Innovative AI Pedagogy in Language Classrooms and Beyond

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Poll #1. Warm-up question...

Have you used Generative AI tools in your teaching in the past few months?

- b. Yes, one time.
- c. Yes, a few times.
- d. Yes, many times.
- e. Yes, every chance that I can get.



Poll #2. Warm-up question...

- 2. Have you used a Generative AI tool or platform for any of your formal or informal learning on a daily basis?
- a. Yes.
- b. No.



Poll #3. Warm-up questions...

How often do you use Generative AI tools for learning or teaching a language?

- a. Lots of times each day.
- b. Nearly every day.
- c. About once a week.
- d. About once a month.
- e. Just once or twice to test it out.
- f. Never. Never. Never.

3



What is an AI **Assisted Writing**

5

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Wang, C., Li, Z., & Bonk, C. J. (2024, online first). Understanding self-directed learning in AI-assisted writing: A mixed methods study of postsecondary learners. Computers & Education: Artificial Intelligence, 10, 1-10. https://doi.org/10.1016/j.caeai.2024.100247; 384 survey responses and 10 sen structured interviews with postsecondary writers. Table 1. Mean score and standard deviation of the specific components of participants' writing facilitated by ChatGPT Items 4.23 0.96 1. I use ChatGPT to help brainstorm ideas for writing. 2. I use ChatGPT to help with outlining. 4.06 1.14 3. I use ChatGPT to help translate my ideas and thoughts into written words. 4. I use ChatGPT to improve my wording, sentence structure, or grammar. 4.10 1.10 5. I use ChatGPT to check the cohesion or connection among sentences. 3.82 1.22 6. I use ChatGPT to improve the structure of my writing. 7. I use ChatGPT to improve the content or ideas of my writing. 8. I use ChatGPT to check if my writing matches my goals or the requirements of Ш

Li, Z., Wang, C., & Bonk, C. J. (2024). Exploring the utility of ChatGPT for self-directed online language learning. Online Learning, 28(3), 157-180. (276 survey respondents, 11 interviews in the USA)

Figure 1

Frequency Of Ling ChatGPT to Facilitate Language Learning.

How often do you use ChatGPT to facilitate your language learning?

Doly Markety Marke

9 10

Li, Z., Wang, C., & Bonk, C. J. (in review). ChatGPT as a tool for teachers' self-directed professional development. *Journal of Teacher Ed.* Note: We used a mixed-method approach to collect and analyze 298 completed survey responses, five individual semi-structured interviews, and documents (e.g., ChatGPT chat history regarding SDPD usage). What specific types of educational activities do you engage in with ChatGPT? (Please select all that apply) Percentage Getting inspiration for classroom pedagogies, class activities, and lesson plans (e.g., learning materials, PowerPoint slides) 19.49% 17.97% Generating practice questions or quizzes Creating customized educational content (e.g., learning materials, PowerPoint slides) 15.75% Providing explanations or clarification on various subjects 12.37% ouraging critical thinking and problem-solving Supporting special needs students with individualized instruction 6.88% Offering writing assistance or feedback to students Facilitating language learning and translation ancing classroom discussions through AI-generated Ü м

11 12







RQ1: What is the focus of the discussion and demonstrations by the YouTube content creators of ChatGPT in language education? 1c. What are common topics & themes present in these discussions and demos? Codes

Natural/human-like conversation
Ask it questions and it gives you anse
Possessing extensive knowledge
Vartual Assistant Introduce ChatGPT Roles of ChatGPT Hands-on Demonstration Attitudes toward ChatGPT

16

RQ2: How do content creators describe current practices of using ChatGPT in language ed? Q2a. How do they perceive the potential benefits and drawbacks of incorporating ChatGPT in language learning? Benefits of ChatGPT 1. Providing optimization and enhancement of language learning platforms as an augmentative learning device.

2. Assistance with general questions, vocabulary building, writing tasks, language practice, test preparation, annotating texts, translations, and personalized learning.

3. Acting as an accessible and affordable 24/7 tutor providing relevant information to users as it learns from their interactions.

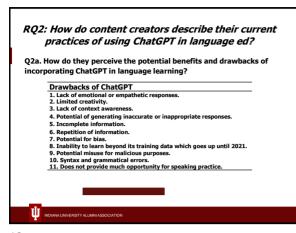
4. Engaging in conversations and practicing the language in a safe and rtable environment without fear of judgment or mistakes. ${\bf 5.} \ {\bf Being \ especially \ beneficial \ for \ students \ who \ {\bf struggle \ with \ traditional } \\$ teaching methods or have special learning needs.

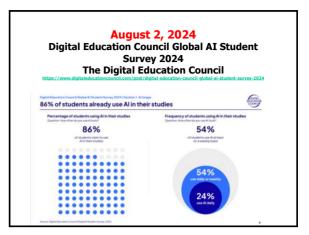
RQ2: How do content creators describe their current practices of using ChatGPT in language ed? Q2a. How do they perceive the potential benefits and drawbacks of incorporating ChatGPT in language learning? Benefits of ChatGPT 6. Creating bespoke content such as learning texts, worksheets, and lesson plans.
7. Helping with job interviews in a foreign language and practicing conversation by generating responses to questions. 8. Providing highly tailored content and transforming how individuals learn 9. Enhancing the language learning experience by fostering learner me improving efficiency, and promoting attentiveness and observation skills

10. Creating an engaging and accessible learning environment that make ent that makes language education more enjoyable and readily accessible for learners.

11 Reducing the workload of language teachers.

17 18





August 2, 2024

Digital Education Council Global AI Student Survey 2024
The Digital Education Council

https://www.digitaleductioncount.com/pot/digital-education-council-global-ai-student-survey-2024

The Digital Education Council

https://www.digitaleductioncount.com/pot/digital-education-council-global-ai-student-survey-2024

The Digital Education Council

The Digital

August 1, 2024

Exploring AI: Students Share Their Awareness and Usage of Generative AI

Rachel Janzen, Clare Church, and Radhe Paleia

https://forum.academics.or/forum/republing-is-istudents-peaks-look-their-www.renes-and-usage-of-chatgot

Awareness: What Generative AI Tools Are Students Familiar

With?

We set an extra death their familiary with generative AI Tools Are Students Familiar

With?

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August 1, 2024

Exploring AI: Students Share Their Awareness and Usage of Generative AI

Rachel Janzen, Clare Church, and Radhe Paleia

https://forum.academica.ca/forum/exploring-al-students-speak-about-their-awareness-and-usage-of-chatgut

Figure 2. What did you use ChatGPT or other generative Al tools for? Please select all that apply (2024 n= 493, 2023 n=104)

2024 # 2029

As a teaming aid (e.g., to reword a question, derifying contends

To write part of an assignment

To write part of an assignment

To write a full asignment

Other

August 23, 2024

Crunch the Numbers—New Data on AI in Higher Ed Kevin Hogan, Penn Foster Group, eCampus News https://www.acmpusnew.com/indeviden-indights/2024/08/21/crund-the-numbers-new-data-on-ai-in-higher-extraore-setz-dent-finance-restraints-and-setz-dent-finance-restraints-and-setz-dent-finance-restraints-and-setz-dent-finance-restraints-and-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-setz-dent-sesson-date-sesso

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July 12, 2024 More college students say AI helps them earn better grades Laura Ascione, eCampus News https://www.ecampusmews.com/heaching-learning/2024/07/12/college-students-al-better-grades/. A Pearson research survey of 800 nationally representative U.S. college students, conducted with Morning Consult, shows an increasing interest in using AI tools for study. Fifty-one percent of spring semester students said generative AI has helped them get better grades, a 4-percentage point increase from Fail '23. Fifty-six percent of spring semester students said generative AI has helped them be more efficient, a 7-percentage point increase

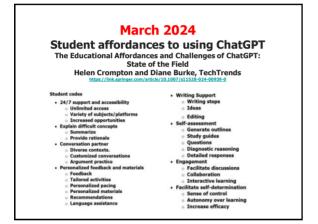
- has helped them be more efficient, a 7-percentage point increase from Fall '23.
- Forty-four percent of students are seeking tools to walk them through problems.
- Nearly 60 percent of students are interested in trying new generative AI tools.

New Survey Finds Al is Replacing Tutors for Students

Some of the reasons cited for ChatGPT usage include:

Ease of access and convenience of 24/7 availability
Personalized learning experiences tailored to each student's needs
Interactive and engaging experience appeals to students
Comfortability in interacting with a chatbot
Judgment-free zone when seeking citations or asking questions
Anonymity fosters a more inclusive learning environment
Encouragement to explore and learn without hesitation

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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/arki/48223/pf0000386693

Guidance for generative AI
in education and research

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April 3, 2023

Affordances and Pedagogical Benefits
ChatGPT for Language Teaching and Learning

It can:

- 1. Identify the meaning of a word in context,
- 2. Correct and explain language mistakes,
- 3. Create texts in various genres (e.g., emails, stories, recipes),
- 4. Develop quizzes,
- 5. Annotate texts, and
- 6. Offer dictionary definitions, example sentences, and translations

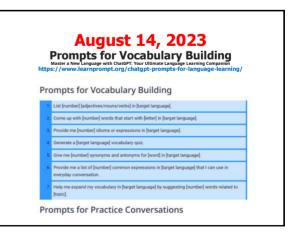
31 32



November 2023
Design Prompts
Exploring Applications of ChatGPT to English
Language Teaching: Opportunities, Challenges, and
Recommendations
https://exited-sovering/files/107/int.pdf
https://exited-s

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April 3, 2023

Activity #2. Clarify Word Meanings
ChatGPT for Language Teaching and
Learning
https://iournale-sagegub-com.proor/lub.ulis.lu.edu/dol/epub/10.1177/00336882231162868

Hi, I don't understand what 'dyslexia' means in the following magazine article. Can
you explain it to me?

Dyslexia is a learning disorder that affects reading and writing. It is characterized by
difficulty in decoding words and understanding written language, despite having
normal or above-average intelligence.

People with dyslexia often have trouble recognizing and manipulating the individual
sounds, or phonemes, that make up words. They may also have difficulty with
spelling and may confuse similar-looking words. Dyslexia can affect people of any
age, but it is most commonly diagnosed in children during the early years of school.

37 38

April 3, 2023

Activity #4. Ask ChatGPT for Definitions and Sample Sentences

ChatGPT for Language Teaching and Learning http://lours/sentences/chatGPT for Language Teaching and Learning http://lours/sentences/constroor/sidentics/sentences/chatGPT for Language Teaching and Learning http://lours/sentences/constroor/sidentics/sentences/chatGPT for Language Teaching and Learning http://lours/sentences/chatGPT for Language Teaching and Learning 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

39 40

April 3, 2023

Activity #5. Ask ChatGPT to Generate Comprehension and Open-Ended Questions
ChatGPT for Language Teaching and Learning https://journals-asegub-com.proy/ub.bits.lu.edu/dol/epub/10.1177/00336882231162869

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

Comprehension questions:

1. Why was Affice feeling tired in the beginning of the story?

2. What did Alic consider doing to pass the time?

4. What did Alic consider doing to pass the time?

4. What did Alic consider doing to pass the time?

5. Why did Alice follow the White Rabbit?

Expansion questions:

1. Describs 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?

April 3, 2023

Activity #6. Ask ChatGPT to Adjust Language Complexity in the Dialogue

ChatGPT for Language Teaching and Learning https://lournale-sageoub-com.prox/uk.uits.lu.edu/dol/epub/10.1177/00336892231162868

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

For beginner learners:

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

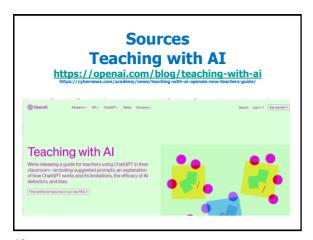
Jane: Yeah; I noticed that too. I don't know why it went up.

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

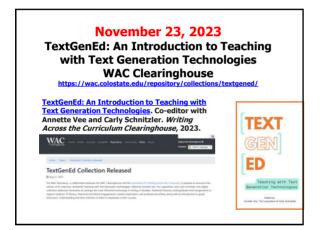
Jane: That's annoying. It's already hard to pay all our bills, and now we have to pay more for electricity.

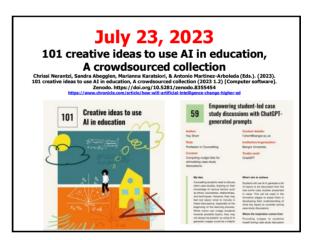
Army: I know. And with the hot weather coming soon, we'll probably use the air conditioning more, which will probably make the bill even higher.

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August 15, 2023 1. Tone/Climate: A. AI Generated Ice Breakers 25 applications in teaching and assessment Seb Dianati & Suman Laudari, Charles Darwin University 1. Tone/Climate: A. Develop Ice-**Breaker or Team Building Exercises.** A. 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. B. 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.

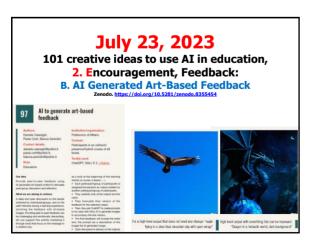
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July 23, 2023 101 creative ideas to use AI in education, 2. Encouragement, Feedback: A. Generating Feedback Poetry Chrissi Nerantzi, Sandra Abeglen, Marianna Karatsiori, & Antonio Martinez-Arboleda (Eds.). (2023).
101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software].

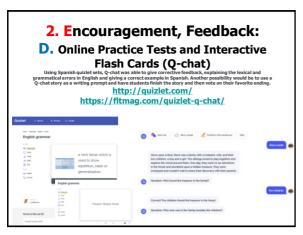
Zenodo. https://doi.org/10.5281/zenodo.38355454
(University of Leeds, Univ. of Calgary, and Univ. of Macedonia) Generating feedback poetry

51 52



September 8, 2023 2. Encouragement, Feedback: C. Exam Preparation 1. 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. 2. By providing the specific areas of study, ChatGPT can help familiarize you with your chosen topic. 3. ChatGPT can explain concepts, summarize key points, generate practical questions, and help you review quizzes and assessments.

53 54



August 31, 2023

2. Encouragement, Feedback: **E.** Translation Assistance to Improve **Writing and Conversation Skills**

https://openai.com/blog/teaching-with-ai

Dr. Anthony Kaziboni, the Head of Research at the University of Johannesburg, teaches students who mostly don't speak English outside of the classroom. Kaziboni believes that command of English is a tremendous advantage in the academic world, and that misunderstandings of even small details of English grammar can hold back students from recognition and opportunity. He encourages his students to use ChatGPT for translation assistance, to improve their English writing, and to practice conversation.



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July 23, 2023

101 creative ideas to use AI in education 3. Curiosity, Intrigue, Unknowns:

A. Chat with Anyone in Past
ndra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023).
use Al In education, A crowdsourced collection (2023 1.2) [Computer software].
Zenodo. https://doi.org/10.5281/zenodo.8358454

Chat with anyone from the past

56

July 23, 2023

3. Curiosity, Intrigue, Unknowns:

B. Gen AI and Debate Partner

101 creative ideas to use AI in education,

A crowdsourced collection
Abegglen, Marianna Karatsiori, & Antonio Martinez-Arboleda (Eds.). (2023).
4 Ii n education, A crowdsourced collection (2023 1.2) [Computer software]
Zenodo. https://doi.org/10.5281/zenodo.3355454



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August 14, 2023

30 ChatGPT Prompts For Language Learners Natalia Álvarez-Morillo, Carnegie Learning

- 4. Variety, Novelty, Fun, Fantasy:
- A. ChatGPT as Conversation Partner...
- Pretend you are a first year university student from [target country]. I will ask you a series of questions in [target language], and I'd like you to respond as if you were human.
- Let's pretend you are a tour company in [target country] called [name of company]. I will pretend to be a tourist. I will ask you a series of questions in [target language], and I'd like you to respond as if you were

August 14, 2023

30 ChatGPT Prompts For Language Learners Natalia Álvarez-Morillo, Carnegie Learning

- 4. Variety, Novelty, Fun, Fantasy:
- B. AI Chatbots as language teaching assistants

pt-prompts-language-learning/

- 1. How do I use the [verb tense] in [target language]?
- 2. I'm struggling with [grammar topic]. Can you provide some guidance?
- 3. How do I form questions in [target language]?
- 4. I need help with the correct word order in [target language1.
- 5. Could you provide some examples of [grammar rule] in sentences?





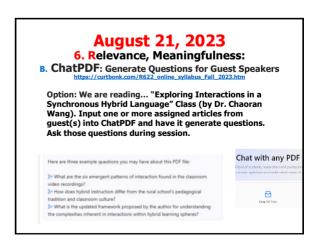


August 21, 2023
5. Autonomy, Choice:
A. Brave People Option:
Book Review

Brave People Option: Put a PDF of the chosen book or books into ChatPDF, ChatGPT, or other generative AI tool or platform and have it do a critique or a book review on it. Next, write a reflection paper, review, or critique of what generative AI produced. A mini-glossary of personal definitions for 20-25 key terms and concepts found in this book might be included in an appendix at the end of the review.

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December 3, 2023

ChatGPT for Teachers: AI in the Classroom: Harnessing the Power of ChatGPT for Effective Teachings
Pacifico Zanzara (K-12 or higher ed)

7. Interactive, Collaborative: A. Analytical Writing Prompts

Have students use ChatGPT or any other generative AI tool to engage in analytical writing and critical thinking. Use Gen AI to help interpret information, develop arguments, provide supporting evidence and justify their reasoning, explore the credibility of information sources, etc.



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October 5, 2023

7. Interactive, Collaborative:

A. Book Summary Comparison

Kevin McCullen, an associate professor of computer scie New York at Plattsburgh Machines of Loving Grace: The Quest for Common Gr

Robots, by John Markoff

- A freshman seminar about AI and robotics. Students work in groups to outline and summarize the first three chapters. Then he showed them what ChatGPT had produced in an outline.
- "Their version and ChatGPT's version seemed to be from two different books," McCullen wrote. "ChatGPT's version was essentially a 'laundry list' of events. Their version was narratives of what they found interesting. The students had focused on what the story was telling them, while ChatGPT focused on who did what in what year." The chatbot also introduced false information, such as wrong chapter names. Found it "soulless."





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July 12, 2023

7. Interactive, Collaborative: D. Text Revision

Daniel Stanford's Substack

Text Revision: For activities where students revise or critique AI-generated text, consider how students will annotate their work. For example, your instructions might include one or more of the following guidelines:

- Highlight text in yellow if at least 50% of the sentence was AI-generated without major revisions on your part.
- Use track changes when revising AI-generated text so that the AI text is crossed out and your revised version is shown in a different color.
- Identify at least one place where the AI-generated text is problematic. Highlight this text and use the comment feature to briefly explain why it's problematic and how you would change the text to fix the issue.

July 12, 2023

7. Interactive, Collaborative: E. Text Revision

Daniel Stanford's Substack

Example Activity: Summarize a text.

 Example AI prompt: Summarize the most important points of the following article in five to 10 bullet points. Limit the summary to a maximum of 200 words total. [Paste article to be summarized here.]

Example Activity: Expand on an outline.

· Example AI prompt: Take the following outline and expand on each point with one to two paragraphs of text. [Paste outline here.]

71 72

August 31, 2023

7. Interactive, Collaborative:

F. Role Playing Challenging Conversations https://openai.com/blog/teaching-with-ai

Dr. Helen Crompton, Professor of Instructional Technology at Old Dominion University, encourages her education graduate students to use ChatGPT as a stand-in for a particular persona—like a debate partner who will point out weaknesses in their arguments, a recruiter who's interviewing them for a job, or a new boss who might deliver feedback in a specific way.

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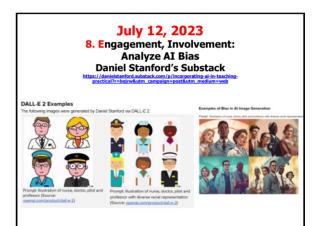
July 12, 2023

8. Engagement, Involvement:
A. Analyze AI Bias
Daniel Stanford's Substack

practical?r=bejrw&utm_campaign=post&utm_medium=web

Example Activity: Analyze examples of bias in AI output.

- Example prompt: Write a scene in a movie script where people in specific professions interact (e.g., a doctor/nurse, pilot and flight attendant).
- Student reflection question: What gender did AI assign to each role? How did this reinforce or contradict common stereotypes?
- Additional example assignment: Analyze how AI handles racial or gender representation depending on prompt wording. See examples at bit.ly/bias-in-ai-images.



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February 19, 2023

8. Engagement, Involvement:

B. Generate images and have students draft, illustrate or narrate stories

DALL'E: An "Intelligent" Illustrator for your Language Classroom

- Ask DALL-E to generate culturally-specific images and then have students research and explain why the image does or does not fit the reality in the context of the target culture.
- Ask DALL-E to generate images based on idioms or proverbs as part of a lesson on them.
- Have students give prompts to DALL-E and then revise the prompts, analyzing why one prompt may have worked better than another or given a different result.

April 4, 2024

Teaching with AI: A Practical Guide to a New Era of Human Learning (2024) 8. Engagement, Involvement: c. Blogging and Journaling

Jose Antonio Bowen and C. Edward Watson https://www.press.jhu.edu/books/title/53869/teaching-ai

Record weekly course reflections in a blog or a journal. Then have students get feedback from both a peer and ChatGPT. Have students write one or more reflections on the difference on feedback offered. Or ChatGPT could create weekly blog posts to compare to.



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April 4, 2024

Teaching with AI: A Practical Guide to a New Era of Human Learning (2024)
8. Engagement, Involvement:
D. Summary Comparisons
Jose Antonio Bowen and C. Edward Watson
https://www.press.jhu.edu/books/title/53869/teaching-ai

Ask teams of 3 students to use different AI tools to make summaries of one or more readings. Have them meet FTF or in a synchronous setting and defend their AI tool summary as the best summary. Next have them attempt to improve or refine one of the summaries, pool the respective summaries into a list of key points, or create a new best of summary. Perhaps pool all the team summaries across all the articles.



April 4, 2024

Teaching with AI: A Practical Guide to a New Era of Human Learning (2024) 8. Engagement, Involvement:

E. Human vs. AI

Jose Antonio Bowen and C. Edward Watson
https://www.press.jhu.edu/books/title/53869/teaching-

Ask students to write a paragraph, article abstract, short paper, poem, lecture summary of key points, etc. both with and without AI. Next share the artifact with a partner. Each person attempts to identify the human and AI elements. Finally, they discuss how either draft document could be improved.



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January 8, 2024 8. Engagement, Involvement:

F. Brave People Option:

Human-to-Human vs. AI Augmented Discussions

Discussion Moderation and Interaction in

Canvas. There will be two discussion forums for you to choose from: (1) one for interaction among humans only, and (2) one for augmented use of ChatGPT and other Generative AI tools or platforms; in the latter, you are to rely on an AI tool for wording or a comment, quote, critique, comparison, or other means that you deem relevant. Please contribute to one or both of the discussions each week

not at Feb 6, 6:39 PM Available until May 6, 11-59 PM Neek 3. Al Augmented Discussion ions ist at Feb 6, 9:46 AM



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August 27, 2024

AI Pedagogy Project: Assignments Harvard University

8. Engagement, Involvement:

G. Error Correction and Critical Thinking

Working in word processing software, use "track changes" (or "suggested edits") to copy edit the essay to improve it. Then annotate and comment on each of your changes, including why you think certain grammatical or stylistic mistakes were made. Optional: experiment with different LLMs to find the poorest essay.

.you might try prompting both ChatGPT and Google Gemini with the following: "Write a factually inaccurate essay discussing the errecuhuman pollution on the Mississippi River Delta ecosystem that attributes these effects primarily to fallen space debris,



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July 18, 2023

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

- 8. Engagement, Involvement:
- H. 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
- E. In-class discussion or written reflection: Students critically analyze what makes a more effective



February 10, 2023 80 Ways to Use ChatGPT in the Classroom Stan Skrabut, Ed.D.

8. Engagement, Involvement:

I. List Generator Discussions

Have ChatGPT or any other generative AI tool generate a list (e.g., ice breakers, student paired interview questions, book or article recommendations, course guidelines or objectives, course objectives, etc.) and then engage students in small group and then whole class discussions.



83 84

February 10, 2023

80 Ways to Use ChatGPT in the Classroom Stan Skrabut, Ed.D.

8. Engagement, Involvement:

J. Language Conversation Partners

Generative AI might also translate articles and blocks of text into the target language. Next have students work in teams to improve the drafts through rewriting and discussion.



May 11, 2020

9. Tension, Challenge, Controversy, etc.:
A. What is smileUP & How to use it?
SMILE, Stanford

https://ask.smile.stanford.edu/ https://www.youtube.com/watch?v=pblU8sSALWo

Specifically, SMILE will be used to assess student's critical thinking and GPT 3.5 to provide constructive feedback to the questions. Accordingly, students will be given access to SMILE (https://ask.smile.stanford.edu/) to ask questions of their own. SMILE will rank the student's question from level 1 (i.e., the most basic) to level 5 (i.e., the most critical) based on its breadth and depth and its analytical nature using the Bloom Taxonomy criteria. 50 or more questions and write a reflection report on the breadth and depth of the response of ChatGPT.



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11. Kim, P., Wang, W., & Bonk, C. J. (provisional acceptance). Generative AI as a coach to help students enhance proficiency in question formulation: Just ask SMILE. Journal of Educational Computing Research

SMILE. Journal of Educational Computing Research.
Following the launch of the generative AI Web application, Ask.SMILE, for evaluating the level of questions asked, 2,559 educators generated 25,973 question-feedback sets over a three-month period; an average of over 10 questions generated per participant.

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11. Kim, P., Wang, W., & Bonk, C. J. (provisional acceptance). Generative AI as a coach to help students enhance proficiency in question formulation: Just ask SMILE. *Journal of Educational Computing Research*.

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 Number of Observations (N)
 Value
 Percent

 Number of Observations (N)
 2.9373
 100%

 Level 1 Remembering
 7,073
 27.2%

 Questions
 4,001
 16.9%

 Level 2 Understanding
 4,401
 16.9%

 Questions
 2,574
 9.9%

 Level 3 Applying Questions
 3,832
 14.9%

 Level 4 Calculating Creating
 8,093
 31.1%

 Questions
 Mean Level of Questions
 3,056

 Sandard Deviation (SD)
 1,627



88

90

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11. Kim, P., Wang, W., & Bonk, C. J. (provisional acceptance). Generative AI as a coach to help students enhance proficiency in question formulation: Just ask SMILE. *Journal of Educational Computing Research*.

Following the launch of the generative AI Web application, Ask-MILE, for evaluating the level of questions asked, 2,559 educators generated 25,973 question-feedback sets over a three-month period; an average of over 10 questions generated per participant.

Table 3: Cross-tabulation of Average Level and First Level of User Questions

First Level	Average Question Level					
	1	2	3	4	5	Total
1	486	208	176	45	0	915
2	13	247	110	78	1	449
3	0	29	152	58	0	239
4	0	23	39	242	14	318
5	0	15	76	117	430	638
Total	499	522	553	540	445	2559



August 31, 2024

9. Tension, Challenge, Controversy, etc.: B. Research Dig

https://curtbonk.com/Instructional-Strats-R546-2024.htm

Brave People Option: Research Dig. You are

to canvass the research literature on a topic related to this class. Perhaps this will lead to a dissertation, master's theses, or research project. You must find at least 15 articles on a topic and read at least half of them. In your paper, you should describe how you found your articles and essentially describe the state of the research? What are the general findings? Where are the open issues, questions, or gaps on this topic and how might you research this area? You should turn in a 2-4 page single-spaced review.



 AI Option: Adventurous students might ask ChatGPT or ChatPDF to also generate a summary of those 15 articles and compare the two summaries as well as a set of discussion questions on each article in the review.



October 5, 2023

10. Yields Products, Goals:

A. Support for Job Applications and Resumes
Grace Heneks, a lecturer in the English department at Texas A&M University
https://www.chronicle.com/newdetter/teaching/2023-10-05

Students were asked to work with ChatGPT in
a technical professional-writing course and a writing
about literature course. In both courses, she says,
students were underwhelmed by the product. In the
technical writing course, students used ChatGPT to
write job-application materials, such as cover letters
and resumes. Most of them, she wrote, found that
the chatbot actually created work because, even
with multiple prompts, the writing did not have
much personality and was repetitive. The same held
true in her writing course when she used ChatGPT in
class and also when students reviewed a ChatGPTgenerated essay.

91 92



July 23, 2023

101 creative ideas to use AI in education,
10. Yields Products, Goals:
C. The AI Podcast Show

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsion; & Antonio Martinez-Arboleda (Eds.). (2023).
101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) (Computer software).
Zenodo. https://doi.org/10.2381/zenodo.3835454

https://www.chronicles.com/ark/siz/hom-will-artificial-intelligence-change-higher-ed

The AI Podcast

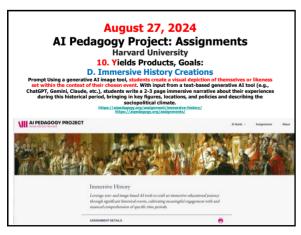
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93 94



Make Commitments:
Stop and Share in Chat Window:
Which principle(s) of TEC-VARIETY will you use?
Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products

MOTIVATION
INTERIOR INTERI

95 96



The R2D2 Model



- 1. Read (Auditory and Verbal Learners)
- 2. Reflect (Reflective Learners)
- 3. Display (Visual Learners)
- 4. Do (Tactile, Kinesthetic, Exploratory Learners)

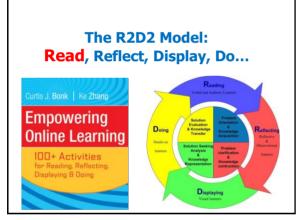








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November 23, 2023

Read 1a. 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 s 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

Read 1b. 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 <u>Hypothes.is</u>. Then each the group rewrote the essay, using what they wanted of the original in the final draft.



November 23, 2023

Read 1c. Critical Assessment and Analysis Exercise (TextGenEd)

Nathan Murray, University of Mississippi Elisa Tersigni, University of Toronto Mississauga

lu/repos This assignment asks first-year critical writing

students to evaluate the reliability, factuality, and ning of three anonyn 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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October 5, 2023

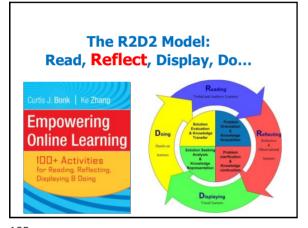
Read 1e. ChatGPT as a Summary and **Synthesis Tool**

Dan Sarofian-Butin, Professor of Education, Merrimack College etter/tea https://www.chro onicle.com/newsl https://web.hyp

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 issu require students to use ChatGPT in class and in every minor and major assignment (formative and summative; low and high stakes)," he wrote.



103 104



July 18, 2023

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

Reflect 2a. Revise for new audience & reflect - graded assignment. Turn a two-page proposal into a one-page proposal for a new audience. Two Heads Again.

- 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).

 Use GAI to help shorten the original proposal.
- Critically analyze how GAI shortened the work given the new audience.
- Using GAI edits and their critical thinking, shorten original proposal to one page.

 Utilize (e.g., headings, sub-headings, bulleted lists or tables) to make the writing easy for the new audience to read quickly.
- Students write a reflection on how and why they modified their original proper for the new audience, including how they were able to improve on what GAI provided.

105 106

July 18, 2023

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

Reflect 2b. 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.

July 18, 2023 Center for Teaching Innovation, Cornell University **CU Committee Report: Generative Artificial** Intelligence for Education and Pedagogy

Reflect 2c. Editing Skills – pre-work for class discussion, in-class activity. (i.e., Two Heads are Better than One).

- 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 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 what GAI provided.

107 108

November 23, 2023

Reflect 2d. AI for Editing (TextGenEd)

Nupoor Ranade, George Mason University https://wac.colostate.edu/repository/collections/textgened/professional-writing/ai-for-editing/

This assignment asks students to generate a complex essay using an AI text generation tool, edit the essay using principles taught in class to improve the readability score of the generated content. Students are asked to share the final output along with visuals that demonstrate the comparison between the various versions of the generated content. This assign can be adapted for all course levels, especially for first-year writing and professional and technical writing classrooms.



How can AI make credible contributions to the writing and editing process?

November 23, 2023

Reflect 2e. Using LLMs as Peer Reviewers for Revising Essays (TextGenEd)

Antonio Byrd, Univ. of Missouri at KC

https://wac.colostate.edu/repository/collections/textgened/rhetorical-engagements/using-llms-as-peer-reviewers-for-revising-essays/

In this assignment, un language models (LLMs) to assist in revising their essay drafts by asking LLMs to respond learn prompt engineering and develop rhetorical judgments on the effectiveness of LLMs' language analysis to heighten their revision processes. This assignment can be adapted to most disciplines and course levels. (advanced expository course on literacy studies and technology)



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July 18, 2023

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

Reflect 2f. 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.
- 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?

July 18, 2023

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

Reflect 2g. Summarize arguments and produce themes.

- A. Use GAI to summarize a meeting transcript into key themes (e.g., annual meetings, transcripts, 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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Center for Teaching Innovation, Cornell University **CU Committee Report: Generative Artificial Intelligence for Education and Pedagogy**

Reflect 2h. 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
- D. In-class discussion or written reflection: Students critically analyze the usefulness of AI in the brainstorming process.

July 18, 2023

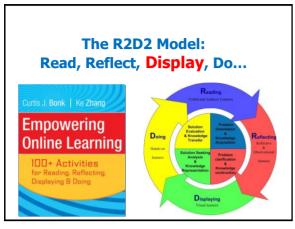
Center for Teaching Innovation, Cornell University CU Committee Report: Generative Artificial Intelligence for Education and Pedagogy

Reflect 2i. 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
- 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.

 In-class discussion or written reflection: Students critically analyze the usefulness of AI to find reliable and unbiased sources.

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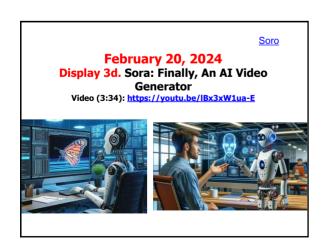








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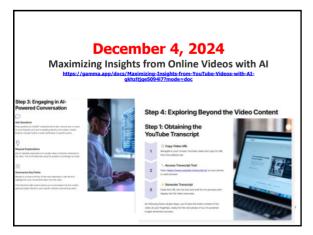


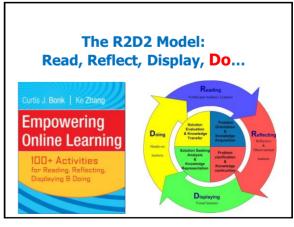




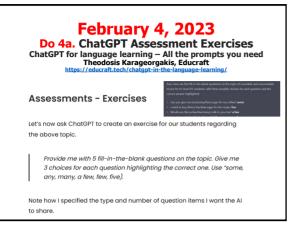
August 15, 2023
ChatGPT and generative AI: 25 applications **Display 3e.** Provide Video Summaries NOTEGPT

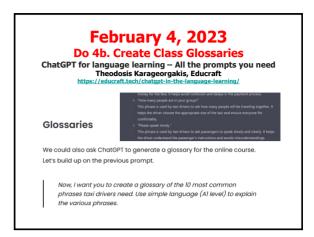
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July 23, 2023

101 creative ideas to use AI in education
Do 4c. Comic Book Content Creations
(Aras Bozkurt, Anadolu University)

Chrissi Nerantzi, Sandra Abeglen, Marianu Karatsioi, Rantonio Martiner-Arboleta (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

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Academic knowledge brought to life in comic book frames

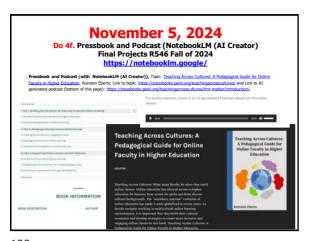
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How many ideas did you get from this session for using Generative AI tools in your teaching, training, or tutoring?

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



Poll #5. Closing questions...

How many ideas did you get from this session for using Generative AI tools in your formal and informal learning?

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



135 136

Chat Window Sharing: Three Words from this Session...? e.g., "I am happy!" and... "minions are happy!"





137

We are entering a jumping off point...









