

A COMPREHENSIVE ANALYSIS OF “HOW” FACULTY ARE UTILIZING GENAI



UNIVERSITY of
SOUTH FLORIDA
Innovative Education

ABOUT THE WORKSHOP

Course Enhancement with GenAI is a fully online, self-paced workshop offered by the University of South Florida, where faculty participants explore a series of GenAI use case tutorials, interact with peers, and gain hands-on experience with prompting on a variety of GenAI platforms in the context of teaching and learning. Participants ultimately construct their own GenAI course enhancement plan to implement immediately in their courses, and then discuss with their peers.

WORKSHOP PARTICIPANT STATS as of December 1, 2024

Total enrollments

260

Total plans submitted

198

Total certifications issued

34

Note that the workshop is dynamic, with new enrollments on a weekly basis. This report represents the first seven months since launch.

ANALYSIS APPROACH

- 1** We reviewed all 198 plans submitted by participants across the following five assignments:
 - **Module 1:** Using GenAI for Course Preparation
 - **Module 2:** Using GenAI for Assessment Tasks
 - **Module 3:** Using GenAI for Content Development Tasks
 - **Module 4:** Using GenAI to Optimize Feedback
 - **Final Application & Course Enhancement Summary**
- 2** From each plan, we systematically identified and coded over 400 “instances” of faculty members reported GenAI usage. These were then grouped into categories through a collaborative, iterative review process involving multiple reviewers.
- 3** From the analysis of 198 plans and 400 coded items, 24 distinct categories emerged, grouped under two primary themes. Additionally, we tracked and tagged each mention of a faculty-preferred GenAI platform. Presented below are the themes and ranked categories, illustrating how our faculty are leveraging GenAI.

RESULTS SUMMARY

Two major themes emerged.

THEME 1

STUDENT AI-AUGMENTED ASSIGNMENTS

These are the reported instances of student-facing use cases where students leverage GenAI to complete an assignment. In total, there were five reported instances as detailed below.

THEME 2

COURSE ENHANCEMENT

These are the reported instances of how faculty utilized GenAI to enhance their course(s) through drafting, editing, recommending new approaches, and any other tasks that optimized efficiency and/or sparked creativity. As expected, this is the more predominant theme with over 20 unique categories. Each is ranked below based on the frequency with the highest being Assignment Recommendations/Revisions (55 instances | 14%), Rubric Development (46 instances | 12%), Lecture Script / Presentation Development (43 instances | 11%), Direct Communication Drafting/Revision (30 instances | 8%), and others.

THEME 1

STUDENT AI-BASED ASSIGNMENTS

IMAGE GENERATION

1 INSTANCE

I allowed for AI enhanced images in the last assignment which is a PowerPoint presentation focusing on the human body in Art. I let the students select their own AI system and concept. They could also use the Generative AI for research as long as they documented their work with a Works Cited.

STUDENT REFLECTIVE & COMPARATIVE SUMMARIES

1 INSTANCE

They write their own reflection of how an institution (e.g., family, religion,) influenced their socialization into "the world." Then, they are required to run the prompt through AI and download the product into their assignment. They compare their reflection with what AI generated, and respond to how AI could improve their reflection, BUT ALSO where AI was inappropriate or inaccurate... I think it is a great way to help students learn "proper or better ways" to use AI.

STUDENTS DEVELOPING A RUBRIC

1 INSTANCE

Students using GenAI to as a resource in developing assignment rubrics

RESEARCH SUMMARIZING ARTICLE ABSTRACTS

1 INSTANCE

The objective of this assignment is to utilize artificial intelligence (AI) tools to generate summaries of abstracts from a collection of scholarly articles related to high-altitude illnesses. This exercise aims to enhance students' understanding of the key concepts and findings presented in academic literature while also exploring the capabilities of AI in text summarization

COMPARATIVE OUTLINING

1 INSTANCE

I added an assignment integrating AI for student use: Dueling Outlines...students were tasked with creating an outline for their course project. In this module, they will use that outline and compare it with an outline created from AI.



THEME 2

COURSE ENHANCEMENT

ASSIGNMENT RECOMMENDATIONS/ REVISION

► **14%** | 55 instances

I enhanced my course by using GenAI in two key ways. I utilized it to generate diverse quiz questions and coding exercises, which allowed me to create more tailored assessments for my students. It saved a lot of time.

RUBRIC DEVELOPMENT

► **12%** | 46 instances

I asked for Co-pilot to create an assignment that required students to evaluate the effectiveness of a treaty in particular case. I continued with this assignment by asking Co-pilot to create a rubric for that assignment.

LECTURE SCRIPT / PRESENTATION DEVELOPMENT

► **11%** | 43 instances

I used Copilot to create overview video script for a series of modules within my course focused on developmental disabilities.

DIRECT COMMUNICATION DRAFTING/REVISION

► **8%** | 30 instances

I asked Copilot to "create an email to a student who has excessive absences."

WELCOME MESSAGE DRAFTING/ EDITING

► **8%** | 30 instances

I used Gen AI for two things - to generate a new welcome message for one of my courses and to also incorporate a message about Gen AI. For the welcome message I used CoPilot.

LESSON PLAN DEVELOPMENT

► **7%** | 28 instances

I prompted both ChatGPT and Copilot to "Create a college level teaching lesson plan for what to expect your first year teaching for middle grades math preservice teachers." The content for each had similarities, but the formats had striking differences.

SURVEY DEVELOPMENT

► **6%** | 25 instances

I explained the scenario to ChatGPT and asked it to create a follow up survey for the test and it created a thorough survey inquiring about students' Expectations, Test Content & Alignment, Test Preferences, and general feedback... In short, I accomplished in under 5minutes (with the assistance of GenAI) a task that would typically take an hour.

SYLLABUS EDITING

► **6%** | 24 instances

I also wanted a statement about GenAI to add to the syllabus. For this task, I used both CoPilot and Gemini and used the same prompts for both.



REMAINING 16 INSTANCES

QUIZ DEVELOPMENT

► **6%** | 24 instances

Using Copilot, I created a ten-question multiple choice quiz, specifying that it was for a college level film course...I told the app (AI) to mark the correct questions with an asterisk so that I can use GetMarked to import it into Canvas.

LEARNING ACTIVITY RECOMMENDATIONS/ DEVELOPMENT

► **5%** | 18 instances

I was able to generate a learning plan for active learning in my seminar course where students are engaged in peer-reviewing their colleagues. It provided insights on how to communicate professionally while providing constructive feedback in a positive manner.

STUDENT SUCCESS PLAN DEVELOPMENT

► **4%** | 15 instances

I used both ChatGPT and Copilot to generate a student success plan specific to their upcoming presentation project. I used text from our instructor orientation module that makes connections between the student learning outcomes and the project outcomes...Although this information is faculty facing, I find it helpful to share this information with students and asked GenAI to create a student facing document in the form of a student success.

LEARNING OUTCOMES/OBJ. DEVELOPMENT

► **3%** | 13 instances

IMAGE GENERATION

► **3%** | 12 instances

ANNOUNCEMENTS DRAFTING/EDITING

► **3%** | 10 instances

I will use AI to edit my weekly wrap-up announcements to the students to make them all sound similar. Right now they are all over the place, depending on how I feel every week and how much time I have.

GENAI POLICY DEVELOPMENT

► **3%** | 10 instances

RESEARCH

► **1%** | 4 instances

STUDENT PEER REVIEW ASSIGNMENT DEVELOPMENT

► **<1%** | 3 instances

COURSE SURVEY DRAFTING/ EDITING

► **<1%** | 2 instances

GAMIFICATION

► **<1%** | 2 instances

CLASSROOM ICEBREAKERS

► **<1%** | 2 instances

TUTOR BOT

► **<1%** | 1 instances

STUDENT FAQ DEVELOPMENT

► **<1%** | 1 instances

CASE STUDY DEVELOPMENT







► **<1%** | 1 instances

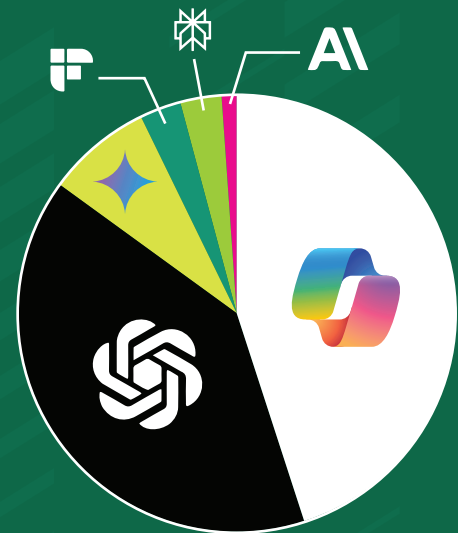
SUMMARIZING ARTICLES

► **<1%** | 1 instances



REPORTED PLATFORM USAGE

-  **Copilot** ▶ 44% | 93 instances
-  **ChatGPT** ▶ 40% | 84 instances
-  **Gemini** ▶ 12% | 26 instances
-  **Firefly** ▶ 1% | 3 instances
-  **Perplexity** ▶ 1% | 3 instances
-  **Claude** ▶ 1% | 1 instance



FACULTY PARTICIPANT INSIGHTS

- “The quality of ChatGPT output is highly dependent on the detail in the input; more specific prompts result in more tailored and comprehensive responses. Additionally, understanding the context, including academic background and teaching goals, enhances the relevance and applicability of ChatGPT’s responses, highlighting the importance of providing comprehensive context in prompts.”
- “I do appreciate the use of AI for this ability to provide me with ideas that I otherwise would not think of or are new to me.”
- “Using AI over the past few semesters has been a game-changer! Creating surveys, emails, and feedback take more time and now I can get things done a lot quicker. The trick is to be clear with what you want. Sometimes the AI gives quirky suggestions, but with a few tweaks, I get what I want. It’s like having a super efficient assistant who never sleeps or complains.”
- “I found this exercise sort of thrilling. After you’ve taught a class so many times, you sort of default to some favored learning materials – texts, videos, lectures, etc – but using ChatGPT and Copilot inspired and even jolted me to think, ‘that’s actually a really clever way to approach that.’”
- “I am now sharing the use of Copilot with my fellow teachers – and they are ‘blown away’ by how fast Generative AI works and are now starting to implement this new technology with their assignments. And I did mention that this class is a great way to experiment with the technology and earn a badge.”
- “To enhance ChatGPT’s responses, I refined prompts for clarity and detail. This included providing additional context and adjusting prompts based on initial outputs to achieve the desired level of accuracy. This approach ensured that the content was relevant and tailored to the specific educational and professional context, making it more useful and applicable.”
- “I have used Gen AI quite a bit and I really like starting out open-ended. Sometimes it thinks of things that I realize are great additions.”
 - “This approach has proven to be a game-changer in how I prepare for my classes. The AI’s ability to generate ideas and structure content has allowed me to craft more targeted and engaging lesson plans, ensuring that my course objectives are clearly met.”
 - “This is a really helpful starting point to brainstorm how to breakdown class time and engage with students. In the future I plan to use AI to flesh out in-class student activities and powerpoint presentations.”



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