ceres
Connecting the Ed•tech Research Eco•System

UC Irvine

Study Protocol:

Understanding Perceptions and Use of AI in K-12 Education Using a Nationally Representative Sample – Youth Survey

University of California, Irvine

Candice Odgers (Principal Investigator)
Gillian Hayes (Principal Investigator)
Kelli Dickerson (Project Manager)
Aehong Min (Postdoctoral Scholar)
Sohyeon Park (PhD Student)

Funded by:

- National Science Foundation Award: 2334172
- Jacobs Foundation
- Google Award for Inclusion Research

For questions about the protocol, please contact Kelli Dickerson (kelli.dickerson@uci.edu)

If you want to request to use existing data, please contact Candice Odgers (codgers@uci.edu)

To cite this protocol: Odgers, C.L., Hayes, Gillian R., Dickerson, K.L., Min, A., & Park, S. (2025). Understanding Perceptions and Use of AI in K-12 Education Using a Nationally Representative Sample- Youth Survey. Retrieved from https://adaptlab.org/open-science/ai-use-and-perceptions-in-k-12-education-open-source-protocol/

Part A. Knowledge and Use of AI

Section 1. AI Knowledge

Q1. What things come to mind when you first think of artificial intelligence (AI)?

[TEXTBOX]

Q2. If you had to tell someone what artificial intelligence (AI) is, what would you say?

[TEXTBOX]

Section 2. AI Use

Q3. Have you heard of any of these tools? *Please select all that apply.*

RESPONSE OPTIONS:
1. Search engines, like Google or Bing
2. Learning apps or learning games, like Prodigy, STMath, MATHia, or Cognii
3. Apps that create images or music, like DALL-E, Adobe Firefly, or MusicLM
4. Apps that answer questions or write text, like ChatGPT, Bing Chat, or Gemini
5. Apps that listen to you and type what you say to text, like Otter AI or Dragon
6. Apps that read out loud, like Speechify, Natural Reader, or Epic
7. Apps that act as virtual friends, like Replika or Snapchat's My AI
8. Chatbots that help with mental health, like Wysa, Woebot, or Youper
9. None of the above

[SHOW IF Q3=1,2,3,4,5,6,7,8]
[GRID]

Q4. How often have you used these tools in the past month?

GRID ITEMS:
A. [SHOW IF Q3=1] Search engines, like Google or Bing
B. [SHOW IF Q3=2] Learning apps or learning games, like Prodigy, STMath, MATHia, or Cognii

C. [SHOW IF Q3=3] Apps that create images or music, like DALL-E, Adobe Firefly, or MusicLM
D. [SHOW IF Q3=4] Apps that answer questions or write text, like ChatGPT, Bing Chat, or Gemini
E. [SHOW IF Q3=5] Apps that listen to you and type what you say to text, like Otter AI or Dragon
F. [SHOW IF Q3=6] Apps that read out loud, like Speechify, Natural Reader, or Epic
G. [SHOW IF Q3=7] Apps that act as virtual friends, like Replika or Snapchat's My AI
H. [SHOW IF Q3=8] Chatbots that help with mental health, like Wysa, Woebot, or Youper

RESPONSE OPTIONS:
1. Never
2. Less than once a week
3. Once a week
4. A few times a week
5. Every day

[SHOW IF Q4A-H=2,3,4,5]
[GRID]

Q5. You said that you have used one or more of these tools. How much help did you get from adults, like parents or teachers, in learning how to use them?

GRID ITEMS:
A. [SHOW IF Q3=1] Search engines, like Google or Bing
B. [SHOW IF Q3=2] Learning apps or learning games, like Prodigy, STMath, MATHia, or Cognii
C. [SHOW IF Q3=3] Apps that create images or music, like DALL-E, Adobe Firefly, or MusicLM
D. [SHOW IF Q3=4] Apps that answer questions or write text, like ChatGPT, Bing Chat, or Gemini
E. [SHOW IF Q3=5] Apps that listen to you and type what you say to text, like Otter AI or Dragon
F. [SHOW IF Q3=6] Apps that read out loud, like Speechify, Natural Reader, or Epic
G. [SHOW IF Q3=7] Apps that act as virtual friends, like Replika or Snapchat's My AI
H. [SHOW IF Q3=8] Chatbots that help with mental health, like Wysa, Woebot, or Youper

RESPONSE OPTIONS:
1. None
2. A little
3. A lot

4

[SHOW IF Q4A-H=2,3,4,5]
[GRID; SP]

N5. How much help have you given adults, like parents or teachers, in helping them learn how to use these tools?

GRID ITEMS:
   I.   [SHOW IF Q3=1] Search engines, like Google or Bing
   J.   [SHOW IF Q3=2] Learning apps or learning games, like Prodigy, STMath, MATHia, or Cognii
   K.   [SHOW IF Q3=3] Apps that create images or music, like DALL-E, Adobe Firefly, or MusicLM
   L.   [SHOW IF Q3=4] Apps that answer questions or write text, like ChatGPT, Bing Chat, or Gemini
   M.   [SHOW IF Q3=5] Apps that listen to you and type what you say to text, like Otter AI or Dragon
   N.   [SHOW IF Q3=6] Apps that read out loud, like Speechify, Natural Reader, or Epic
   O.   [SHOW IF Q3=7] Apps that act as virtual friends, like Replika or Snapchat's My AI
   P.   [SHOW IF Q3=8] Chatbots that help with mental health, like Wysa, Woebot, or Youper

RESPONSE OPTIONS:
   4.   None
   5.   A little
   6.   A lot

Section 3. AI Awareness

Q6. Which of these tools uses artificial intelligence (AI)? If you don't know that's okay, just make your best guess. *Please select all that apply.*

RESPONSE OPTIONS:
   1.   Search engines, like Google or Bing
   2.   Learning apps or learning games, like Prodigy, STMath, MATHia, or Cognii
   3.   Apps that create images or music, like DALL-E, Adobe Firefly, or MusicLM
   4.   Apps that answer questions or write text, like ChatGPT, Bing Chat, or Gemini
   5.   Apps that listen to you and type what you say to text, like Otter AI or Dragon
   6.   Apps that read out loud, like Speechify, Natural Reader, or Epic

7. Apps that act as virtual friends, like Replika or Snapchat's My AI
8. Chatbots that help with mental health, like Wysa, Woebot, or Youper

---

Q7. On a normal <u>school day</u>, how many hours do you spend online or on your phone doing work for school, including homework?

RESPONSE OPTIONS:
1. None
2. Less than 1 hour
3. 1-2 hours
4. 3-5 hours
5. 6-8 hours
6. 9 or more hours

Q8. On a normal <u>school day</u>, how many hours do you spend online or on your phone for entertainment, *not* counting time spent interacting with friends or family online or on your phone? Entertainment includes things like using the internet for fun, browsing social media, watching shows or videos, or playing games alone.

RESPONSE OPTIONS:
1. None
2. Less than 1 hour
3. 1-2 hours
4. 3-5 hours
5. 6-8 hours
6. 9 or more hours

Q9. On a normal <u>school day</u>, how many hours do you spend online or on your phone interacting with friends or family?

RESPONSE OPTIONS:
1. None
2. Less than 1 hour
3. 1-2 hours
4. 3-5 hours
5. 6-8 hours
6. 9 or more hours

Q10.Which of the following search engines do you use? *Please select all that apply.*

RESPONSE OPTIONS:
1. Bing
2. Google
3. Other (please specify): [TEXTBOX]
4. None of the above [SP]

Part B. Perceptions and Behavior

Section 1. Perceptions of AI Risks & Opportunities

[GRID 4,4,4; SP]

Q11. The following questions are about Generative AI. Generative AI is a type of smart computer that creates new things, like art, music, or writing, without help from humans by learning from lots of examples. Some examples of generative AI that you may have heard of are ChatGPT, Bing chat, and DALL-E . In these next questions, we will ask how much you agree or disagree with statements about generative AI technologies like ChatGPT, Bing Chat, and DALL-E.

Generative AI will…

GRID ITEMS:
A. Improve how I learn at school
B. Improve my health
C. Stop me from being able to solve problems on my own
D. Cause problems with my teachers or parents
E. Stop me from interacting with friends
F. Help me improve skills outside of school
G. Make it easier to cheat at school
H. Help me learn things that I'll need to know in my future career
I. Help me ask questions that I don't feel comfortable asking adults
J. Spread false or wrong information
K. Learn things about me that may be private
L. Help me when I'm feeling lonely

RESPONSE OPTIONS:

1. No
2. Maybe
3. Yes

Section 2. Modified Pew Internet and American Life Questions

Q12. Remember: Generative AI is a type of smart computer that creates new things, like art, music, or writing, without help from humans by learning from lots of examples. Some examples of generative AI that you may have heard of are ChatGPT, Bing Chat, and DALL-E.

Have you ever used generative AI?

RESPONSE OPTIONS:
1. No
2. Maybe
3. Yes

[SHOW IF Q12 =2,3]
[GRID]

Q13. Remember: Generative AI is a type of smart computer that creates new things, like art, music, or writing, without help from humans by learning from lots of examples. Some examples of generative AI that you may have heard of are ChatGPT, Bing Chat, and DALL-E.

Have you, personally, ever had an experience with generative AI that…?

GRID ITEMS:
A. Caused a problem with your parents
B. Caused a problem with peers
C. Got you in trouble at school
D. Made you feel good about yourself
E. Helped you learn something new
F. Helped you be creative (like make art or music or write stories)

RESPONSE OPTIONS:
1. No
2. Maybe
3. Yes

Q14. Remember: Generative AI is a type of smart computer that creates new things, like art, music, or writing, without help from humans by learning from lots of examples. Some examples of generative AI that you may have heard of are ChatGPT, Bing Chat, and DALL-E.

How accurate do you think the information is that you get from ChatGPT and other types of generative AI on a scale of 0-100%?

[SLIDER; 0 – 100%]

Section 3. Use of ChatGPT

Q15. Have you ever used ChatGPT?

RESPONSE OPTIONS:
1. No
2. Maybe
3. Yes

Q16. Have you used ChatGPT for help with…? *Please select all that apply.*

RESPONSE OPTIONS:
1. Homework
2. College or career advice
3. Advice about friends
4. Advice about romantic relationships
5. Learning or writing computer code
6. Creative projects (like making art or music or writing stories)
7. Asking questions that you don't feel comfortable asking adults
8. When you're lonely
9. When you're bored
10. When you're just curious about ChatGPT
11. Something else (specify): [TEXTBOX]

Q17. ChatGPT is…

A. A good thing for me personally
B. A good thing for my education

RESPONSE OPTIONS:
1. No
2. Maybe
3. Yes

[SHOW IF Q15 = 2,3]

Q18. ChatGPT has helped me to…*Please select all that apply.*

RESPONSE OPTIONS:
1. Get information when I need it
2. Feel good about myself
3. Concentrate and get things done
4. Learn new things
5. Have social connections
6. Pass time
7. None of the above [SP]

Part C. Well-Being

Section 1. Well-Being

[GRID]

Q19. During the past month, how often did you feel…?

GRID ITEMS:
A. Nervous
B. Hopeless
C. Restless or fidgety
D. That everything was an effort
E. So depressed that nothing could cheer you up
F. Worthless

1. Never
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

Section 2. Self-Efficacy

[GRID]

Q20. How well…

GRID ITEMS:
A. Do you succeed in cheering yourself up when an unpleasant event has happened?
B. Can you study when there are other interesting things to do?
C. Can you prevent becoming nervous?
D. Do you succeed in finishing all your homework every day?
E. Can you control your feelings?
F. Can you pay attention during every class?
G. Can you give yourself a pep talk when you feel low?
H. Do you succeed in passing a test?

RESPONSE OPTIONS:
1. 1 – Not at all
2. 2
3. 3
4. 4
5. 5 – Very well

Part D. Demographics

You are almost done with the survey, we have just a few more questions about yourself.

GRADE. What grade are you in?

1. 5th grade
2. 6th grade
3. 7th grade
4. 8th grade
5. 9th grade
6. 10th grade
7. 11th grade
8. 12th grade
9. Ungraded
10. College
11. Other, specify: [TEXTBOX]

GENDER1. What sex were you assigned at birth, on your original birth certificate?

RESPONSE OPTIONS:
1. Male
2. Female

GENDER2. How do you describe yourself?

RESPONSE OPTIONS:
1. Male
2. Female
3. Transgender
4. Do not identify as male, female or transgender

GENDER3. Would you say you are?

[SHOW IF GENDER2= 3]

RESPONSE OPTIONS:
1. Transgender, male to female
2. Transgender, female to male
3. Transgender, gender non-conforming
4. Other (please specify): [TEXTBOX]

[GRID]

DIFF. Do you have difficulty with…?

    A. Seeing, even if wearing glasses?
    B. Hearing, even if using a hearing aid?
    C. Walking or climbing steps?
    D. Remembering or concentrating?
    E. Self-care (such as washing all over or dressing)?
    F. Communicating?

RESPONSE OPTIONS:
    1. Not at all
    2. A little
    3. A lot

FOOD. In the past 12 months, has there been a time when you and your family needed food but couldn't afford to buy it or couldn't afford to go out to get it?

RESPONSE OPTIONS:
    1. No
    2. Yes
    3. Don't know