

Using Generative AI for Lesson Planning and Material Design & Development 2023 COABE Atlanta: Session Five

Presented by: Kristin Erhard

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Al Bots are prohibited in all NCCC SO virtual meetings.





Kristin Erhard



ARTIFICIAL INTELLIGENCE AND ADULT EDUCATION:

Using Generative AI to Create Lessons and Instructional Materials

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TODAY'S AGENDA

- What is Generative Artificial Intelligence like ChatGPT, Gemini and Copilot?
- Challenges in Adult Education
- How Generative AI Can Be Used in Adult Education
- Developing Lessons and Instructional Materials with Generative Al
- Ethical Considerations
- Breakout Room Discussion & Activity: Experimentation Time with Generative Al and Consider How You Might Use Generative Al in Your Classroom
- Q&A

What is Generative Artificial Intelligence (AI)? + ChatGPT / Bard (now called Cop



- + ChatGPT / Bard (now called Gemini) and Bing (now called Copilot) are open-access Artificial Intelligence platforms
- + AI was made by teaching a computer to talk like humans by showing it lots of text from the internet.
- + Generative AI works by guessing what words come next in a conversation, using what it learned from all that text (called a "large language prediction model").
- + This helps generative Al give answers and have chats that sound like a person talking

Challenges in Adult Education

- Diverse learner backgrounds, interests and motivations
- Varying skills levels amongst learners and challenges of effective differentiation for educators
- Diverse learning styles and needs (e.g., learning differences and language barriers)
- Lack of support, time and resources for learners and educators

How Can Generative Al Be Used in Adult Education?

- Creating contextualized and personalized lesson plans and instructional materials in a matter of minutes
- ☐ Teaching and Homework Support
- ☐ Language Learning Practice
- ☐ Research and Information Retrieval
- ☐ Writing and Editing Assistance

- ☐ Accessibility Support
- ☐ Virtual Discussion Partner
- And anything else you can dream of!



Developing Lesson Plans and Instructional Materials With Generative Al



The Top 3 Generative Al Chatbots: ChatGPT, Copilot and Gemini

ChatGPT

https://chat.openai.com/

Gemini (previously called Bard)

https://gemini.google.com

Copilot (formerly Bing Chat)

https://copilot.microsoft.com/

Comparing ChatGPT, Gemini and Copilot for creating lesson plans and instructional materials

Feature	ChatGPT	Gemini	Copilot
Generative capabilities	Generates text and code, no images	Generates text, code and images	Generates text, code and images
Access to current events / up-to-date information?	Limited to events before January 2022 for free version	Yes	Yes
Accuracy	Use with care	Use with care	Use with care

How to Use ChatGPT to create lessons plans, resources and activities

Step 1: Create a free ChatGPT account here https://chat.openai.com/

Step 2: Enter commands / instructions in ChatGPT to create lesson plans and content (worksheets, readings, information gap and jigsaw activities, dialogues, skits, etc.) for your classes.

TIPS:

- > Be as specific as possible about the who / what of your request.
- Ask ChatGPT / AI to refine its output with further instructions. Provide an example of what you are seeking.
- ➤ Don't put too many orders in one request. Instead, make a request with one or two orders and after it generates the content, ask the AI to refine and expand and create more. From there, you do the editing onto a Google Doc or Word Doc.
- > Include NC ABE / ASE Content Standards to generate tailored lessons and content.
- > Contextualize and personalize the content / lessons to the interests of your students and the themes of your lessons.

Let's try out Generative Al!

ChatGPT

https://chat.openai.com/

Gemini (previously called Bard)

https://gemini.google.com

Copilot (formerly Bing Chat)

https://copilot.microsoft.com/

Bing Al- powered Search Engine

https://www.bing.com/

North Carolina College and Career Readiness Standards

Adult Basic Education

Adult Secondary Education

Input example:

Create a 2-hour lesson plan with a worksheet and 10 word problems about car racing and include multisensory activities for adults preparing for the GED exam and include MA 4.3.4 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context to the data.

ChatGPT output:

https://chat.openai.com/share/e22df1f 1-21b5-4415-b0a1-55650e49e62f



Create a 2-hour lesson plan with a worksheet and 10 word problems about car racing and include multisensory activities for adults preparing for the GED exam and include MA 4.3.4 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context to the data



Lesson Plan: Understanding Linear Models in Car Racing







Objective:

By the end of this 2-hour lesson, adult learners will be able to interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of car racing data. Additionally, they will practice these skills through multisensory activities and word problems relevant to real-life scenarios.

Materials:

- Whiteboard and markers
- 2. Projector and screen
- Printed worksheets (one per learner):
- Calculator.
- Toy cars or images of cars
- Racing track or a drawn track on a large piece of paper
- Stopwatch
- Graph paper
- 9. Chart illustrating linear models

Lesson Plan:

Introduction (15 minutes):

What Can I Create with Al? (ChatGPT / Gemini / Copilot)

Customized and contextualized exercises and word problems

Worksheets / practice problems

Skits / Dialogues with target vocab

Math / Grammar Explanations with examples

Adjust the reading levels of texts and identify and define key vocabulary (differentiation)

Cloze Exercises

Context clues exercises

Project Descriptions and Guidelines

Sample Essays and writing

Information Gaps

Jigsaw Readings

And really any text-based content you can think of!



Dialogue with

phrasal

verbs

write a dialogue using the following phrasal verbs: ask out, bring up, call back, call off, cheer up, cut out, drop by, figure out, get along with, kick out of, look after, pick out, put away, put up with, show up, run into, take after, think over



John: Hey Sarah, I've been meaning to ask you out. Would you like to go to the movies with me this Saturday?





Sarah: Oh, John, I'm flattered! I'd love to go out with you. But before we make plans, there's something I need to bring up. I have a pet cat that I need to look after. Is that something you can handle?

John: Absolutely! I'm a big animal lover, so I'll have no problem taking care of your cat while you're away. Now that we have that sorted out, let's plan for the movies. I'll pick you up at 7 p.m. on Saturday.

Sarah: Sounds good! But, John, I just remembered that I promised my friend I would drop by her house on Saturday evening. Do you mind if we call off the movie date and reschedule for another day?

John: No problem at all, Sarah. Things happen, and it's important to be flexible. We can definitely call off the movie and figu G Regenerate response oth of us.

Send a message.





Give me some examples of using shall in a sentence and explain why it is used for each example

Grammar Explanation of "Shall" with examples and practice exercises

https://chat.openai.co m/share/437b91e0-2daf-4c34-98aecef562a23653



- "Shall we go for a walk in the park?" In this example, "shall" is used to make a suggestion
 or propose an activity. It is a polite way to ask if the listener would like to join the speaker
 for a walk.
- "I shall do my best to finish the project on time." Here, "shall" is used to express a future
 intention or determination. The speaker is indicating their commitment to completing the
 project within the given timeframe.
- "Shall I open the window for some fresh air?" In this case, "shall" is used to offer
 assistance or ask for permission. The speaker is asking if they have the listener's consent
 to open the window, potentially to improve the air quality.
- 4. "We shall not tolerate any form of discrimination in this company." "Shall" is used here to express a strong policy or rule. The sentence communicates a firm stance against discrimination and emphasizes the company's commitment to maintaining an inclusive environment.
- "Shall we dance?" This is a classic example of "shall" being used to make a suggestion or
 extend an invitation. The speaker is proposing dancing as an activity, often in a social
 context such as at a party or a formal event.

In general, "shall" is used to indicat

S Regenerate response

gestions, offer assistance, seek

>

Send a message.

Jigsaw Reading **Explanation and** Instructions

https://chat.openai.com /share/bfaf778d-8bbb-4758-848a-02abd1565902



explain how to instruct a class of 15 high intermediate english language learners how to do a jigsaw reading



Sure, here's how you can instruct a class of 15 high intermediate English language learners how to do a jigsaw reading:







- 1. Introduce the concept of jigsaw reading: Begin by explaining what a jigsaw reading activity is and why it's useful. Tell the students that they will work in groups and each group will be responsible for reading a different text and then sharing their findings with the other groups.
- 2. Assign texts: Choose 3 or 4 texts on the same topic and assign each text to a different group. Make sure that the texts are of a suitable difficulty level for high intermediate English language learners.
- 3. Provide instructions: Give each group a set of instructions for their reading task. These should include specific questions or tasks that they need to complete while reading the text, such as identifying key vocabulary, summarizing the main points, or finding examples of a particular grammatical structure.
- 4. Allocate time: Set a time limit for the reading task, depending on the length and complexity of the texts. Encourage students to work efficiently and stay focused on their assigned task.
- 5. Regroup: After the reading task

Regenerate response

students so that each new

Send a message.

Cloze exercise with target vocabulary



make a cloze exercise using decisive, emotional, reason (noun), priority, compromise, regretful and anxious



Certainly! Here's a cloze exercise using the provided words:







	Cloze	Exerci	ise W	orks	heet:
--	-------	--------	-------	------	-------

Making a _____ is a crucial step in any decision-making process. Some people tend to be more _____ and let their emotions guide them, while others rely on their powers of _____. It's important to set clear _____ in your life to avoid feeling overwhelmed. However, sometimes, you may need to _____ on your priorities when unexpected situations arise. In the end, if you rush into a decision without considering all options, you might end up feeling ______ . It's natural to be ______ before making important choices, but remember that a well-thought-out decision can alleviate anxiety and minimize

Answer Key:

- 1. decision
- 2. emotional
- 3. reason (noun)
- 4. priorities
- 5. compromise

S Regenerate

Let's do it together!

Your task: Type in a suggestion of a ChatGPT prompt in the Zoom chat. I will test some of the prompts on our shared screen to see what ChatGPT generates and tailor the wording to maximize results.

Examples:

- Create 5 word problems about ratio and percentage related to soccer and the World Cup for an adult secondary education learner preparing for the GED exam with a 10th grade math level.
- Explain the difference between make and do and create a worksheet with 10 practice exercises for high-intermediate English language learners.

Ethical Considerations with AI in the Classroom

1.Bias and Fairness

4. Guarding Against Plagiarism and Improper Use

2. Transparency and Accountability

5. Teaching Ethical AI Use

3. Digital Literacy

6. Equity, Inclusivity, Accessibility and Access

Thank you for your time and attention!

I sincerely hope this revolutionizes your teaching and classroom.

If you have any questions, please feel free to contact me at kristineerhard@abtech.edu



Questions?

Feel free to ask in the chat.

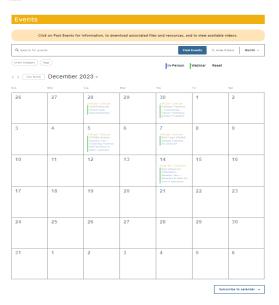
You can also contact me at: kristineerhard@abtech.edu





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NC's Roadmap for Disseminating Instructional Best Practices and Prioritizing Local Professional Development Monday 03/18 (3:50 - 5:00 in CANAL E)

Penelope Radcliffe, Beaufort County CC, Dr. Kimberly Gregory, College of the Albemarle, Devonne Jimison, Southwestern CC, and Leigh Davidson & Daniel Loges, NCCC System Office

Developmental Education in Adult Education: Transitioning Adult Learners into Curriculum Courses Tuesday, 03/19 (8:00 - 9:10 in RYMAN BALLROOM BE)

Susan Honeycutt & Londa Pickett, Davidson-Davie CC, and Arbony Cooper, NCCC System Office

Federal-State-Local: NC's Journey to State-Wide Implementation of the Standards-In-Action Virtual Institute

Tuesday, 03/19 (2:00 - 3:10 in CANAL E)

Carolyn Briggs-Gaul, Durham Literacy Center, Kevin Johnson, Lenoir CC, Gina Coffey, Mayland CC & Caldwell CC & TI, and Leigh Davidson & Daniel Loges, NCCC System Office

NC Representation at COABE 2024!

If you are attending the 2024 COABE Conference in Nashville, please complete our **brief survey** so we can stay in touch.

Support your peers, your colleagues, your directors, and your friendly system office team while they share all of the incredible things NC has done and is continuing to do on a national platform!



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Who are the Advisors?

February 22nd

Career Pathways Series

Fostering a Work-Readiness Mindset

February 27th

COABE Series

Scheduling for Career Pathways Across Settings

March 14th

Career Pathways Series

Basic Skills Plus and Other Funding Mechanisms

April 18th

Career Pathways Series

CORE

SIA (Standards-in-Action)

March 25 – May 31, 2024

March 26 – June 11, 2024



Thank you for coming!

