	100.0	0%
Total	143	100.0		100%

The majority of the respondents, 62.9%, were female. Compared with the population of the university, females were more highly represented.

Table 7
Race/Ethnicity of the Respondents

Race/Ethnicity	Frequency	Percent	Percent - University	Difference - Percent
White, non-Hispanic	117	81.8	80.7%	+1.1%
White, Hispanic	7	4.9	3.7%	+1.2%
Black or African American	4	2.8	6.1%	-3.3%
Asian	7	4.9	8.8%	-3.9%
American Indian or Alaskan Native	0	0.0	0.2%	-0.2%
Two or more races	5	3.5	0.3%	+3.2%
Missing	3	2.1	0.1%	+2.0%
Total	143	100.0		

The vast majority of the respondents, 81.8%, were white, non-Hispanic. This is to be expected since the large majority of the faculty members at the university were white, non-Hispanic. However, there were fewer responses from some minority professors, most notably Black or African American and Asian professors. However, there were a higher percentage of professors of two or more races. So, it is not clear what the minority representation of the sample is.

Table 8
College of the Respondents

College	Frequency	Percent	Percent - University	Difference
Sciences and Mathematics	18	12.6	20%	-7.4%
Arts and Humanities	36	25.2	23%	+2.2%
Education and Social Work	20	14.0	16%	-2.0%
Health Sciences	19	13.3	14%	-0.7%
Business and Public Management	11	7.7	15%	-7.3%
Honors	1	0.7	1%	-0.3%
Other	3	2.1	5%	-2.9%
Music	0	0	6%	-6.0%
Missing	35	24.5		
Total	143	100.0		

Almost a quarter of the respondents, 24.5%, did not respond to this question. This is not surprising since the survey made this question optional. The highest percentage of respondents, by far, 25.2%, were from the College of Arts and Humanities. Again, this is not surprising since this college has the highest percentage of faculty members in the university. Differences in percentages between population and sample indicate that two colleges, Sciences and Mathematics as well as the College of Business and Public Management, were not as highly represented in the sample. This suggests that faculty members in those disciplines might not have as much interest in or concerns about artificial intelligence and its impact on teaching.

Table 9
Comfort Level With Digital Technology in General

	Frequency	Percent	Cumulative Percent
Very comfortable	92	64.3	64.3
Comfortable	42	29.4	93.7
Neutral	6	4.2	97.9
Very uncomfortable	3	2.1	100.0
Total	143	100.0	

A large majority (93.7%) of the respondents were comfortable (29.4%) or very comfortable (64.3%) with digital technology.

Table 10
Degree of Familiarity With Generative AI

	Frequency	Percent	Cumulative Percent
Very familiar	32	22.4	22.4
Somewhat familiar	63	44.1	66.4
A little familiar	33	23.1	89.5
Not familiar at all	15	10.5	100.0
Total	143	100.0	

Less than a quarter of the respondents, 22.4%, were very familiar with generative AI. The largest percentage, 44.1%, were somewhat familiar with it. This contrasts with Abdelaal and Al Sawi (2024)'s finding where the majority of participants, 30.8%, were neutral with regards to familiarity with AI.

Table 11
Extent To Which Respondents Use AI to Teach

	Frequency	Percent	Cumulative Percent
Not at all	71	49.7	49.7
A little	50	35.0	84.6
A moderate amount	20	14.0	98.6
A great deal	2	1.4	100.0
Total	143	100.0	

Approximately half of the respondents, 49.7%, did not use AI to teach at all. A large majority, 84.6%, use AI a little or not at all to teach.

Table 12
Faculty Comfort With Technology

Majority of participants	Response
Comfort with digital technology	Very comfortable (64.3%)
Familiarity with Generative AI	Somewhat familiar (44.1%)
Extent of using AI to teach	Not at all (49.7%)

Table 12 above summarizes Tables 9–11, which demonstrates that while the majority of participants were very comfortable with digital technology and somewhat familiar with Generative AI, they still were not using AI to teach.

Faculty Attitude and Usage Statements

Faculty ratings for the pairs of attitude and usage statements about artificial intelligence have been divided into the following four tables based on faculty perceptions: (1) positive, (2) both positive and negative, (3) neutral, and (4) negative. It should be noted that within tables, the columns are ranked from most positive to most negative, and that the following have been combined in the column rankings:

- negative and slightly negative, and
- slightly positive and positive.

Table 13

Faculty Ratings for the Pairs of Attitude and Usage Statements About Artificial Intelligence – Positive

Category	Interest in Using AI Applications to Improve Teaching	AI's Impact on the Content or Methods of Instruction	Interest in using AI apps to teach	Impact of AI on the professor's role	Using AI to Advise	Assessing Students Using AI
Negative Statement	I have no interest in learning how AI applications can improve my teaching.	AI applications will have no impact on the content or methods of instruction.	Interest in using AI apps to teach	AI is going to take over jobs as professors so that some will no longer be needed.	Using AI to help advise students should be avoided since it makes it too impersonal.	AI will not significantly change the way I assess my students.
Negative	11.9	1.4	20.3	2.8	12.6	11.9
Slightly Negative	6.3	13.3	10.5	7.7	15.4	20.3
Neutral	11.2	25.2	16.8	37.1	28.0	24.5
Slightly Positive	23.1	35.0	18.9	30.8	30.8	27.3
Positive	46.9	24.5	33.6	19.6	13.3	15.4
Positive Statement	I am very interested in learning how AI applications can improve my teaching.	Because of AI's impact on my profession, I will need to change the content or methods of instruction.	I would be interested in using AI applications to design the lessons I teach.	AI is a tool that will help professors to do their job better.	AI applications have the potential to make advising students easier and more effective.	AI will significantly impact the way I assess my students.

Positive perceptions, namely being very interested or interested, appeared to center around faculty interest in learning how AI applications could improve their teaching (70.0%), realizing that this would include a need to change their content or methods of instruction (59.5%) and an interest in using AI applications to design lessons (52.5%). Faculty believed that AI would

help them to do their job better (50.4%) including making advising students easier and more effective (44.1%). Faculty also believed that AI would significantly impact the way they assessed their students (42.7%). These results confirm Abdelaal and Al Sawi's (2024) findings that "AI enhances teaching" (p. 15).

Table 14

Faculty Ratings for the Pairs of Attitude and Usage Statements About Artificial Intelligence – Positive and Negative

Category	Using AI to Grade Students' Work	Using AI to Assess Student Progress
Negative Statement	I would not consider using AI applications to grade assignments.	I would not use AI applications to assess student progress.
Negative	23.1	21.7
Slightly Negative	16.8	15.4
Neutral	21.7	25.2
Slightly Positive	21.0	24.5
Positive	17.5	13.3
Positive Statement	I would be very interested in using AI applications to grade students' work.	I would feel comfortable using AI applications to assess student progress.

While faculty believed that AI would significantly impact the way they assessed their students, they appeared to be evenly split about how they would do so. 38.5% would and 39.9% would not use AI applications to grade student work and 37.8% would and 37.1% would not feel comfortable using AI applications to assess student progress.

Table 15

Faculty Ratings for the Pairs of Attitude and Usage Statements About Artificial Intelligence – Neutral

Category	AI's impact on the use of writing assignments	Impact of AI on Enrollment in My Program
Negative Statement	I am less likely to assess students using writing assignments because of AI.	Artificial intelligence will not have a significant impact on the number of students who enroll in my program.
Negative	8.4	25.9
Slightly Negative	18.9	13.3
Neutral	60.1	42.0
Slightly Positive	7.0	11.9
Positive	4.9	6.3
Positive Statement	I am more likely to ask students to write as part of their assessment because of AI applications.	Artificial intelligence will have a significant impact on the number of students who enroll in my program

Faculty appeared to be neutral about their likelihood of asking students to write as part of their assessments because of AI application (60.1%), nor did they think that AI would be relevant to student enrollment in their programs (42.0%).

Table 16

Faculty Ratings for the Pairs of Attitude and Usage Statements About Artificial Intelligence – Negative

Category	Recognizing AI-produced content	Using AI to write articles	Impact of AI on homework and writing assignments
Negative Statement	I (will) have difficulty recognizing AI-produced content.	I would never use AI applications to assist me in writing articles based on my data and research	Because students can use AI applications to create homework assignments, AI applications are going to make our jobs harder.
Negative	16.1	32.2	24.5
Slightly Negative	26.6	16.1	25.9
Neutral	21.0	15.4	34.3
Slightly Positive	29.4	20.3	9.8
Positive	6.3	15.4	3.5
Positive Statement	It is/will be easy to recognize AI-produced content.	I would use AI applications to assist me in writing articles based on my data and research.	Because AI applications can be used to help students to write, AI applications are going to make our jobs easier.

Faculty believed that they would have difficulty recognizing AI-produced content (42.7%) and that students being able to use AI applications to create homework assignments would make their jobs harder (50.4%). Finally, faculty would never use AI applications to assist them in research writing (48.3%).

Discussion

Research Question 1: What are faculty members' perceptions of artificial intelligence to fulfill the assessment requirement of their classes?

Students Cheating

In view of the fact that cheating is not new (Max, Nora, Ava), faculty were unsurprised to have suspicions of students cheating using AI although they had no proof of such wrongdoing (Nora, Fernando, Max). These suspicions arose because of a mismatch between previous and current work (Nora, Fernando) and the fact that the submitted work did not answer the assessment questions or was irrelevant (Kate, Eliana). Melanie also described the double-cheating that occurred in the Writing Center, where students submitted AI-written or partially AI-written papers as their own, raising the question, "are we the police of using AI?" This experience of having suspicions of students cheating appear to counter the survey statement of 42.7% of faculty that "[they would] have difficulty recognizing AI-produced content." A possible reason for the disparity may be the self-selected nature of the focus group interviewees.

Further, Kate and Ava opined that students were terrified of writing, both because of the high stakes involved and the time required (Ava), particularly since many students worked multiple jobs (Melanie). Vera reiterated:

maybe one of the problems, though, is that we don't communicate to students that there's space for them to be clumsy. ... So I'm afraid that we're creating fear in them ... I don't know how to do this right, and it's safer for me then if I let AI do it, because it'll do a cleaner job of it, than I will.

To combat such academic dishonesty, Max and Fernando explained that creative assessments are needed, for example AI as a conversation partner (Fernando). Other suggestions included scaffolding the assessment process (Nora), grading using a rubric (Kate), and eliminating discussion boards that appeared to be prone to dishonest use of AI: “my assignments now being structured in a way in which I'm being strategic that they can't use AI” (Tessa). Meanwhile, Eliana and Mia were insistent on not policing AI use while Max and Fernando mentioned not using anti-cheating software. The suggestions of creative assessments are in line with the opinion of 59.5% of faculty who believed that “[b]ecause of AI’s impact on [their] profession, [they would] need to change the content or methods of instruction.”

Rationale for AI Integration and Role of Professor

In spite of such academic dishonesty, there is still a place for AI integration, and the role of the professor in such integration. Max and Mia stressed that students need to learn how to live in the AI world, hence the importance of AI literacy (Fernando), for example, as found in employers using AI to review resumes and conduct background checks. The role of the professor (Gârdan et al., 2025; Kurtz et al., 2024) is suggested in the following excerpts:

- “AI works best with a smart human. And you want to be that smart human.”
- “AI will never do better than an expert at something. At least now, maybe for a while.” (Max)

This professor role comes on where the AI role leaves off. AI is good at efficiency, as an avenue where busywork is offloaded, for example in the writing of reports (Riley). It is also “a way for the people who are already left behind to catch up a little bit” (Max). Furthermore, AI is good for proofreading, for example, through Grammarly (Ava) and in summarizing text, thereby helping with the comprehension of struggling students (Mia, Vera). As Vera suggested “if we were offloading some of the lower order kind of thinking on the AI, that would then free up the students to do ... the more analytic work that you want them to do.”

Nora stressed that it’s in this “more analytic work” that the professor’s role comes in:

if ChatGPT ... can accurately sort of feed students information, then that sort of emphasizes that that shouldn't really be our role as faculty. ... what can we take on as a role of helping them sort of synthesize and see the, the bigger picture? (Nora)

The fact that faculty were asking “what can we take on as a role” aligns with the survey statements of:

- 70.0% of faculty who were “very interested in learning how AI applications [could] improve [their] teaching.”
- 59.5% of faculty who stated that “[b]ecause of AI’s impact on [their] profession, [they would] need to change the content or methods of instruction.”

- 52.5% of faculty who “would be interested in using AI applications to design the lessons [they taught].”
- 50.4% of faculty who believed that “AI [was] a tool that [would] help professors to do their job better.”

Research Question 2: What are faculty members most concerned about with regards to AI? What do faculty members perceive as barriers to faculty learning about AI?

Besides privacy issues (Ismail, 2025; Zeide & Nissenbaum, 2018) such as FERPA (Riley) or HIPAA (Riley, Tessa), faculty also raised intellectual property concerns such as data submitted being used to train AI (Nora, Ava). As such, Nora mentioned that students needed to be aware that some companies require the use of in-house secure AI. Other issues included the ethics of energy expenditure of AI use (Blake), and the hallucination (Schardt, 2023) of AI (Cole, Vera).

One of the most prominent issues raised by faculty was students’ aversion to struggle, as indicated below:

I think my biggest problem with AI is its major design principle is to remove friction. ... And learning requires the right amount of friction. And I think like our goal is to provide them the push just outside of their limits. And they can never get there if they're never if they're, if there's always a tool that they can use to avoid that in the first place, which they will if it's available. (Max)

It can be said that the value of struggle (Nora), namely the learning that results from friction, is critical thinking:

We're writing to think, um, and emphasizing that to your students. Like the reason that I'm having you do this writing assignment is so that you can put your thoughts on paper and find a new way to organize them. It's not to get an A. Um, and I think increasingly that is something that we have to teach students. We, you know, we have to explain in detail why we're doing the things that we're doing and that it's okay for them to be uncomfortable or to struggle. (Riley)

Riley’s reference to written assignments seems to align with the 60.1% neutral faculty stance that suggests that faculty are still using written assignments even though students may misuse AI in such assignments. This is particularly true since students appear to be struggling with reading and writing post-pandemic (Melanie, Ava, Tessa, Kate). Furthermore, there are AI tools being developed that attempts to cultivate critical thinking, for example in Deepseek’s self-talk (Blake), which “thinks,” “contemplates,” or “processes” (Mia), because “self-talk ... [is] a critical aspect of how we develop metacognitive skills and being able to think through problems and understand processes” (Blake).

Vera added “We're sort of overwhelmed with information, but starving for knowledge. And ... the future is going to belong to people, to the people who can synthesize information.”

Ava concluded:

I'm reassured that there are still students who really want to engage, who want to think about what they're doing. And I'm trying not to worry as much about the ones who don't, even as I want to show them. Okay, use this tool, but use it in ways that are critical.

Research Question 3: How are faculty members currently using artificial intelligence in their classrooms?

Instances of AI Integration by Students

Some faculty had not incorporated AI integration into their courses because:

- They did not know enough about AI to integrate it (Riley);
- They did not know how to teach students to effectively and ethically use AI (Nora);
- AI was evolving faster than faculty could keep up with (Fernando), so that faculty were playing catch up (Tessa, Cole).

In other words, the AI continuum ranged from anti to wary to pro-AI (Nora). Some faculty had incorporated AI into their teaching in the forms of:

- The use of Grammarly to fix narrative review or writing, with prompts and AI responses appended (Riley);
- The use of literature review tools such as Research Rabbit, and the use of AI to brainstorm ideas and topics (Nora);
- Discuss the similarities and differences between student-generated and AI-generated ideas (Riley);
- Discuss students' feelings about using AI to create resumes, provide feedback, or align resumes with job advertisements, and employers' use of AI to review resumes (Ava);
- Dual-track research, with- and without-AI, with source review for AI-aided research (Vera);
- Planning and brainstorming with citation (Eliana).

While some students were reticent or averse to AI integration (Vera, Eliana, Mia), others thought differently:

They came to appreciate AI, as you know, like an assistant, as opposed to, you know, a primary author through this process of generating a text where they could have 15% of it be sourced through, you know, AI's writing, and some of them likened it to, you know, like talking with a friend. (Vera)

These examples of AI Integration by students confirms the survey statement by 42.7% of faculty that “AI [would] significantly impact the way [they] assess[ed their] students.”

Instances of AI Integration by Faculty

Besides the planning of AI integration as implemented by students, faculty also

- modeled AI integration by annotating lecture transcripts, summarizing, identifying confusing points, and then having students replicate this process in an assignment (Max);
- used AI with letters of recommendation (Nora);
- used AI to produce grammar documents for class (Mia).

The use of AI with research articles, however, received mixed feedback from faculty. Like the survey statement by 48.3% of faculty who shared that “[they] would never use AI applications to assist [them] in writing articles based on [their] data and research”, some reported not using AI with research articles because:

- they already knew how to do what AI was being used for, and that it was harder to learn how to do it using AI (Eliana);
- the ethics of using submitted data for AI training (Vera, Ava).

Others asked AI to:

- provide feedback on professional writing as a hypothetical colleague (Max);
- Cole advised that it was better to ask AI for a list of suggestions without having it touch the text;
- provide the main points of an author in a text: “the thing guides me, and then I go and do the work myself” (Cole).

However, Ava acknowledged that there was variable effectiveness to AI rewriting depending on prompts used. The mixed feedback by the focus group interviewees may again be the result of the self-selected nature of these participants.

Research Question 4: In what ways can the university support faculty members in using AI to teach?

The integration of AI or not by faculty and students suggests the need for faculty professional development (Sperling et al., 2024). There have been events already implemented such as:

- AI Teaching Circle (Riley);
- A module on Generative AI (Nora);
- Critical Thinking and Writing Workshop (Riley).

However, faculty also requested professional development topics such as:

- How to use AI as a tutor? As a conversation partner? (Nora);
- Tools to help with grading (Nora);
- Fernando requested conversations about where the department stood in regard to AI, as also suggested in Farazouli, Cerratto-Pargman, Laksov, & McGrath (2024). However, Riley shared that it was not possible to create a blanket AI statement because of the diversity of teaching needs at the institution.
- A tech course as part of the General Education requirements (Riley);
- Time and effort to help faculty and students understand how to use AI effectively (Nora, Fernando);
- Practical courses, e.g. prompt engineering (Riley).

Besides topics, faculty also expressed the following needs:

- Meetings with instructional designers, and instructional designers being available to faculty (Tessa);
- Not to use AI to surveil students, e.g. through Navigate (Tessa);
- More funding/resources for instructional designers (Kate);
- Incentives (Tessa);
- Reducing writing class sizes, which are currently capped at 25 students when 18 is recommended (Ava);
- To know what others are doing (Vera);
- Freedom to do what we need to do (Mia);
- Should AI integration be one-offs or integrated throughout the semester? (Eliana);
- To know what AI apps students are using (Mia) so that equitable access can be provided (Eliana) and so that faculty can gain expertise in one app (Vera).

Conclusion

This study discovered that faculty were interested in learning how AI applications could improve their teaching and lesson design, through changing their content and methods of instruction and assessment, and through more effective student advising. The change in methods of instruction and assessment could include the use of creative assessments, for example, using AI as a conversation partner. This change and the integration of AI in classrooms further suggest a change in the role of the professor, “transitioning from knowledge transmitters to facilitators of learning” (Buele, 2025), particularly in view of the fact that students will graduate into a world where AI is being used, hence the need to prioritize AI literacy, critical and analytical thinking, and educating students on the value of struggle, especially with reading and writing.

There were both positive and negative perceptions about the use of AI to grade student work and assess student progress, as suggested by privacy issues and intellectual property concerns. There were also mixed results about faculty’s perception of their ability to recognize AI-produced content. Finally, most faculty would not use AI to assist in research writing.

There was recognition that the use of AI in higher education was inevitable, which suggests the need for faculty professional development, both skills-based, policy-related (Ullah et al., 2024), and centered on the deployment of resources.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

The author declares that no AI or AI-assisted technologies have been used to generate, refine, or correct the content in the manuscript. The ideas, design, procedures, findings, analyses, and discussion are originally written and derived from careful and systematic conduct of the research.

References

- Abdelaal, N. M., & Al Sawi, I. (2024). Perceptions, Challenges, and Prospects: University Professors' Use of Artificial Intelligence in Education. *Australian Journal of Applied Linguistics*, 7(1), n1.
- Baker, T., & Smith, L. (2019). *Educ-AI-tion rebooted? Exploring the future of artificial intelligence in schools and colleges*. nesta.
https://media.nesta.org.uk/documents/Future_of_AI_and_education_v5_WEB.pdf
- Chowdhury, G. (2003). Natural language processing. *Annual Review of Information Science and Technology*, 37, 51–89.
- Contact North. (2018). *Ten facts about artificial intelligence in teaching and learning*.
https://teachonline.ca/sites/default/files/tools-trends/downloads/ten_facts_about_artificial_intelligence.pdf
- Farazouli, A., Cerratto-Pargman, T., Bolander-Laksov, K., & McGrath, C. (2024). Hello GPT! Goodbye home examination? An exploratory study of AI chatbots impact on university teachers' assessment practices. *Assessment & Evaluation in Higher Education*, 49(3), 363–375. <https://doi.org/10.1080/02602938.2023.2241676>
- Gârdan, I. P., Manu, M. B., Gârdan, D. A., Negoită, L. D. L., Paștiu, C. A., Ghiță, E., & Zaharia, A. (2025, February). Adopting AI in education: optimizing human resource management considering teacher perceptions. *Frontiers in Education*, 10, 1488147. <https://doi.org/10.3389/educ.2025.1488147>
- Ismail, I. A. (2025). Protecting privacy in ai-enhanced education: A comprehensive examination of data privacy concerns and solutions in ai-based learning. *Impacts of Generative AI on the Future of Research and Education*, 117–142. <https://doi.org/10.4018/979-8-3693-0884-4.ch006>
- Kurtz, G., Amzalag, M., Shaked, N., Zaguri, Y., Kohen-Vacs, D., Gal, E., Zailer, G., & Barak-Medina, E. (2024). Strategies for integrating generative AI into higher education: Navigating challenges and leveraging opportunities. *Education Sciences*, 14(5), 503.
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed - an argument for AI in education*. <http://discovery.ucl.ac.uk/1475756/>
- Malinka, K., Peresíni, M., Firc, A., Hujnak, O., & Janus, F. (2023, June). On the educational impact of ChatGPT: Is Artificial Intelligence ready to obtain a university degree? *Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 1*, 47–53. <https://doi.org/10.1145/3587102.3588827>
- Picton, P., & Picton, P. (1994). *What is a neural network?* Macmillan Education UK.
- Popenici, S., & Kerr, S. (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. *Research and Practice in Technology Enhanced Learning*, 12, Article 22. <https://doi.org/10.1186/s41039-017-0062-8>

- Schardt, D. (2023). *ChatGPT is amazing. But beware its hallucinations*. Center for Science in the Public Interest. <https://www.cspinet.org/blog/chatgpt-amazing-beware-its-hallucinations>.
- Sperling, K., Stenberg, C. J., McGrath, C., Åkerfeldt, A., Heintz, F., & Stenliden, L. (2024). In search of artificial intelligence (AI) literacy in teacher education: A scoping review. *Computers and Education Open*, 6, 100169. <https://doi.org/10.1016/j.caeo.2024.100169>
- Ullah, M., Bin Naeem, S., & Kamel Boulos, M. N. (2024). Assessing the guidelines on the use of generative artificial intelligence tools in universities: A survey of the world's top 50 universities. *Big Data and Cognitive Computing*, 8(12), 194.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education—where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 1–27.
- Zeide, E., & Nissenbaum, H. (2018). Learner privacy in MOOCs and virtual education. *Theory and Research in Education*, 16(3), 280–307. <https://doi.org/10.1177/1477878518815340>

Contact email: csmidt@wcupa.edu