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TECHNOLOGY

Simplifying Teaching with AI

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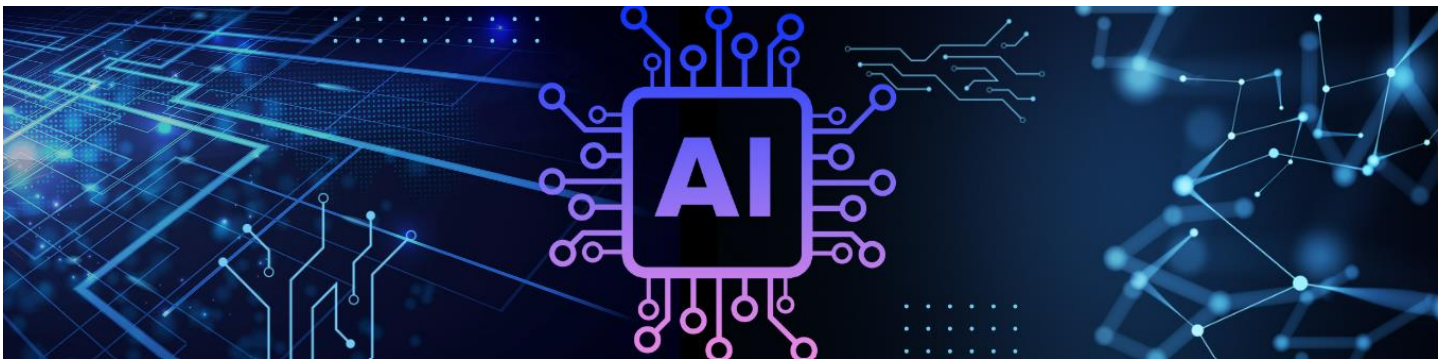
Empowering Educators: Simplifying Teaching with AI



Disseminator: Dr. Jeannette Tejeda

tejeda@dadeschools.net
Office of Instructional Technology

Work Location: 9629

For information concerning Ideas with IMPACT opportunities including Adapter and Disseminator grants, please contact:
The Education Fund
305-558-4544, Ext. 113
Email: audrey@educationfund.org
www.educationfund.org

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GOALS AND OBJECTIVES

The project, "Empowering Educators: Simplifying Teaching with AI," provides K-12 teachers with a comprehensive understanding of how to harness the capabilities of ChatGPT, an AI language model, to significantly improve their pedagogical practices. While the AI is not intended for direct classroom incorporation, it serves as a pivotal tool for enhancing educators' workflows, allowing them to concentrate more on effective instruction and student interaction. Designed with a foundational understanding of the SAMR Model, the project aims to create a nuanced understanding of technology's role in education, specifically how AI can assist without overshadowing the teacher's role.

KEY LEARNING OBJECTIVES

1. *Prompt Engineering:* Teachers will delve into the mechanics of prompt engineering to maximize the utility of ChatGPT. They'll learn to ask quality questions to generate nuanced and detailed responses, useful in everything from lesson planning to crafting parent-teacher communications.
2. *SAMR Model Integration:* This initiative goes beyond mere technology introduction by enabling educators to integrate the SAMR Model into their understanding of AI-assisted practices. The project provides the framework for teachers to use ChatGPT to enhance tasks such as lesson planning, content creation, and grading, rather than substituting basic tasks.

3. *Practical Applications:* Beyond theory, the project will share concrete, actionable insights into how ChatGPT can assist in day-to-day educational responsibilities. Real-world examples will be presented, allowing teachers to visualize how AI can aid in grading analysis, content differentiation, and more.
4. *Ethical and Responsible Usage:* Teachers will be guided through the ethical implications of AI, emphasizing the significance of student data privacy and ethical considerations. Best practices for ethical use of AI in an educational context will be discussed.
5. *Peer Sharing and Community Building:* Participants will have the opportunity to share their findings and challenges with each other, thereby creating a community of educators who can collectively troubleshoot issues and share best practices.

OVERALL IMPACT

By actively participating in this project, educators will be equipped to effectively use ChatGPT as a complementary tool in their arsenal, rather than as a replacement or direct classroom aid. The goal is to heighten educators' ability to create dynamic, responsive, and well-planned educational experiences for their students, thereby achieving academic excellence while reducing the professional strain. This is not just about technology; it's about amplifying human potential

through the ethical and effective use of AI, strategically aligned with the SAMR Model for maximum educational impact.

FLORIDA STANDARDS

(Note: Teachers can address all Florida Standards, including the standards below with the help of AI)

- ELA.K12.EE.4.1: Use appropriate collaborative techniques and active listening skills when engaging in discussions in a variety of situations.
- ELA.K12.EE.6.1: Use appropriate voice and tone when speaking or writing.
- ELA.K12.EE.1.1: Cite evidence to explain and justify reasoning.
- SC.68.CS-CS.2.1 Create, modify, and use a database (e.g., define field formats, adding new records, manipulate data) to analyze data and propose solutions for a task/problem, individually and collaboratively.
- SC.68.CS-CS.2.11 Predict outputs while showing an understanding of inputs.
- SC.68. CS-CS.2.8 Recognize that boundaries need to be taken into account for an algorithm to produce correct results.

COURSE OUTLINE AND OVERVIEW

This course is tailored for educators within the K-12 system who are interested in enhancing their teaching practices through the utilization of AI tools as supportive elements in their teaching practice. The primary AI tool covered will be ChatGPT.

OVERVIEW

The essence of "Empowering Educators: Simplifying Teaching with AI" lies in its aim to provide educators with actionable strategies and hands-on experience in utilizing ChatGPT to support their teaching endeavors. The focus is on how AI can assist teachers in streamlining pedagogical planning, enhancing communication, and elevating student engagement. This course aligns with the SAMR model by encouraging teachers to move from enhancement to transformation in their use of technology, without replacing the crucial human elements of teaching. Through various modules that cover prompt engineering, practical applications, and ethical considerations, participants will gain a holistic understanding of how to utilize ChatGPT responsibly and effectively as a tool to enrich their professional practice.

COURSE OUTLINE

Module 1: Introduction to AI and ChatGPT

- Introduction to the field of Artificial Intelligence
- Unveiling ChatGPT: Capabilities, limitations, and functionalities

Module 2: Prompt Engineering for Educators

- Introduction to prompt engineering and its role in optimizing AI interactions

- Crafting effective prompts to extract precise responses from ChatGPT

Module 3: Practical Applications of ChatGPT in Education

- Delve into examples that showcase how ChatGPT can positively influence educational practices
- Hands-on activities: Participants will simulate real-world applications such as crafting lesson plans, creating Depth of Knowledge Questions, and drafting effective messages.

Module 4: Ethical Considerations and Responsible AI Usage

- Exploring data privacy concerns
- Understanding ChatGPT's policy against harmful content

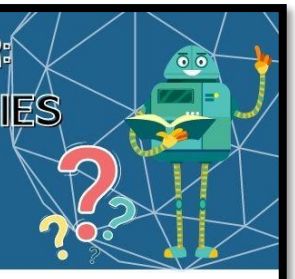
Module 5: Hands-On Practice and Application

- Final project: Participants will apply what they have learned to create a tangible output—whether that be a lesson plan, assessments, or a communications strategy—using ChatGPT.

By the end of this course, educators will not only have a deep understanding of how AI can serve as a valuable auxiliary in their professional life, but they will also be equipped with the practical skills to implement these AI tools effectively. They will have experienced first-hand the power of ChatGPT in simplifying tasks

that once took significant amounts of time, allowing them to refocus their efforts on the irreplaceable human aspects of teaching. Additionally, the insights gained from utilizing ChatGPT will enhance teachers' ability to tailor lessons, assessments, and other instructional materials to each student's unique needs. This realignment will ideally empower educators to spend more time in direct interaction with students, thereby enhancing the educational experience for all.

ASKING WITH POWER: EFFECTIVE STRATEGIES FOR PROMPTING CHATGPT



Here are 15 tips to unleash the full potential of ChatGPT:

1 Be Specific:

The clearer you state your request, the more precise ChatGPT's response will be. Include all relevant details for best results.

2 Give Context:

If your query relates to a broader topic, give necessary background information to help ChatGPT understand and generate more accurate responses.

3 Use Simple Language:

While ChatGPT can understand complex language, using simple, clear wording can help ensure that the model accurately interprets your prompt.

4 Phrase Questions Carefully:

The structure and phrasing of your question can influence the nature of the response. Open-ended questions often yield more detailed answers.

5 Ask One Question at a Time:

To ensure each query gets the attention it deserves, ask them separately. This can improve the quality of the responses you receive.

6 Rephrase If Needed:

If the response you receive isn't satisfactory, try rephrasing your question or request. A different approach can yield different results.

7 Ask for Clarification:

If you don't understand the AI's response, don't hesitate to ask for further explanation or simplification.

8 Try Different Question Types:

From factual inquiries to creative requests, don't hesitate to experiment with various types of prompts.

9 Specify the Audience in Your Prompt:

If you need content tailored for a specific audience, mention that in your request. ChatGPT can adjust its language and content to suit different audience levels.

10 Sensitivity:

Be aware that certain topics may not be suitable for discussion with an AI. These include violent, harmful, or inappropriate content.

11 Adjust Language Level:

Tailor your language level to your audience. For younger students or laypersons, you might request ChatGPT to "explain in simple terms".

12 Ask for Different Formats:

Whether it's a bulleted list, diagram, or step-by-step guide, ChatGPT can generate a range of formats to best suit your needs.

13 Exploring Multiple Perspectives:

If you're teaching a topic with diverse viewpoints, ask ChatGPT to generate arguments for each side, helping to facilitate balanced discussions.

14 Use Copy-Paste Wisely:

If you have larger texts or complex data, you can copy and paste it into ChatGPT. Just make sure to stay within the token limit.

15 Break It Up Into Sections:

The AI can process inputs up to about 4096 tokens. For extensive texts, inform ChatGPT that you'll input in sections. This helps the AI wait and combine the information more effectively.

NOTE: Check for Accuracy!

It's essential to remember that while ChatGPT is a powerful tool, it doesn't always provide 100% accurate information. It generates responses based on the patterns it has learned from the vast dataset it was trained on, and it doesn't have the ability to access real-time or updated information. Therefore, always cross-verify important information from other trusted sources, especially when using it for academic or professional purposes.

With this practice, you'll be able to make the most out of AI while also ensuring the information's reliability and accuracy.

Created by Dr. Jeannette Tejeda, with assistance from ChatGPT

OpenAI. (2023, June 27). Re: Tips for prompting ChatGPT. [Online forum post]. Retrieved from https://www.chat.openai.com

Policy Against Harmful Content: OpenAI, the creator of ChatGPT, has a strict policy against generating or promoting racist, discriminatory, or harmful content.

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USING CHATGPT TO SIMPLIFY TEACHING

Here are 10 ways, plus a bonus, ChatGPT can assist and empower teachers:

1 Lesson Planning:

Teachers can use ChatGPT to brainstorm ideas for lesson plans, ask for suggestions on presenting complex concepts, or even generate a basic structure of a lesson plan.

2 Creating Engaging Material:

Use ChatGPT to create engaging learning materials. For instance, you could request a short story to demonstrate a particular concept or generate questions for a quiz.

3 Understanding Complex Topics:

Use ChatGPT as a tool to understand complex topics in simple language. It can break down difficult subjects, helping teachers explain these concepts more effectively to their students.

4 Differentiating Instruction:

Ask ChatGPT for strategies to differentiate instruction for students with varying learning styles and abilities. It can generate ideas on modifying content, process, product, and learning environment.

5 Generating Depth of Knowledge Questions:

Ask ChatGPT to generate Bloom's Taxonomy and Webb's Depth of Knowledge-aligned questions. Enhance critical thinking by using these questions for quizzes, discussions, and deeper exploration in the classroom.

6 Teaching Writing:

ChatGPT can be used to demonstrate different writing styles, generate writing prompts, or provide feedback on student writing.

7 Creating Role-play Scenarios:

Use ChatGPT to design role-play dialogues or scenarios for students to act out. It can be a fun way to explore a variety of topics.

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8 Exploring Multiple Perspectives:

Use ChatGPT to explore various viewpoints on a topic. It can provide arguments for and against a certain issue, facilitating balanced class debates.

9 Communication with Parents:

ChatGPT can help in drafting emails or other communication with parents. You can ask it to provide a polite and professional template to communicate student progress, issues, or upcoming class events.

10 Self-learning Tool for Teachers:

Teachers can use ChatGPT to learn about new teaching strategies, educational technology, classroom management techniques, and more.

Bonus tip! Creating in the Style of Your Favorite Author:

Unleash your creativity by asking ChatGPT to generate text in the style of your favorite author. Prompt ChatGPT with a request like, "Write a short story in the style of Ernest Hemingway," and witness the AI's attempt to mimic the renowned author's distinctive prose. This feature can be a delightful way to explore different writing styles, inspire students to experiment with their own writing, and gain insights into the unique characteristics of beloved authors.

Example: In the Style of Dr. Seuss

In classrooms filled with wonder and cheer, Teachers discovered ChatGPT, bringing excitement near. With Dr. Seuss-like flair, they asked with a smile, "Oh, ChatGPT, help us teach in a style!"

In rhymes and in rhythms, ChatGPT did reply, Unleashing creativity, reaching the sky. Lessons became tales, like Seussian dreams, Engaging students, unlocking vibrant streams.

With ChatGPT's help, teachers danced and played, Writing in styles that Seuss would have made. Imagination took flight, learning was a breeze, Oh, the joy they found with ChatGPT, oh please!

In the land of education, a partnership was formed, ChatGPT and teachers, a bond transformed. Inspiring young minds, with words to explore, In the Seussian world, they taught and they soared.

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RESOURCES LIST

ChatGPT: https://chat.openai.com/

Google Bard: https://bard.google.com/

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