Bots in the Classroom: AI-Powered Tutoring at Your Fingertips

Essential Question(s)

- How can effectively use AI tools to support my learning and improve my understanding of challenging concepts?

Summary

In this activity, students will explore how AI can serve as a personalized tutor to support their learning in challenging subject areas. Students will also create their own tutoring prompts and practice using prompts developed by their peers to enhance understanding and collaboration.

Learning Goals

- Explore how to customize AI tools through prompting to support learning needs and give feedback on prompts created by other students.

Attachments

- [AI Tutoring Notecatcher - Bots in the Classroom.docx](#)
- [AI Tutoring Notecatcher - Bots in the Classroom.pdf](#)
- [Critique the Bot - Bots in the Classroom.docx](#)
- [Critique the Bot - Bots in the Classroom.pdf](#)
- [Lesson Slides - Bots in the Classroom_AI-Powered Tutoring at Your Fingertips.pptx](#)
- [Writing Effective Prompts for Generative AI - Bots in the Classroom.docx](#)
- [Writing Effective Prompts for Generative AI - Bots in the Classroom.pdf](#)

Materials

- Student devices with access to AI tools (see Preparation section)
- Lesson Slides (attached)
- AI Tutoring Notecatcher (one per student, attached)
- Writing Effective Prompts for Generative AI (one per student, attached)
- Critique the Bot (one per student, attached)

Preparation

Prior to facilitating this activity, select an AI chatbot or tool for students to use for this activity. Ensure that the tool complies with your district's AI use policies and that it can be accessed by students. Some recommended tools are:

- AI Chatbots
- MagicSchool
- SchoolAI

Before using any AI system, please be aware that most AI platforms and tools require users to be at least **13 years of age** in compliance with the **Children's Online Privacy Protection Act (COPPA)** and other applicable privacy regulations.

If a student is under the age of 13, they **must have verifiable parental or guardian consent** or be directly supervised by a teacher or school administrator when using this tool. Teachers are responsible for ensuring that students under 18 use AI systems in a safe, ethical, and age-appropriate manner and in alignment with school and district policies.

Teachers should consult their district's guidelines and technology use policies before introducing AI tools in the classroom to ensure compliance with local regulations and data privacy requirements.

By continuing to use any AI system, users confirm they meet the minimum age requirement or have obtained the appropriate consent and supervision.

10 minutes

Engage

Use **slides 2-3** to introduce the topic and learning objective.

Distribute the **Critique the Bot** handout.

Display **slide 4**. Explain the instructional strategy Critique the Bot to the students by asking them to read the prompt on the handout and then analyze and critique the AI generated feedback written below the prompt. Ask students to decide which one is more helpful to them as a student and to mark any observations, concerns about the output, or thoughts about the difference between the responses. Allow students 5 minutes to read and analyze.

Once everyone has completed the critique, move to **slide 5** to share the "Think-Pair-Share" strategy. Ask students to find an elbow partner (someone sitting right next to them) and share out their preferred response, as well as any observations, concerns, thoughts, and whether they agree or disagree with one another's feedback about the prompts. After about two minutes of sharing with a partner, ask if any of the partners would like to share with the whole group their thoughts.

25 minutes

Explore

Next, move to **slide 6** and have students get out their internet connected devices. Help them navigate to the AI program you have chosen for them to work with. Once students are all on the program, show them how to copy and paste the example prompt into the program.

Teacher's Note

This activity can be done with a prompt you have created or with a pre-made example prompt.

To create your own prompt for this activity, go to https://k20.ou.edu/5g, select "Make a copy" when prompted, and use the tool to create your own prompt. Then, copy and paste the prompt into a place where it can be shared digitally with students, such as on a Padlet or posted to an online classroom. Replace the existing directions on slide 6 with directions for how to access where you have digitally shared the prompt.

To use the pre-made example prompt, have students navigate to https://k20.ou.edu/5j and copy the prompt then paste it into the AI program.

Direct students to work through the tutoring conversation for 10 minutes, and then begin the timer.

Proceed to **slide 7** and introduce the Stand Up, Sit Down strategy. Ask students to write down their three most important understandings from the tutoring session. Instruct all of your students to stand up. Then, going one at a time, have students share just one item from their list. If a student's peer shares an item that is listed on their paper, they will mark it off. As your students are sharing out, write down their responses on a sheet of chart paper or the board to have a comprehensive list of the class's understanding. Once a student has shared, or marked off, all of their understandings on their paper, they will sit down. Continue until all students are sitting.

Teacher's Note

If your class completed Bots in the Classroom Part 1, consider having students revisit the I Notice I Wonder exercise from that activity to create their list for their Stand Up, Sit Down.

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20 minutes
Explain

Next, move to **slide 8** and pass out the **Writing Effective Prompts for Generative AI** handout. Use this reference page to introduce students to the concept of Prompt Writing for AI programs. Explain that writing effective prompts is how people get AI programs to work in specific ways, and for this activity students are learning how to prompt an AI program to help them as an academic tutor.

Give students a printed copy of the example prompt you had them use in Explore.

> **Teacher's Note**
>
> If you used the example prompt in Explore, use Prompt 1 from the Critique the Bot handout for this activity.
>
> If you created your own prompt for students to use in Explore, you will need to create a handout by copying and pasting the prompt into a document. Then, delete the prompt on slide 9. Copy and paste the prompt you created, and highlight the "Task" ,"Format", "Voice", and "Context".

Explain that when creating a prompt, there are certain pieces you need to include to make sure the program has the information it needs. Move to **slide 8** and show students the different parts that a prompt needs along with their descriptions: "Task", "Format", "Voice", and "Context". Once you have explained those pieces, move to **slide 9** where the example prompt has been highlighted and have students identify which parts correspond with "Task", "Format", "Voice", and "Context".

25 minutes

Extend

Inform students that they will now be using what they've learned to create their own AI tutoring prompt. Display **slide 10** and pass out the **AI Tutoring Notecatcher** handout. Then, ask students to pick a topic that they are struggling with or that is of interest to them.

Have students use one of the prompts presented during the Explore section and customize the prompt in a way they think will yield the best AI tutor possible.

Optional Tech Integration

Instead of customizing the prompt from Explore by hand, students can utilize a simple prompt generation tool to create their prompt. To access the prompt generation tool, navigate to https://k20.ou.edu/5g. When prompted, select "Make a copy." Then, follow the directions at the top of the spreadsheet page.

A link to the tool and directions are on **slide 11**. If you choose to have students use the tool, un-hide this slide and hide slide 10.

Students should input the prompt to test the performance of the AI tutor. As they work, they should record their experiences and reflections in the AI Tutoring Notecatcher handout.

Ask students to take screenshots of their interaction with the AI tutor to share with you for evaluation.

10 minutes

Evaluate

Display **slide 12.** Once the student is satisfied with their prompt and how the tutor interacts with the users, they should complete a 3-2-1 reflection on their own paper:

3 - Write three things you learned through this process

2 - What were two challenges you faced during this assignment?

1 - What is one thing that surprised you about AI, prompts, or its usefulness?

Facilitate a short debrief conversation to help students consider how they are feeling about using an AI tutor and what they think it could help them with in school.

Screenshots and participation in discussion can be used as forms of assessment.

Research Rationale

Based on [Large Language Models as a Homework Tutor can Improve Student Engagement and Learning Outcomes](#).

Resources

K20 Center. (n.d.). 3-2-1. Strategies. https://learn.k20center.ou.edu/strategy/117

K20 Center. (n.d.). Critique the Bot. Strategies. https://learn.k20center.ou.edu/strategy/3491

K20 Center. (n.d.). Stand up, sit down. Strategies. https://learn.k20center.ou.edu/strategy/1771

K20 Center. (n.d.). Think-pair-share. Strategies. https://learn.k20center.ou.edu/strategy/139