

How Faculty Can Harness Generative AI for Enhanced Learning: Part 2

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February 8, 2024 (10-11 am EST)

How Faculty Can Harness Generative AI for Enhanced Learning: Part 2
Dr. Curt Bonk, Indiana University

<https://teachonline.ca/webinar/how-faculty-can-harness-generative-ai-enhanced-learning-part-2>



How Faculty Can Harness Generative AI for Enhanced Learning: Part 2

[Register Here!](#)

Date: Thursday, February 8, 2024

Time: 10:00 a.m. - 11:00 a.m. (Eastern Time/UTC-05:00 America/New_York)

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Poll #1. Warm-up question...

1. Have you discovered and used a different Generative AI tool or platform other than ChatGPT since Part 1 in November? Yes. No.



3

Poll #2. Warm-up question...

2. Have you used a new Generative AI tool or platform for any of your formal or informal learning since Part 1 in November? Yes. No.



4

Poll #3. Warm-up question...

3. Have you used **ChatGPT** or other Generative AI tools in your innovative teaching in the past few months?

- No.
- Yes, one time.
- Yes, a few times.
- Yes, many times.
- Yes, I tried ideas out from Part 1.



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August 10, 2023

Teachers are surprise AI champions
Laura Ascione, eSchool News

<https://www.eschoolnews.com/digital-learning/2023/08/10/teachers-are-surprise-ai-champions/>

- **62 percent** of all respondents have **used AI technologies**.
- **Teachers** use AI for:
 - Research (44 percent).
 - Generating lesson plans (38 percent).
 - Summarizing or synthesizing information (38 percent).
 - Generating classroom materials like tests and assignments (37 percent).
- **Students** agree that:
 - AI technologies help them better understand material (73 percent).
 - AI helps them study faster or more efficiently (67 percent).



Teachers are surprise AI champions
Laura Ascione
August 10, 2023
Survey reveals that teachers outpace students in use of, and sentiment toward, AI in education.

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June 1, 2023
Learning is More Personalized
New survey Finds AI is Replacing Tutors for Students
 Annie Galvin Telch, Fierce Education
<https://www.fierceeducation.com/technology/new-survey-finds-ai-replacing-tutors-students/>

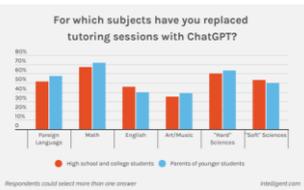


In general, do you believe studying with a tutor or studying with ChatGPT is more effective?

Group	ChatGPT is more effective	Tutors are more effective
High school and college students	~85%	~15%
Parents of younger students	~10%	~90%

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May 15, 2023
New survey Finds Students are Replacing Human Tutors with ChatGPT
Intelligent
<https://www.intelligent.com/new-survey-finds-students-are-replacing-human-tutors-with-chatgpt/>



For which subjects have you replaced tutoring sessions with ChatGPT?

Subject	High school and college students	Parents of younger students
Foreign Language	~45%	~40%
Math	~55%	~45%
English	~35%	~30%
Art/History	~30%	~25%
Sciences	~45%	~40%
Self-Directed	~40%	~35%

When asked why they have chosen to replace tutoring sessions with ChatGPT, respondents offered the following:

- "Kids love it, it's cheap."
- "My children prefer to use the software for oral practice, and the results are much better."
- "Because ChatGPT is better able to know what I need, what my weaknesses are, and what I need to strengthen."
- "Because ChatGPT can not only save on study expenses, but also save on time."

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December 19, 2023
Surprise! Generative AI is already in most classrooms
 Laura Ascione, eCampus News
<https://www.ecampusnews.com/teaching-learning/2023/12/19/surprise-generative-ai-college-classrooms/>



Surprise! Generative AI is already in most classrooms

Laura Ascione
 December 19, 2023
 More than half of instructors say they or their students are using AI, and another third of those who aren't would consider doing so in the future

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November 22, 2023
Students, leaders show to adopt AI, but cautiously optimistic
 Laura Asione, eCampus News
<https://www.ecampusnews.com/teaching-learning/2023/11/22/students-leaders-at-higher-education/>

The data comes from Anthology's 2023 global research survey, Comparing Global University Mindsets and Student Expectations. The survey results reveal the perceptions and realities of generative AI use among university leaders and students in the U.S., and how they differ from colleagues in other parts of the world based on a survey of more than 5,000 current students and university leaders across 11 countries.

AI use among U.S. students growing but lags global peers
 The survey reveals intriguing differences in the adoption of generative AI tools, like ChatGPT, among university students in the U.S. compared to their peers in other countries. **Overall, 38 percent of students in the U.S. reported using generative AI tools frequently or occasionally.**



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November 22, 2023
Students, leaders show to adopt AI, but cautiously optimistic
 Laura Asione, eCampus News
<https://www.ecampusnews.com/teaching-learning/2023/11/22/students-leaders-at-higher-education/>

Students' AI optimism contradicts university leaders' concerns
When asked what role AI will play in higher education, students' top responses were positive with 46 percent indicating AI would enhance student engagement and interactivity and 38 percent believing it would be supportive in helping generate ideas. More than 1 in 3 students said AI would revolutionize teaching and learning.

However, **higher ed leaders** are not as bullish. Only **16 percent** think AI will **revolutionize teaching and learning**, and more than one-third (35 percent) of university leaders worry AI will create new challenges in identifying plagiarism...



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View Online: <https://teachonline.ca/tools-trends-five-steps-leverage-chatgpt-your-teaching>



Five Steps to Leverage ChatGPT in Your Teaching

March 06, 2023



- 01 ChatGPT can create content in minutes.
- 02 ChatGPT is one of a variety of AI-enabled writing tools.
- 03 ChatGPT is currently free to use.
- 04 ChatGPT learns from the interactions with users.
- 05 ChatGPT used under system will have a significant impact on programming and code development.

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AI Tutor Pro Contact North

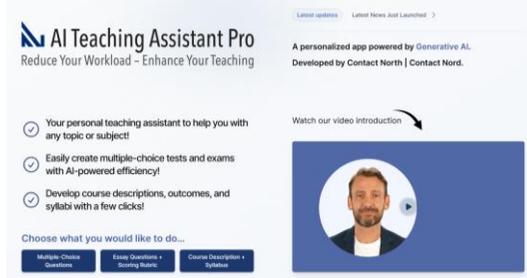
<https://www.aitutorpro.ca/>



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AI Teaching Assistant Pro Contact North

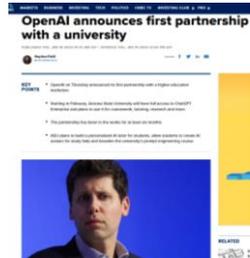
<https://www.aiteachingassistantpro.ca/>



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January 17, 2024 OpenAI announces first partnership with a university Hayden Field, CNBC

<https://www.cnbc.com/2024/01/18/openai-announces-first-partnership-with-a-university.html>



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January 17, 2024 AIs Enrolling as Students in Michigan University's Experiment Lauren Coffey, Inside Higher Ed

Ferris State University (Artificial Intelligences Ann and Fry) will listen in to online courses before making their way to the classroom, ultimately eyeing Ph.D.s.
<https://www.insidehighered.com/news/tech-innovation/artificial-intelligence/2024/01/18/aic-enrolling-students-michigan-university>



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January 11, 2024 The world's first AI powered course taught completely by AI teachers Kevin Hogan, eCampus News

<https://www.ecampusnews.com/innovation-insights/2024/01/11/the-worlds-first-ai-powered-course-taught-completely-by-ai-teachers/>



The world's first AI-powered course taught completely by AI teachers?

Kevin Hogan
January 11, 2024
Otermans Institute has taken a bold step in transforming the educational landscape as its AI-powered teachers are now teaching an entire 9-lesson course

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January 11, 2024 The world's first AI powered course taught completely by AI teachers Kevin Hogan, eCampus News

<https://www.ecampusnews.com/innovation-insights/2024/01/11/the-worlds-first-ai-powered-course-taught-completely-by-ai-teachers/>

- Otermans Institute founders, Dr Pauly Otermans and Dev Aditya said, "we will be expanding our AI-powered teaching capabilities to 40 universities by September 2024. Additionally, we are also conducting trials on how OIAI can be embedded into existing digital learning platforms."
- With over 80% of students completing the OIAI course since November 2023, and a learner satisfaction rate of 94%, OIAI's impact on digital education is promising.
- So far, **OI has supported over 35,000 learners**, working with governments and UN bodies in 13 countries to provide training and education using AI technology and bringing professional development skills to the most deprived areas.

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'Everybody is cheating': Why this teacher has adopted an open ChatGPT policy

npr

By Patrick Wood, Mary Louise Kelly
Published January 26, 2023 at 5:01 AM EST



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November 13, 2023

Why You Should Rethink Your Resistance to ChatGPT

Flower Darby, Chronicle of Higher Education
<https://www.chronicle.com/article/why-you-should-rethink-your-resistance-to-chatgpt>

Why You Should Rethink Your Resistance to ChatGPT

How to teach with AI tools in ways that meet faculty concerns about ethics and equity.

By Flower Darby | November 13, 2023

EDSCOOP

ChatGPT is about as exciting as a Twinkie

While new and perhaps useful, ChatGPT isn't the advance educators should be encouraging in their students' writing.




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December 11, 2023

ChatGPT Has Changed Teaching. Our Readers Tell Us How

Beth McMurtrie and Beckie Supiano, The Chronicle of Higher Ed
<https://www.chronicle.com/article/chatgpt-has-changed-teaching-our-readers-told-us-how>

ChatGPT Has Changed Teaching. Our Readers Tell Us How.

By Beth McMurtrie and Beckie Supiano | DECEMBER 11, 2023



Teaching

Find insights to improve teaching and learning across your campus. To read this newsletter as soon as it sends, sign up to receive it in your inbox.

November 20, 2023

From the Editor's Digest

Subject: Teaching: Practical AI strategies for the classroom



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September 8, 2023

ChatGPT as Tutor or Mentor

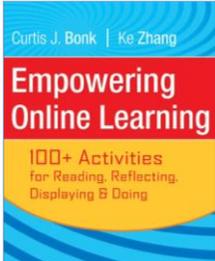
<https://cybernews.com/academy/news/chatgpt-your-new-academic-mentor/>

1. Don't accept the first answer-converse with it.
2. Tell ChatGPT what you want to achieve.
3. Ask ChatGPT: Can you provide some study techniques?
4. Ask ChatGPT: Find information when stuck.
5. Ask ChatGPT: The program can review course material, **create a tailored study schedule, summarize and condense information, provide past exam questions, and even offer helpful tips that might make studying easier.**



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**The R2D2 Model:
Read, Reflect, Display, Do...**




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Introducing the TEC-VARIETY Framework

<http://tec-variety.com/>
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products




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September 2022
Commonwealth of Learning
 Khoo, E., & Bonk, C. J. (2022). *Motivating and Supporting Online Learners*. Burnaby, BC, Canada: Commonwealth of Learning. **Free book available:** <http://hdl.handle.net/11599/4481> and free course available: <https://colcommons.org/welcome/course/details/8>; <https://www.colvee.org/>



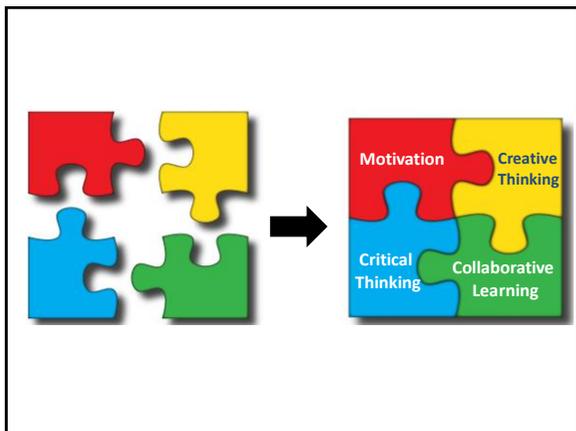
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Poll #4: Which area are you most interested in learning or fostering with your students?

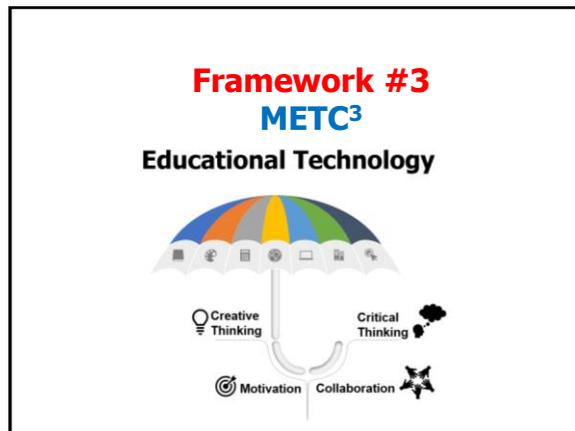
- A. Creative thinking online**
- B. Critical thinking online**
- C. Collaborative learning and teamwork online**
- D. Motivation**



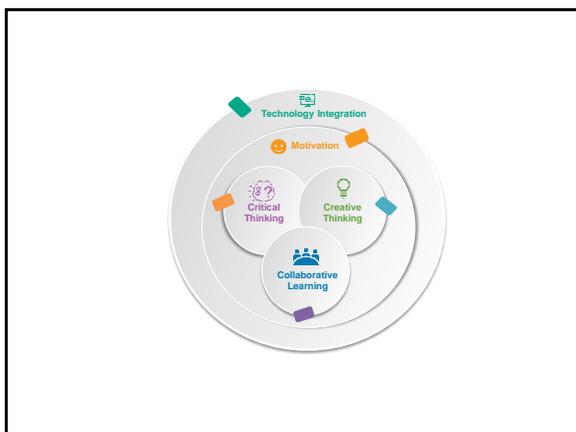
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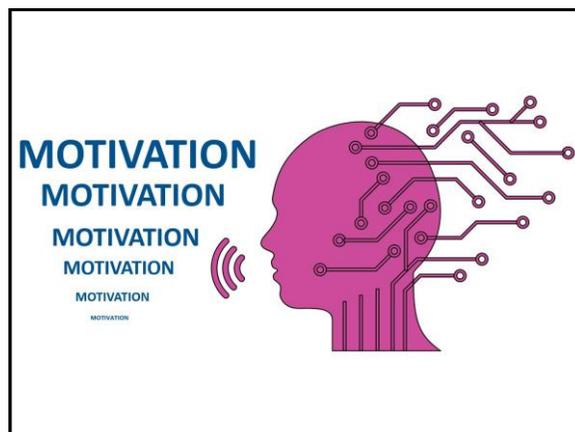
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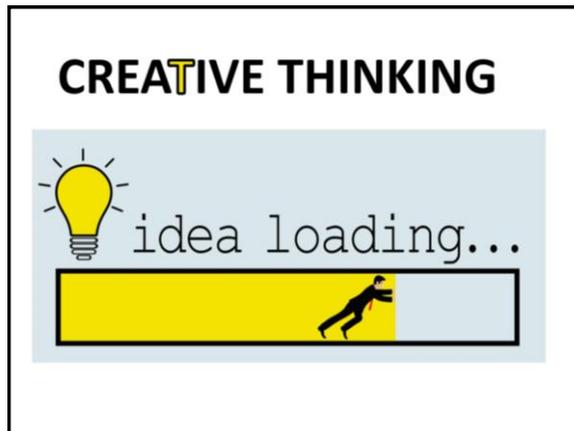
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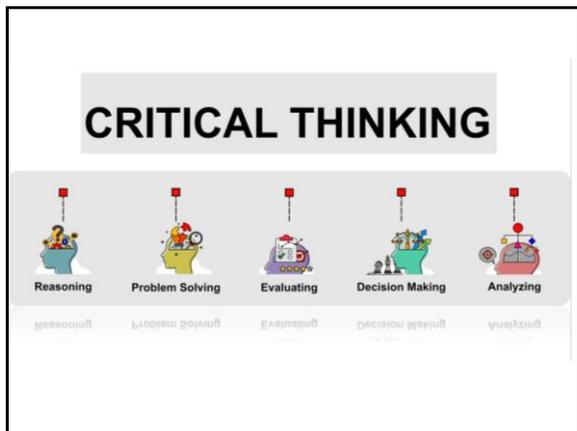
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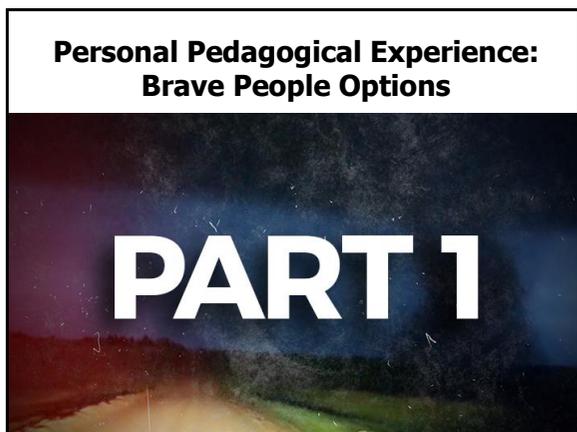
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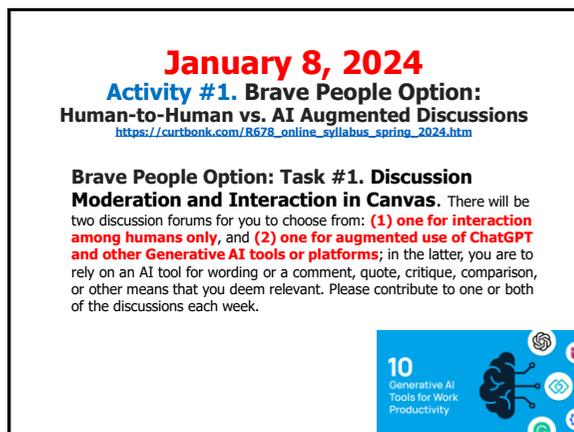
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Discussions		
Week 5, Human to Human Discussion All Sections Last post at Feb 6, 10:25 PM	Available until May 6, 11:59 PM	
Week 4, Human to Human Discussion All Sections Last post at Feb 6, 6:39 PM	Available until May 6, 11:59 PM	
Week 3, AI Augmented Discussion All Sections Last post at Feb 6, 9:46 AM	Available until May 6, 11:59 PM	
Week 5, AI Augmented Discussion All Sections Last post at Feb 5, 11:07 PM	Available until May 6, 11:59 PM	
Week 4, AI Augmented Discussion All Sections Last post at Feb 5, 11:07 PM	Available until May 6, 11:59 PM	

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I asked: In 2024, what questions should instructional designers and instructors ask about using immersive technologies and Augmented Reality in learning environments?

Please feel free to use these questions to generate new queries.

Google Bard's response:

In 2024, with the advancements in immersive technologies and augmented reality (AR), it's important for instructional designers and instructors to ask critical questions before incorporating them into learning environments. Here are some key points to consider:

Technological Considerations:

- What are the data privacy and security implications of using AR/immersive technologies? Be transparent about data collection, storage, and usage, and comply with relevant regulations.
- What are the ethical considerations involved in using AR/immersive technologies in education? Address potential issues like bias, addiction, and manipulation to ensure responsible and ethical use.
- What are the technical requirements and costs associated with implementing AR/immersive technologies? Consider hardware compatibility, software subscriptions, maintenance, and potential upgrades. Align costs with the expected benefits and ensure long-term sustainability.

Pedagogical Effectiveness:

- How will we integrate AR/immersive technologies seamlessly into the existing curriculum? Avoid isolated "VR days" and ensure the technology complements and reinforces existing learning pathways.
- What specific learning objectives will AR/immersive technologies help achieve? AR is great for visualizing concepts, but not everything needs virtual immersion. Identify specific learning goals where these technologies offer a clear advantage over traditional methods.
- How will we assess the impact of AR/immersive technologies on learning outcomes? Measure and analyze data to see if the technology actually improves learning compared to traditional methods. Don't assume effectiveness based on novelty alone.

Accessibility and Equity:

- How will AR/immersive technologies impact students with different learning styles and needs? Cater to diverse learning styles by ensuring

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You bring up an interesting point about "watch only" or the literal interactive features of VR. Since most of my teaching experience stems from working with middle schoolers, their varying levels of maturity quite frankly pushes me to say that I would go with the first option, the "safe" option. However, I am more open to using it as a supplemental resource, so I asked ChatGPT the following question:

How can virtual reality collaborate with other forms of learning in the classroom?

Response:

Incorporate VR as a Supplemental Tool: Use VR as a supplementary tool to traditional teaching methods. For example, after a classroom discussion on a historical event, students can use VR to explore a virtual recreation of the event, enhancing their understanding through immersion.

Flipped Classroom Models: Implement a flipped classroom approach where students engage with VR content at home and use class time for discussions, collaborative activities, and further exploration of topics. This allows for a more personalized and interactive learning experience.

Interactive Assessments: Integrate VR into assessments to evaluate students' understanding in a more dynamic and interactive manner. VR assessments can include problem-solving scenarios, simulations, or virtual presentations, providing a richer picture of students' comprehension.

Project-Based Learning: Combine VR with project-based learning (PBL) approaches. Students can use VR to research, design, and present their projects, fostering creativity, critical thinking, and collaboration.

Cross-Curricular Integration: Facilitate cross-curricular learning experiences by integrating VR across different subjects. For example, a history lesson on ancient civilizations could be enhanced by a VR experience that includes geography, architecture, and cultural elements.

Synchronous and Asynchronous Learning: VR can be used for both synchronous and asynchronous learning. In synchronous learning, students can participate in real-time VR activities together, fostering collaboration. In asynchronous learning, they can

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January 8, 2024

Activity #2. Brave People Option: Reflection Paper Starter Text and Quotes

https://curtbnk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task #2. Tidbit and Video Reflection Paper

You can use **ChatGPT to generate starter text or 2-3 comments or quotes**, but be sure to cite such work properly. For example, citations in text: (ChatGPT, personal communication) or (OpenAI, 2024).

OpenAI (2023). *ChatGPT* (March 14 version) [Large language model]. <https://chat.openai.com/>



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January 8, 2024

Activity #3. Brave People Option: Critique Starter Text and Comments

https://curtbnk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task #3. ETR&D Review and Critique and Interview. Feel free to utilize generative AI tools like **ChatGPT or ChatPDF to generate starter text and up to three quotes in your paper as long as they are marked or you have rewrote them and cited them properly.** If you utilized ChatGPT or some other generative AI platform, please cite it appropriately.

OpenAI (2023). *ChatGPT* (March 14 version) [Large language model]. <https://chat.openai.com/>



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January 8, 2024

Activity #4. Brave People Option: Critique of Critiques

https://curtbnk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task #3 (Even Braver Option). ChatGPT ETR&D Review and Critique and Interview. Or perhaps put the articles or the **entire special issue into ChatPDF, ChatGPT, or other generative AI tool or platform and have it do a critique or a book review.** If you choose this route, you are to write a 2-3 page single-spaced reflection paper, review, or critique of what generative AI produced.



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January 8, 2024

**Activity #5. Brave People Option:
Report Reviews or Critiques**

https://curtbonk.com/R678_online_syllabus_spring_2024.htm

**Brave People Option: Task 4a Option. Report
or Strategic Plan Analysis and Evaluation.**

The entire strategic plan report into ChatPDF, ChatGPT, or other generative AI tool or platform and have it do a critique or a review. If you choose this route, you are to write a 2-3 page single-spaced reflection paper, review, or critique of what generative AI produced.



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January 8, 2024

**Activity #6. Brave People Option:
Naturalist Study of the Use of ChatGPT**

https://curtbonk.com/R678_online_syllabus_spring_2024.htm

**Brave People Option: Task 4b Option.
Naturalistic Study.**

You might perform a case study or pilot observation of workers, students, etc. using tools or instructors interacting with employees, students, other instructors, etc. while they use a Web-based learning tool, resources, project, or curriculum application. **Perhaps you might look at how different people are utilizing ChatGPT for their learning.** For instance, you might decide to complete a case study of a child, young person, or adult using a particular learning tool for the first time. Such naturalistic studies should include at least five careful observations and commentary of the person and tutor/teacher.



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January 8, 2024

**Activity #7. Brave People Option:
Research or Study Report Generator**

https://curtbonk.com/R678_online_syllabus_spring_2024.htm

**Even Braver People Option: Task 4b Option.
Naturalistic Study.**

Note: You can use ChatGPT to generate starter text or 2-3 comments or quotes but be sure to cite such work properly. **Or perhaps have ChatGPT write your study report. If you choose this route, you are to write a 2-3 page single-spaced reflection paper, review, or critique of what generative AI produced.**



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January 8, 2024

**Activity #8. Brave People Option:
Software and Technology Tool Reviewer**

https://curtbonk.com/R678_online_syllabus_spring_2024.htm

**Brave People Option: Task 4c Option.
Software or Technology Tool or Platform
Review.**

If you utilized ChatGPT or some other generative AI platform for any aspect of this assignment, please cite it appropriately. **Perhaps you might put the articles or reviews on a technology tool into ChatPDF, ChatGPT, or other generative AI tool or platform and have it do a critique or a book review.** If you choose this route, you are to write a 2-3 page single-spaced reflection paper, review, or critique of what generative AI produced.



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January 8, 2024

**Activity #9. Brave People Option:
Script Creator and Developer**

https://curtbonk.com/R678_online_syllabus_spring_2024.htm

**Brave People Option: Task 5a Option. Cool
YouTube Video Creation**

You are encouraged to use ChatGPT or some other generative AI tool or platform in the development of your script and other associated work. You will turn in a 2 page single-spaced summary reflection of your design (3-4 pages if with a partner) along with a link to your video or a way to download it. If you utilized an AI tool or platform to support your efforts, please use appropriate citations. Your video and paper will be graded according to the dimensions listed below.



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January 8, 2024

**Activity #10. Brave People Option:
List Generator: Issues and Challenges Paper**

https://curtbonk.com/R678_online_syllabus_spring_2024.htm

**Brave People Option: Task 5b Option.
Analysis of Issues/Challenges in the Field of
Learning Technology.**

You are encouraged to use ChatGPT or some other generative AI tool or platform in the development of your issues and challenges paper. You utilize ChatGPT or similar to generate a list of key issues and challenges. That will go in a table in your paper. Then you are to write a paper using this starter list by conducting research on each of those items. If you utilized an AI tool or platform to support your efforts, please use appropriate citations.



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January 8, 2024

Activity #11. Brave People Option:
Historical Topics and Trends Evaluation Co-Partner
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task 5c Option. Historical Topics and Trends Evaluation Co-Partner.

I want you to track the history of this course over time. For instance, you might explore the topics, people, concepts, etc., that were popular in the 1990s, 2000s, 2010s, and today. You will turn in a 4-5 page single spaced paper on what you discovered (6 to 8 pages with a human partner or Generative AI partner); not counting references and appendices. **Color code or highlight contributions for ChatGPT or other AI partners.**



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January 8, 2024

Activity #12. Brave People Option:
Usable Class Project
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task 5c Option. Usable Class Project.

The more ambitious of you might create an interactive multimedia glossary or comprehensive Website for the course as an individual or with AI support. Still others might create an online database of articles. **Use ChatGPT (or equivalent) to create a skeleton or prototype to the project which you must turn in with your final project.**



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January 8, 2024

Activity #13. Brave People Option:
Client-Based Project
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task 5c Option. Client-Based Project.

You might also engage in a major problem-based learning project related to this class with a school, company, organization, or institution. In this option, you make the contact and find out what needs to be resolved and then get it approved by the instructor. The final product might be a distance learning evaluation project. **It might involve the design of e-learning tools and resources. It might entail the creation of a strategic plan, white paper, or vision statement. Whatever the problem or task, it must be authentic. Document any AI support that you received.**



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January 8, 2024

Activity #14. Brave People Option:
Student Determined Project
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Brave People Option: Task 5h Option. Student Determined Project.

You have total control over your final task in this course. If you do not find any of the options above to be to your liking, you can decide on the project based on your needs, interests, and passions. **And you can use Generative AI support in whatever way you want; you just have to document it.** Please include a 2-3 page single spaced reflection paper with any of these project options.



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August 21, 2023

Activity #15. Brave People Option:
Issue Debate Generation
https://curtbonk.com/R511_online_syllabus_fall_2023.htm

Brave People Option: R511. Issue Debate Generator. Have ChatPDF, ChatGPT, or other generative AI tool or platform write a paper about a topic is debated in the field of learning, design, and technology. Next, write a 3-4 page reflection paper or critique of what generative AI produced (single-spaced preferred). I want you to include both your paper and the paper generative AI created.

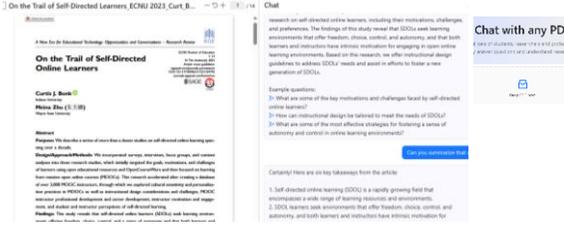


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August 21, 2023

Activity #16. ChatPDF:
Summarize Assigned Articles
https://curtbonk.com/R622_online_syllabus_fall_2023.htm

Input one or more of the assigned articles and have ChatPDF generate questions on it or key points or both.



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July 18, 2023

**Center for Teaching Innovation, Cornell University
CU Committee Report: Generative Artificial
Intelligence for Education and Pedagogy**

<https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIForEducation-Report_2.pdf

Activity #18. Computer Programming: High-level LLM-assisted design (Assess feasibility of code solution).

Provide students with an extremely description of the assignment. Goal is to focus on system design.

Ask students to:

1. Develop a human-readable specification for the software system.
2. Write a prompt that communicates to the Generative AI system these specifications and examples to produce test case.
3. Run prompt through the Gen AI system to produce test cases.
4. Assess the output code to see if it provided full coverage.

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July 18, 2023

**Center for Teaching Innovation, Cornell University
CU Committee Report: Generative Artificial
Intelligence for Education and Pedagogy**

<https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIForEducation-Report_2.pdf

Activity #19. Foster curiosity with conceptual questions in physics.

Students ask ChatGPT: Prompt GAI with a question such as: "If I weigh myself at the equator will I weigh more, less or the same as at the North Pole?"

ChatGPT will return: "Yes, your weight would be slightly different at the equator compared to the North Pole, but the difference is quite small and may not be noticeable without highly precise equipment. This weight difference is primarily due to the variation in Earth's shape and centrifugal force caused by its rotation."

Then ask students to perform the analysis underlying the qualitative answer above and to compute numerically their weight at the pole and at the equator as a way to gain understanding into the magnitude of this effect.

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<https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIForEducation-Report_2.pdf

Activity #20. Understanding assumptions common in engineering analyses.

Students ask ChatGPT: Prompt GAI with a question such as: "What are the underlying assumptions in beam theory?"

1. ChatGPT will return: "Linear Elasticity: Beam theory assumes that the material of the beam behaves elastically and follows Hooke's law. It assumes that the beam material is isotropic and that it deforms linearly under applied loads."

Then ask students to reflect on and assess the accuracy of the ChatGPT response.

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Activity #21. Mathematical Proofs: With Gen AI as an assistant.

Students ask Prompt GAI to "Prove that the solution to the 2D steady-state heat equation is unique."

ChatGPT will return: *To prove the uniqueness of the solution to the 2D steady-state heat equation, we can use the method of contradiction. Consider the 2D steady-state heat equation with homogeneous Dirichlet boundary conditions: $\nabla^2 u = 0$, where $u(x, y)$ represents the temperature distribution in the xy -plane, and ∇^2 is the Laplacian operator. Suppose there are two solutions to this equation, denoted as $u_1(x, y)$ and $u_2(x, y)$, that satisfy the same boundary conditions*

Then ask students to assess the accuracy of the solution. Follow up by having students test out different prompts; for example: "Is the solution to the 2D steady-state heat equation unique?"

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Activity #22. Pro and Con Debates.

- A. Use GAI to generate pro and con arguments for a debate that is relevant to the course.
- B. Review course material and readings to augment and strengthen these arguments.
- C. Come to class prepared to engage in a debate with classmates.
- D. After debate, discuss which arguments were strongest and why.
- E. In-class discussion or written reflection: Students critically analyze what makes a more effective argument.

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Activity #23. Summarize arguments and produce themes.

- A. Use GAI to summarize a meeting transcript into key themes (e.g., congressional meetings, central banker transcripts, corporate earnings reports, etc.).
- B. Students produce a memo that prioritizes the themes and adds contextual information on power dynamics or other relevant background information.
- C. In-class discussion or written reflection: Students critically analyze the usefulness of AI in the writing process.

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Activity #24. Assess validity of sources for accuracy and bias.

- A. Use GAI to find sources for an assignment relevant to the course.
- B. Students review sources, evaluating the usefulness and relevance to the assignment.
- C. Students conduct a similar search using library resources.
- D. Students produce an annotated bibliography that assesses the quality, relevance, and reliability of GAI and library sources.
- E. In-class discussion or written reflection: Students critically analyze the usefulness of AI to find reliable and unbiased sources.

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Activity #25. Editing Skills – pre-work for class discussion, in-class activity. (i.e., Two Heads are Better than One).

- A. Have students edit a paragraph or short paper on their own, using a prompt that makes sense for your course (e.g., make this paragraph more concise, strengthen the argument in this paragraph, explain the concept in this paragraph, etc.).
- B. Students run the original paragraph through GAI and ask it to do the same thing that students did in the first step.
- C. Have students review their editing choices as compared to the editing choices made by GAI and submit a final revised paragraph.
- D. Students complete a written or in-class reflection on why they included their final edits and how they were able to improve on what GAI provided.

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Activity #26. Revise for new audience & reflect – graded assignment. Turn a two-page proposal into a one-page proposal for a new audience. Two Heads Again.

- A. Have students use an assignment from earlier in the semester. Rewrite for new audience (e.g., proposal was originally written for a scientific audience and now needs to be rewritten for a lay-person).
- B. Use GAI to help shorten the original proposal.
- C. Critically analyze how GAI shortened the work given the new audience.
- D. Using GAI edits and their critical thinking, shorten original proposal to one page.
- E. Utilize (e.g., headings, sub-headings, bulleted lists or tables) to make the writing easy for the new audience to read quickly.
- F. Students write a reflection on how and why they modified their original proposal for the new audience, including how they were able to improve on what GAI provided.

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Activity #27. Generate outlines for written reports.

- A. Have GAI to assist them in generating an outline for report.
- B. Emphasize that GAI should be used as a tool for inspiration and guidance, rather than relying solely on its suggestions.
- C. Students modify and improve their outline, then evaluate it based on their logical structure, coherence, and adherence to the assignment requirements.
- D. In-class discussion or written reflection: Students critically analyze the usefulness of AI in the writing process.

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Activity #28. GAI as a Peer Editor.

- A. Ask GAI to offer constructive feedback on their writing, with specific suggestions for where and how to make improvements in grammar, logic, and flow (tailor this prompt to your desired outcomes).
- B. Students review the GAI feedback and make edits.
- C. Students respond to several reflection prompts including:
 - A. Which suggestions find effective? Not effective? Why?
 - B. As you review the feedback, did GAI help you notice patterns in the kinds of suggestions that you received? If so, identify and reflect on these patterns? Did it miss some?
 - C. How do you intend to apply the feedback you found effective in future writing?

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https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIForEducation-Report_2.pdf

Activity #29. Brainstorm Ideas for Assignment.

- A. Use GAI to brainstorm ideas for an assignment that is relevant to the course (e.g., topics for a research paper, research study ideas, new business ideas, marketing taglines, etc.).
- B. Students evaluate the ideas based on the established criteria for the assignment.
- C. Students further develop their preferred idea and complete the assignment.
- D. In-class discussion or written reflection: Students critically analyze the usefulness of AI in the brainstorming process.

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https://teaching.cornell.edu/sites/default/files/2023-09/Cornell-GenerativeAIforEducation-Report_2.pdf

Activity #30. Compare and Contrast Content Generation.

A. Use GAI to generate content on a particular topic that is relevant to the course (e.g., academic writing vs. business writing, Greek civilization vs. Roman civilization, differential calculus vs. integral calculus).

B. Assign a reading or book chapter on the same content.

C. In-class discussion or written reflection: Students critically analyze what GAI got correct, incorrect, or missed completely.

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**101+ Creative Ideas to Use AI
in Education**



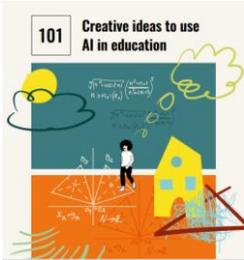
PART 3

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July 23, 2023

**101 creative ideas to use AI in education,
A crowdsourced collection**

Chrisi Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023.1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>



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July 23, 2023

**101 creative ideas to use AI in education,
Activity #31. Generating Feedback Poetry**

Chrisi Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023.1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
(University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

01 Generating feedback poetry

Author: Chrisi Nerantz	Role: Educator
Contact details: c.nerantz@leeds.ac.uk	Context: Education, Professional Development
Institution/Organisation: School of Education, University of Leeds	Target users: ChatGPT

My idea: Exploring the use of AI feedback poetry to engage students with the feedback they receive and give in new ways. Evidence suggests that students often don't engage with the feedback they receive. Feedback that

Where the inspiration comes from: It is strange (Carless, 2017). Could it also reduce the amount and time educators spend on providing feedback?

When the inspiration comes from: I have used alternative feedback



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**101 creative ideas to use AI in education,
Activity #32. AI Generated Art-Based Feedback**

Zenodo. <https://doi.org/10.5281/zenodo.8355454>

97 AI to generate art-based feedback

Author: Daniela Casanigh, Paola Corti, Bianca Santarelli	Institution/Organisation: Politecnico di Milano
Contact details: danielac.casanigh@polimi.it, paola.corti@polimi.it, bianca.santarelli@polimi.it	Context: Participants in an online/presence/hybrid course of all levels
Role: Educators	Target users: ChatGPT, Dall-E 2, iFlairbox

My idea: Provide peer-to-peer feedback using AI-generated art-based content to stimulate peer-group discussion and reflection.

What we are aiming to achieve:

- to help and open discussion on the results achieved by individuals/groups, and on the path followed during a learning experience, enriching the feedback with AI-based images. Providing peer-to-peer feedback can be challenging and emotionally demanding. AI can support this activity mediating its through tools that focus on the message in a creative way.
- as a tool at the beginning of the next activity/course, a lesson...
- Each participant/group of participant assigned/chooses an output creative and/or pedagogical of significance
 - They carefully look at the output and reflect.
 - They formulate their version of feedback for the assigned output.
 - Then, they use ChatGPT to generate text to be used on Dall-E 2 to generate art to accompany the text version.
 - The final feedback will include the a text, the prompt use a description of For a high level output that does not need any change. "Eagle" image is a clear base inspiration. Sky with open wings.
 - high level output with something that can be inspiring. "Dragon is a fantasy world, dark background."
- Open discussion in primary on the output.



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**101 creative ideas to use AI in education,
Activity #33. AI Ethics: Fostering Digital Literacies**

Chrisi Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023.1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
(University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

04 AI ethics: Fostering digital literacies

Author: Sandra Abegglen	Institution/Organisation: University of Calgary
Contact details: sandra.abegglen@ucalgary.ca	Context: Higher Education, Students
Role: Researcher	Target users: Millenials

My idea: Using AI, software and tools to create, reflect and discuss on digital technology and the use of AI in education.

When the inspiration comes from: Ethics is something to be studied in a particular context, not in the abstract. Ethics is something that can be studied in a particular context, not in the abstract. Ethics is something that can be studied in a particular context, not in the abstract.

Where the inspiration comes from: I am a researcher working on ethics education and I have been working with a strong interest in digital ethics education and digital literacy.



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101 creative ideas to use AI in education, Activity #34. TV Quizmaster!

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

10 TV Quizmaster!

My idea
Unlike ChatGPT (or a similar platform) as a host/facilitator simulating a television quiz format that students are familiar with. This might be a popular series in their region, suitable for delivery in a small group format. Working examples include: Who Wants to Be a Millionaire/Kaun Banega Crorepati (UK/India) or Family Feud/100 Mexicanos Diferentes – 100 preguntas (USA/Mexico/China). The format and content of each quiz can be refined or adapted as required through prompts, for example, to support the number

What I aim to achieve
If quiz content is insufficiently covered within ChatGPT's existing data, information or data can be manually pasted into the prompt area and requested to be included within information sources. This can also reduce potential accuracy issues and ensure that content is relevant. Some TV quiz formats may require increased creativity on the part of the physical players, for example, writing answers down privately, buzzing in to answer first, and using a timer.

Author: Rob Lindsay
Contact details: rob.lindsay@leeds.ac.uk
Role: Educational Developer
Institution/Organization: Centre for Innovation in Education, University of Leeds
Context: K-12, Higher Education, Formative assessment
Tools used: ChatGPT



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101 creative ideas to use AI in education, Activity #35. ChatGPT Conversation Starter (Meme)

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

13 ChatGPT: Wolf in sheep's clothing conversation starter

Author: Alexia Ball
Contact details: ball@ucalgary.ca, ball@leeds.ac.uk
Role: Educational Developer, Educator
Institution/Organization: American University in Cairo

My idea
I am aiming for students to do the research and find the above article or something like it or do the critical reading themselves for AI or ChatGPT.

Context: This magazine article on an explanation of Keynes' workers.

Wolf in Sheep's clothing is a good metaphor for ChatGPT's unethical practices in the process of creating "ethical AI"



Image credit by Maria Ball on Canva

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July 23, 2023

101 creative ideas to use AI in education Activity #36. Prompts for Active Learning

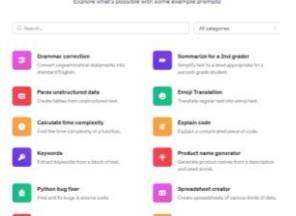
Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

20 ChatGPT prompts for active learning

My idea
This activity activity where students individually tackle a topic through the lens of three different types of ChatGPT prompts. Then, students set up to exchange what they learned from the process, and share those insights with the group.

Where the inspiration comes from
I was inspired by the free resource: <https://www.chronicle.com/articles/how-will-artificial-intelligence-change-higher-ed>

Prompt examples
Explore what's possible with some example prompts



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101 creative ideas to use AI in education, Activity #37. Warm Ups and New Creations

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (<https://www.chronicle.com/articles/how-will-artificial-intelligence-change-higher-ed>)

23 Creative warm-ups for ideas generation: Dream up a new creation

Author: Chrissi Nerantzi
Contact details: nerantzi@leeds.ac.uk
Role: School of Education, University of Leeds

My idea
This activity generation activity to open up our imagination and free the mind to create something different from the responses possible. It is a simple prompt that can be used with any material that doesn't seem to have a new point of view or an idea for a product. We can apply this to any subject.

Author: Chrissi Nerantzi
Contact details: nerantzi@leeds.ac.uk
Role: School of Education, University of Leeds

My idea
I am aiming for students to do the research and find the above article or something like it or do the critical reading themselves for AI or ChatGPT.

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101 creative ideas to use AI in education, Activity #38. Rewriting with AI Image Generators

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

34 Rewriting with AI Image Generators

Author: Christopher Sean Harris
Contact details: chris35@calstatela.edu
Role: Educator
Institution/Organization: California State University

My idea
Rewriting with AI Image Generators. Students read and write effective & brief summaries of their writing to provide an AI image generator with pertinent instructions. Additionally, students must provide the AI tool with a context, a desired subject, and content. The exercise helps students summarize in structure as well as learn how to thoughtfully and effectively collaborate with AI tools.

Where the inspiration comes from
Discussing their multimodal memos, students created sets of images they could use. I suggested AI and prompt AI while reading the prompt. From there, we discussed ways to refine the prompt to direct the AI to produce

Author: Rob Lindsay
Contact details: rob.lindsay@leeds.ac.uk
Role: Educational Developer
Institution/Organization: Centre for Innovation in Education, University of Leeds
Context: K-12, Higher Education, Formative assessment
Tools used: ChatGPT



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101 creative ideas to use AI in education, Activity #39. ChatGPT as Debate Partner

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (<https://www.chronicle.com/articles/how-will-artificial-intelligence-change-higher-ed>)

36 Use ChatGPT as a debate partner

Author: Katharine Jewitt
Contact details: katharine.jewitt@open.ac.uk
Role: Educator

My idea
Students can use ChatGPT as a debate partner to go back and forth using ChatGPT to examine every side of a particular issue. Learning to critically think, problem solve, build links between ideas and synthesise complex information can have far reaching effects in every aspect of a student's life (Clark, 2007).

Institution/Organization: The Open University
Context: Education, Professional Development
Tools used: ChatGPT



Where the inspiration comes from
I have used the debate process with students to encourage active learning and help increase critical thinking. Student feedback showed that the broad debating a wide range to explore and improve their knowledge on a topic and improve their skills to learn work, communication and critical thinking. However, some lacked confidence in presenting in public, so using ChatGPT as a way

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101 creative ideas to use AI in education, Activity #40. ChatGPT for Critical Thinking

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>

41 Use ChatGPT for critical thinking (and referencing)

Author: Jean-Paul Van Belle
Contact details: Jean-Paul.VanBelle@uct.ac.za
Role: Educator
Institution/organisation: University of Cape Town

My idea
Stimulate critical thinking by letting students figure out a question in a particular domain there it was Project Management, but could have been anything, asking the ChatGPT to answer it. He writes a mini-essay providing both positive and at least one negative criticism on the ChatGPT grounded in academic literature references.

What I aim to achieve
Move away from preventing students from using ChatGPT but instead allowing it so that they have to learn to think critically and interrogate AI outputs (esp. so-called "hallucinations but also do their own research on the topic (with references)

Where the inspiration comes from
Instead of trying to blindly assume that students would use it for plagiarising, I wanted to tackle the ChatGPT 'challenge' head-on by co-opting it into their writing/



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101 creative ideas to use AI in education, Activity #41. Chat with Anyone in Past

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>

55 Chat with anyone from the past

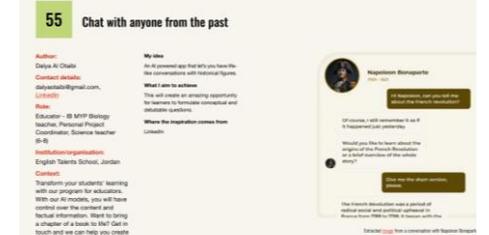
Author: Danya Al Chabi
Contact details: danyaalchi@gmail.com
Role: Educator - B MPP Biology Teacher, Postdoc Fellow
Institution/organisation: English Talents School, Jordan

My idea
An AI-powered app that lets you have the conversations with historical figures.

What I aim to achieve
This will create an amazing opportunity for learners to formulate contextual and academic questions.

Where the inspiration comes from
LinkedIn

Context:
Transform your students' learning with our AI models, you will have access to a vast amount of factual information. Want to bring a character of a book to life? Chat with them and we can help you create an exciting and engaging educational experience.



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July 23, 2023

101 creative ideas to use AI in education, Activity #42. Case Study Generation and Discussion

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>

58 Endless case studies: Using ChatGPT for authentic practice scenarios

Author: Fay Booth
Role: Professor in Counselling
Context: Creating new clinical case studies for practice discussion.

My idea
To enhance understanding of cases, counselling students need to engage their knowledge of various aspects such as ethics, boundaries, relationships, and techniques. Case study discussions are vital for the applied knowledge, as they need to practice applying with a diverse range of case studies that cover different mental health difficulties and ethical issues. Therefore, creating a comprehensive case study bank is essential for students to have a variety of individual students. AI could generate relevant case studies for

What I aim to achieve
Students will be able to generate novel case studies. These case studies can be shared to focus specifically on the aspects that are most challenging for them. This can then be used for case study discussions or used for practice. This will also allow for the generation of case studies that are relevant to specific areas of interest, such as ethics, boundaries, and relationships.

Where the inspiration comes from
Case study discussions have become a vital part of my training for my practice. I found it to be helpful to have a variety of case studies to use in my sessions and realized that the students could benefit from this as well.



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July 23, 2023

101 creative ideas to use AI in education, Activity #43. The AI Podcast Show

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>

73 The AI Podcast

Author(s): Chris Wood, ChatGPT
Contact details: chris.wood@port.ac.uk
Role: Learning Support Analyst
Institution/organisation: Portsmouth University

My idea
A podcast that combines AI-generated, free content to teach.

What I aim to achieve
To make sure that all our content can be interactive, accessible learning tool.

Where the inspiration comes from
A long-running podcast featuring a wide range of academic disciplines.

Context:
AI is taking the education world by storm - this is a one-of-a-kind, innovative approach to using AI within the classroom that can be applied in a variety of settings.

Tools used: ChatGPT, DALL-E 2, Squarespace, iStockphoto



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August 15, 2023

ChatGPT and generative AI: 25 applications in teaching and assessment

Seb Dianati & Suman Laudari, Charles Darwin University
<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

- 1. Mark student essays:** Function as an Australian university academic, teaching assessment to pre-service teachers and mark this essay, identify and provide solutions for grammatical and syntax errors.
- 2. Develop a rubric:** Develop a marking rubric for an end presentation for an introduction to tort law. Include criteria for each section. Include weighted percentages and word proficiency is needed at the pass, credit, distinction and high distinction.
- 3. Develop multiple-choice questions based on an article:** Function as a teacher and write me 10 multiple-choice questions relating to this learning resource from this week. Make some questions more difficult than others. Include one with the response being 'none of the above' and another 'all of the above'. Ensure it is written with higher-order thinking in mind.
- 4. Develop a curriculum:** As a teacher, write me a complete curriculum for first-year marketing. Examine, if possible, other marketing curricula. Outline the main learning outcomes for each week. Develop a 12-week syllabus. Ensure one week covers ethics and sustainability.
- 5. Generate short-form (short answer) quiz questions and test questions:** Can you generate quizzes and test questions on digital learning design? Include simple, medium and tough questions. Ensure there are not multiple-choice questions. One answer is correct. Provide tabbed solutions for each answer.
- 6. Generate discussion prompts:** Can you generate discussion prompts for
- 16. Spark a debate:** Can you respond to the following question/s/topic: on first-year student needs from culturally and linguistically diverse backgrounds and affirmative action? Be critical and provide arguments for and against. Ensure to include supporting examples for class debate.
- 17. Create exemplars for assessment tasks:** Offer suggestions that can function as an exemplar on how to write an effective introduction in an essay. Also, how to do an effective abstract.
- 18. Assessment ideas using ChatGPT for students:** Develop 10 assessment ideas whereby students need to use ChatGPT on their assessment to make more critical academic decisions, with a mix of formative and summative assessment ideas.
- 19. Develop an alternative lesson plan:** Develop an alternative lesson plan on the artificial intelligence for a particularly gifted student. Include time needed for each activity.
- 20. Provide YouTube summaries:** Use this YouTube transcript of a previous teacher and summarise their video into 10 bullet points. How use this data to help me develop my presentation. Outline things I've learned or transcripts.
- 21. Plan notes for a tutorial:** Act as a university teacher. Plan an online class teaching first-year biomedical engineering. Engage

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August 15, 2023

ChatGPT and generative AI: 25 applications in teaching and assessment

Seb Dianati & Suman Laudari, Charles Darwin University
<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

Activity #44. Generate Case Studies

- A. Design four real-world case studies on supply and demand for my first-year microeconomics class.**
- B. Include answers to the supply-and-demand problem.**
- C. Include a lesson plan associated with the case studies for an online class. Include case studies that students can connect to in their real life.**
- D. Outline learning outcomes for the class and place them in front of each case study.**

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August 15, 2023

**ChatGPT and generative AI:
25 applications in teaching and assessment**
Seb Dianati & Suman Laudari, Charles Darwin University

<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

Activity #45. Provide Explanations and Reflection Questions.

- Provide the 10 most common misconceptions and explanations of Carl Jung's work in psychology and how it differs from Sigmund Freud's.
- Include a Q&A list of prompts for my first-year unit in educational psychology to evaluate their knowledge after class on the topic above.



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August 15, 2023

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<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

Activity #46. Generate Code Snippets.

Ask ChatGPT: How do I make an HTTP request in JavaScript? Answer as if you were teaching first-year programming and offer examples, solutions, issues and common mistakes.



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August 15, 2023

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<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

Activity #47. Develop Ice-Breaker or Team Building Exercises.

- Act as if it is the first day of class and use proven and effective rapport-building exercises for students to create a sense of community.
- Develop a series of questions for online students to engage in the class at the same time as I am delivering the class in a physical classroom.



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May 11, 2020

Activity #48. What is smileUP & How to use it?
SMILE, Stanford

<https://www.youtube.com/watch?v=pblU8sSALWo>

Experimentation question cards for GPT-3

Ask a question

With the help of GPT-3.5, your question will be evaluated on a rubric from Level 1 to Level 5 aligned to Bloom's Taxonomy.

What would happen to human mobility if gravity is decreasing by 20%?

Submit question

Great job! This question meets the criteria for a level 5 question. It describes an uncertain situation (gravity decreasing by 20%) and uses a conditional structure ("what would happen?") to prompt creative thinking. Such a scenario would indeed have significant implications for human mobility, as gravity plays a fundamental role in our ability to move and maintain balance on Earth. Well done!



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May 11, 2020

What is smileUP & How to use it?
SMILE, Stanford

<https://www.youtube.com/watch?v=pblU8sSALWo>

Critical thinking is a cognitive skill that involves analyzing, evaluating, synthesizing, and applying information to make informed decisions, solve problems, and form well-reasoned conclusions. It goes beyond surface level comprehension and involves deeper levels of understanding and processing.

Critical thinkers engage in logical reasoning, questioning assumptions, considering multiple perspectives, and recognizing biases. It empowers student teachers to be adaptable, reflective, and innovative educators who can create engaging learning environments, promote higher-order thinking, and prepare their students for success in an ever-changing world.



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November 23, 2023

Activity #49. Using AI Text as Prompts for Critical Analysis (TextGenEd)

Juan Pablo Pardo-Guerra, UC San Diego

<https://wac.colostate.edu/repository/collections/textgened/rhetorical-engagements/using-ai-text-as-prompts-for-critical-analysis/>

In this assignment, students are provided with an AI-generated text relevant to a course's topics and focus and then asked to comment, review, and expand on it using a feature such as "track changes." In engaging with the AI-generated text, students review their knowledge, offer critiques, modify theoretical and empirical claims, and provide concrete examples that illustrate or disprove the provided answer.



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October 5, 2023

Activity #50. Annotate a ChatGPT-Generated Essay

Gregg L. Michel, University of Texas at San Antonio
<https://www.chronicle.com/newsletter/teaching/2023-10-05>
<https://web.hypothes.is/>

Gregg L. Michel, an associate professor of history at the University of Texas at San Antonio, asked **students in an upper-level course on the history of the civil-rights movement to work in groups to annotate a ChatGPT-generated essay using Hypothes.is**. Then each the group rewrote the essay, using what they wanted of the original in the final draft.



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October 5, 2023

Activity #51. ChatGPT as a Summary and Synthesis Tool

Dan Sarofian-Butin, Professor of Education, Merrimack College
<https://www.chronicle.com/newsletter/teaching/2023-10-05>
<https://web.hypothes.is/>

Dan Sarofian-Butin, a professor of education at Merrimack College... In an introductory education course and an introductory diversity course this semester **he wanted students to understand ChatGPT's ability to summarize and synthesize complex issues**. "I require students to use ChatGPT in class and in every minor and major assignment (formative and summative; low and high stakes)," he wrote.



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November 13, 2023

Why You Should Rethink Your Resistance to ChatGPT
 Flower Darby, Chronicle of Higher Education

Activity #52. Compare Results

<https://www.chronicle.com/article/why-you-should-rethink-your-resistance-to-chatgpt>

Caleb Curfman, history instructor, Northland Community and Technical College in Minnesota, in a recent episode of Assess Without Stress podcast, <https://open.spotify.com/episode/0Ldm8utYZqMqNfhncI7CNjE> ...he and his students **ask ChatGPT to design the perfect government**. Students compare their text, images, and code and then evaluate ChatGPT results.



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November 23, 2023

Activity #53. Critical Assessment and Analysis Exercise (TextGenEd)

Nathan Murray, University of Mississippi

Elisa Tersigni, University of Toronto Mississauga

<https://wac.colostate.edu/repository/collections/textgened/ai-literacy/>

This assignment asks first-year critical writing students to **evaluate** the reliability, factuality, and **internal reasoning of three anonymized texts**, one written by AI, that present conflicting opinions or information. By considering the strengths and weaknesses of these texts independent of contextual information, students are encouraged to develop critical reading skills as well as an awareness of the prevalence of misinformation from both human-generated and AI-generated sources online today.



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November 23, 2023

Activity #54. Promoting Ethical AI Literacy in an Undergraduate Course (TextGenEd)

Mike Frazier, Michigan State University, Lauren Hensley, Ohio Wesleyan University

<https://wac.colostate.edu/repository/collections/textgened/ethical-considerations/>

This assignment proposes the integration of generative AI tools, such as ChatGPT, into a **college learning and motivation strategies course**, with the dual focus of enhancing metacognition and promoting ethical AI use. **Students engage with AI-generated artifacts, compare outputs with their own work, and reflect on the implications of AI in their academic and professional lives**. The approach can be adapted for various courses, encouraging a critical examination of AI's role in learning and its potential impact on future careers.



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November 13, 2023

MIT AI for Filmmaking Hackathon 2023 Brings Dreams to Life

Activity #55. Script Generation, Image Creation, Filmmaking

<https://www.media.mit.edu/posts/mit-ai-for-filmmaking-hackathon-2023-brings-dreams-to-life/>



MIT Research
 October 2023
 Fall 2023

Can you remember, let alone depict, your dreams? Dreams have traditionally been difficult to express, due to their abstract and intangible nature. However, with the recent emergence of generative AI technology such as DALL-E 2, generative image creation is easier, and more vibrant, than ever. MIT researchers are exploring how to use this technology to help people visualize their dreams.

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May 25, 2023
Activity #56. Counseling or Social Worker Session Practice
 Chat with heypi; especially good for social/emotional/burnout support
<https://heypi.com/talk>

Talk to Pi, your personal AI

they flew from Las Vegas to Indianapolis

Oh wow! That's a bit of a flight. But totally worth it to spend time with family, right? 🍷 🍷 Did they stay with you, or at a hotel? With me

Oh, even better! Spending lots of quality time together. Sounds like a lovely visit 🍷. How long did they stay with you for? 2 nights

Awww, that's such a lovely amount of time! Long enough to catch up, have some quality time, and not quite so long that you're sick of each other by the end 🍷. Did you all do anything fun together while they were visiting?

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July 12, 2023
Activity #57. Generate Plans, Guides, Checklists, and Instructional Design Materials
 Daniel Stanford's Substack
https://danielstanford.substack.com/p/incorporating-ai-in-teaching-practice?r=beta&utm_campaign=post&utm_medium=web

Example Activity: Generate guides, checklists, plans, or instructional materials.

They could be used by students as part of an assignment where they develop similar materials to demonstrate their mastery of the subject matter.

Example prompts:

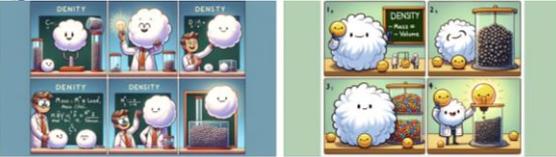
- Create a nutrition plan for a diabetic patient that incorporates the following foods. [Insert foods here.] Provide recipes for breakfast, lunch and dinner for each day of the week.
- Write 20 quiz questions that test past-tense verb conjugation for ESL learners with moderate fluency.
- Create a checklist of dos and don'ts for an entrepreneur documenting business expenses for tax purposes.

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November 15, 2023
Activity #57. DALL-E Created Cartoon Strips
 Even though DALL-E created great cartoon strips, it could not verbally explain the meaning of density in a friendly way without using the formula. Heejung An, William Paterson University

1. Create a cartoon strip that explains density.
2. Create a cartoon strip that demonstrates an understanding of density.
<https://www.nature.com/articles/641586-023-03507-3>

DALL-E



Here's a cartoon strip that explains the concept of density. Each panel illustrates a key aspect of density in an engaging and educational way.

105

Comic Creator
<https://www.storyboardthat.com/comic-maker>



106

Language Education

PART 4



107

RQ2: How do content creators describe their current practices of using ChatGPT in language ed?

Q2a. How do they perceive the potential benefits and drawbacks of incorporating ChatGPT in language learning?

Drawbacks of ChatGPT

1. Lack of emotional or empathetic responses.
2. Limited creativity.
3. Lack of context awareness.
4. Potential of generating inaccurate or inappropriate responses.
5. Incomplete information.
6. Repetition of information.
7. Potential for bias.
8. Inability to learn beyond its training data which goes up until 2021.
9. Potential misuse for malicious purposes.
10. Syntax and grammatical errors.
11. Does not provide much opportunity for speaking practice.

 INDIANA UNIVERSITY ALUMNI ASSOCIATION

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August 14, 2023
Prompts for Vocabulary Building
 Master a New Language with ChatGPT: Your Ultimate Language Learning Companion
<https://www.learnprompt.org/chatgpt-prompts-for-language-learning/>

Prompts for Vocabulary Building

1. List [number] [adjectives/nouns/verbs] in [target language].
2. Come up with [number] words that start with [letter] in [target language].
3. Provide me [number] idioms or expressions in [target language].
4. Generate a [target language] vocabulary quiz.
5. Give me [number] synonyms and antonyms for [word] in [target language].
6. Provide me a list of [number] common expressions in [target language] that I can use in everyday conversation.
7. Help me expand my vocabulary in [target language] by suggesting [number] words related to [topic].

Prompts for Practice Conversations

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April 3, 2023
Activity #58. Ask ChatGPT for Definitions and Sample Sentences
ChatGPT for Language Teaching and Learning
<https://journals.sagepub.com.proxylib.uits.iu.edu/doi/epub/10.1177/00336882231162868>

Can you define "bureaucracy", identify its parts of speech and provide sample sentences and additional meanings?

Bureaucracy is a noun that refers to a system of government in which most of the important decisions are made by state officials rather than by elected representatives. It is also used to refer to any large organization, especially one that is hierarchical and has a lot of rules and procedures.

Parts of speech: Noun

Sample sentences:

- * The bureaucracy of the government made it difficult for the citizens to get their voices heard.
- * The bureaucracy of the company made it hard for employees to get things done.

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April 3, 2023
Activity #59. Ask ChatGPT to Write Dialogues or Produce Different Genres of Text, or Provide Examples on a Topic (e.g., Write an Advertisement)
ChatGPT for Language Teaching and Learning
<https://journals.sagepub.com.proxylib.uits.iu.edu/doi/epub/10.1177/00336882231162868>

Can you write an advertisement from an electric company?

"Are you tired of high energy bills and unreliable service? Look no further! Our electric company is here to provide you with affordable, reliable energy that you can count on. We offer a variety of flexible plans to meet your needs and budget. Plus, with our state-of-the-art technology and 24/7 customer support, you can trust that you're in good hands. Don't wait any longer, switch to our electric company and start saving today!"

Figure 3. ChatGPT response to a request to write an advertisement.

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April 3, 2023
Activity #60. Ask ChatGPT to Rewrite Dialogue to Another Language (e.g., Chinese)
ChatGPT for Language Teaching and Learning
<https://journals.sagepub.com.proxylib.uits.iu.edu/doi/epub/10.1177/00336882231162868>

Can you rewrite the dialogue in Chinese?

艾米: 嘿, 你看到我们这个月的电费账单比上个月多了吗?
 汤姆: 是的, 我出意料了, 我不知道为什么会涨。
 艾米: 我明白电力公司提高了价格。
 汤姆: 太烦了, 我们已经很难付清所有的账单了, 现在还得多付电费。
 艾米: 我知道, 而且随着夏天的到来, 我们得更多地使用空调, 这可能会让账单更高。
 汤姆: 也许我们应该去看看其他电力供应商, 看看能不能找到更优惠的价格。
 艾米: 好主意, 值得试一试, 看看能不能省点钱。
 汤姆: 同意。

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April 3, 2023
Activity #61. Translate to Other Languages
ChatGPT for Language Teaching and Learning
<https://journals.sagepub.com.proxylib.uits.iu.edu/doi/epub/10.1177/00336882231162868>

Can you explain dyslexia in Chinese?

阅读障碍是一种影响阅读和写作的学习障碍, 其特征是在智力正常或高于平均水平的情況下难以解码单词并理解书面语言。

阅读障碍的人常常难以认出和操纵组成单词的单个声音 (或音位)。他们还可能在学习方面有困难, 并混淆看起来相似的单词。阅读障碍可能会影响任何年龄段的人, 但最常在学龄初期诊断儿童。

阅读障碍不是由智力或缺乏努力造成的, 但被认为与大脑结构和功能的差异有关。它通常是遗传的, 这意味着它在家庭中往往会遗传。阅读障碍可以通过专门的阅读教学、课堂上的安排和辅助技术进行治疗。

Figure 1. ChatGPT response to a question about the meaning of a word in English and Chinese.

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April 3, 2023
Activity #62. Ask ChatGPT to Generate Comprehension and Open-Ended Questions
ChatGPT for Language Teaching and Learning
<https://journals.sagepub.com.proxylib.uits.iu.edu/doi/epub/10.1177/00336882231162868>

Can you generate comprehension and expansion questions (open-ended or multiple-choice) to accompany the story?

Comprehension questions:

1. Why was Alice feeling tired in the beginning of the story?
2. What did Alice think about the book her sister was reading?
3. What did Alice consider doing to pass the time?
4. What did the White Rabbit do that caught Alice's attention?
5. Why did Alice follow the White Rabbit?

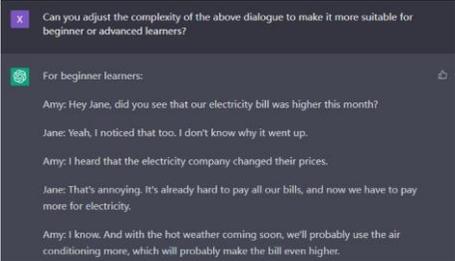
Expansion questions:

1. Describe Alice's emotions when she saw the White Rabbit take out a watch.
2. What other unusual things did Alice notice about the White Rabbit?

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April 3, 2023

Activity #63. Ask ChatGPT to Adjust Language Complexity in the Dialogue
ChatGPT for Language Teaching and Learning
<https://journals-sagepub-com.proxylib.uits.liu.edu/doi/epub/10.1177/00336882231162868>



Can you adjust the complexity of the above dialogue to make it more suitable for beginner or advanced learners?

For beginner learners:

Amy: Hey Jane, did you see that our electricity bill was higher this month?

Jane: Yeah, I noticed that too. I don't know why it went up.

Amy: I heard that the electricity company changed their prices.

Jane: That's annoying. It's already hard to pay all our bills, and now we have to pay more for electricity.

Amy: I know. And with the hot weather coming soon, we'll probably use the air conditioning more, which will probably make the bill even higher.

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April 3, 2023

Activity #64. Ask ChatGPT to create vocabulary Notes and Explanations in Another Language
ChatGPT for Language Teaching and Learning
<https://journals-sagepub-com.proxylib.uits.liu.edu/doi/epub/10.1177/00336882231162868>



This time, display the text sentence by sentence. First, show the English sentence, then the vocabulary notes in Chinese for that sentence, and finally, the Chinese translation of that sentence. Do this for the entire paragraph (Alice was not a bit hurt, and she jumped up on to her feet in a moment: she looked up, but it was all dark overhead, before her was another long passage, and the White Rabbit was still in sight, hurrying down it. There was not a moment to be lost: away went Alice like the wind, and was just in time to hear it say, as it turned a corner, "Oh my ears, how late it's getting!")

Sentence: Alice was not a bit hurt, and she jumped up on to her feet in a moment.
 Vocabulary notes: not a bit 一点也不, jumped up: 跳起来, on to her feet: 跳到脚上, in a moment: 立刻
 Translation: 爱丽丝一点也不受伤, 她立刻跳到脚上跳起来。

Sentence: she looked up, but it was all dark overhead;
 Vocabulary notes: looked up: 向上看, dark: 黑, overhead: 在头顶上方
 Translation: 她向上看, 但头顶上方一片漆黑。

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February 4, 2023

Activity #65. ChatGPT Assessment Exercises
ChatGPT for language learning – All the prompts you need
 Theodosios Karageorgakis, Educraft
<https://educraft.tech/chatgpt-in-the-language-learning/>

Assessments - Exercises

Let's now ask ChatGPT to create an exercise for our students regarding the above topic.

Provide me with 5 fill-in-the-blank questions on the topic. Give me 3 choices for each question highlighting the correct one. Use "some, any, many, a few, few, five).

Note how I specified the type and number of question items I want the AI to share.

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September 2023

Guidance for Generative AI in Education and Research
 Ms Stefania Giannini, UNESCO
 Fengchun Miao, Wayne Holmes
<https://unesdoc.unesco.org/ark:/48223/pf0000386693>

Guidance for generative AI in education and research



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Poll #5: Will instructors be replaced by ChatGPT and Generative AI?

- Definitely not!
- I will wait and see...
- Perhaps some instructors might.
- Most entry level instructors will likely be replaced.
- All instructors should fear losing their jobs.



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Poll #6. Closing question...

How many new teaching, tutoring, or training ideas did you get from this session? tutoring?

- None
- 1 or 2
- 3 to 5
- 6 to 10
- More than 10



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Poll #7. Closing question...

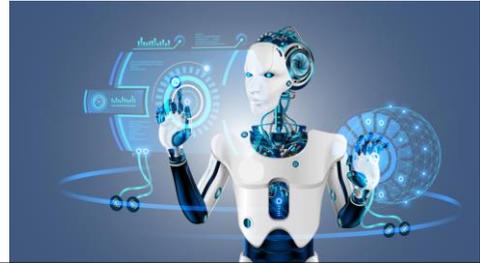
How many **learning ideas** did you get from this session?

- a. None
- b. 1 or 2
- c. 3 to 5
- d. 6 to 10
- e. More than 10



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Closing questions...in the chat window



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Chat Window Sharing:
If we had Part #3 on Generative AI Pedagogy, what should it contain or address?



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Any Questions or Comments?

Slides at: [TrainingShare.com](https://www.trainingshare.com) (go to "Archived Talks")

Papers: [PublicationShare.com](https://www.publicationshare.com)

Free book: <http://tec-variety.com/>

Free Course: <https://colcommons.org/welcome/coursedetails/8>

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