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## Study Information form

# Generative AI in Rural Schools Survey

You are invited by Dr. Mahsan Nourani of the Northeastern University Khoury College of Computer Sciences to participate in a research survey on understanding teacher's challenges and opportunities for incorporating Generative AI in rural high schools.

To participate, you must be over 18 years of age, feel comfortable using an online interface to read and answer questions, and speak English fluently.

## What Will My Participation Involve?

If you decide to participate in this research, we will begin by collecting some basic demographic information and details about your teaching experience. Following this, you will be asked a series of questions regarding your current teaching practices and your views on the potential use of Generative AI in rural schools. We expect this study to take 15 minutes.

## Are There Any Risks To Me?

We don't anticipate any risks from participation in this study greater than normal activity.

## Are There Any Benefits To Me?

There are no direct benefits to you other than compensation.

## Will I Be Compensated For My Participation?

You are eligible to enter a raffle for a chance to win one of several \$15 Amazon gift cards. Winners will be selected from those who opt into the raffle. If you withdraw before the end of the study, you will not receive any compensation. To enter the raffle, participants must enter their email address at the end of the survey. Email addresses will be removed and dissociated from survey responses before analysis and once the raffle concludes. Due to the anonymous nature of the study, those who do not provide their email addresses will be automatically opted out of the raffle, as we have no other way to identify participants.

## Who Should I Contact If I Have Questions?

You may ask any questions about the research at any time. If you have questions about the research after your participation, you should contact the lead researchers [Dr. Mahsan Nourani](#) and [Shira Michel](#). Your participation is completely voluntary. If you begin participation and change your mind you may end your participation at any time without penalty.

**Your part in this study is anonymous to the researcher(s). However, because of the nature of web-based surveys, it is**

possible that respondents could be identified by the IP address or other electronic record associated with the response. Neither the researcher nor anyone involved with this survey will be capturing the data. Any reports or publications based on this research will use only group data and will not identify you or any individual as being affiliated with this project.

## Privacy Statement and Future Use of the Data

Your responses to this experiment will be used only by the lead researcher to help us answer questions about generative AI in rural high schools. Once collected, your information will be anonymized, and stored on a secure server. De-identified data from this study may be shared with the research community, with journals in which study results are published, and with databases and data repositories used for research. **We will remove or code any personal information that could directly identify you before the study data are shared.**

Your de-identified information could be used for future research **without additional informed consent**. If you have any questions regarding electronic privacy, please contact Northeastern University's Office of Information Security via email at [privacy@northeastern.edu](mailto:privacy@northeastern.edu).

This study has been reviewed and approved by the Northeastern University Institutional Review Board ("IRB") – an IRB is a committee that protects the rights of people who participate in research studies. **If you have any questions regarding your rights as a research participant**, please contact the Human Subject Research Protection at [IRBReview@northeastern.edu](mailto:IRBReview@northeastern.edu). You may call anonymously if you wish.

By clicking on the "accept" button below you are indicating that you are 18 years or older, and consent to participate in this study. Please print out a copy of this consent screen or download a copy of the consent form for your records.

Please select "accept" to indicate your consent and agreement with the terms above.

- ☐ accept
- ☐ I do not accept (ends survey)

## General AI

Here is what Artificial Intelligence (AI) means:

"Artificial intelligence, or AI, is technology that enables computers and machines to simulate human intelligence and problem-solving capabilities" – [from an article by IBM Research](#).

I am familiar with the following (check all that apply)

- ☐ Smart replies in emails or texts (pre-generated suggested responses, e.g. "On my way!")
- ☐ Smart maps (e.g. Google Maps and Waze Navigation)
- ☐ Speech/text/facial recognition (e.g. Amazon Alexa, Adobe Acrobat, Apple Face ID)
- ☐ Other AI technologies (please specify)
- ☐ I am familiar with the concept of AI, but I don't know any uses with this technology
- ☐ Prior to this survey, I am not at all familiar with the concept of AI

I use AI for (check all that apply):

- ☐ Personal and day-to-day tasks
- ☐ Task(s) surrounding my teaching and educating duties
- ☐ I've never used such technologies, only heard about them
- ☐ Other (please specify)

### Curr GenAI Teaching

To give you more context for the rest of the survey, here is what Generative AI (Gen AI) means:

"Generative AI refers to deep-learning [artificial intelligence algorithms] [...] that can take raw data — say, all of Wikipedia or the collected works of Rembrandt — and "learn" to generate statistically probable outputs when prompted" — [from an article by IBM Research](#).

One simple definition of Gen AI is that it is a type of AI that can create new content in response to a user's request. This content can include text, images, videos, audio, music, conversations, and stories.

I am familiar with the following systems (check all that apply):

- ☐ ChatGPT
- ☐ Gemini
- ☐ Midjourney
- ☐ DALL-E
- ☐ Stable Diffusion
- ☐ GitHub Copilot
- ☐ IBM Watson
- ☐ Other technologies (please specify)
- ☐ I am familiar with the concept of Generative AI, but I don't know any of the above or other systems that utilize this technology.
- ☐ Prior to this survey, I never heard of the term 'Generative AI' and I am not at all familiar with the concept.

I use generative AI for (check all that apply):

- ☐ Personal and day-to-day tasks
- ☐ Task(s) surrounding my teaching and educating duties
- ☐ I've never used such technologies, only heard about them
- ☐ Other (please specify)

What are your reasons for using Gen AI for personal tasks but not with your teaching tasks?

In what ways have you used Gen AI for your teaching tasks?

How do recent advancements in AI, particularly generative technologies like ChatGPT and DALL-E2/Midjourney, impact rural classrooms? What are the potential benefits and challenges they face?

Generative AI (Gen AI) has been used for the following for **teachers**. I can envision myself implementing the following in my classroom (check all that apply):

- ☐ Gen AI's role as my teaching assistant
- ☐ Gen AI's role as the teacher and I have a mentor role
- ☐ Gen AI can help me generate questions for quizzes
- ☐ Gen AI can help me generate personalize content for my syllabus/syllabi
- ☐ Gen AI can help me generate adaptable teaching materials
- ☐ Gen AI can help automate my administrative tasks
- ☐ I cannot see myself using Gen AI in my classroom in these ways

Gen AI has been used for the following for **students**. I can envision myself implementing the following in my classroom (check all that apply):

- ☐ Gen AI's role as a tutee and my students role as the tutor
- ☐ Gen AI's role as a coach
- ☐ Gen AI as a homework support system
- ☐ Gen AI as a support tool for ideation
- ☐ Gen AI can generate personalized exercise and activities for my students
- ☐ I cannot see myself using Gen AI in my classroom for my students

## GenAI TAM

Using Gen AI in my job would enable me to accomplish my teaching tasks more quickly

- ☐ Extremely likely
- ☐ Quite likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Quite unlikely
- ☐ Extremely unlikely

Using Gen AI would improve my teaching performance

- ☐ Extremely likely
- ☐ Quite likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Quite unlikely
- ☐ Extremely unlikely

Using Gen AI in my job would increase my productivity

- ☐ Extremely likely
- ☐ Quite likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Quite unlikely
- ☐ Extremely unlikely

Using Gen AI would enhance my effectiveness with teaching

- ☐ Extremely likely
- ☐ Quite likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Quite unlikely

☐ Extremely unlikely

I would find Gen AI useful with teaching

☐ Extremely likely

☐ Quite likely

☐ Slightly likely

☐ Neither likely nor unlikely

☐ Slightly unlikely

☐ Quite unlikely

☐ Extremely unlikely

Are there any additional comments pertaining to the previous set of questions that you would like to provide?  
[Optional]

## GenAI CARS

I am confident that I can learn Gen AI skills to enhance my teaching

☐ Strongly Disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

I am afraid that if I begin to use Gen AIs I will become dependent upon them and lose some of my teaching skills

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

I feel that I will be able to keep up with the advanced happening in the Gen AI field and apply it to my teaching

☐ Strongly disagree

- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

I feel apprehensive about using Gen AIs with teaching

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

It scares me to think a Gen AI could provide me or my students with misinformation

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Are there any additional comments pertaining to the previous set of questions that you would like to provide?  
[Optional]

### Traditional Teaching

What are your 3 favorite activities or topics you enjoy teaching at a rural school?

What types of tedious/mundane tasks do you perform in the classroom setting that take your focus from teaching or interacting with students?

What resources do you use to address challenges that you face while teaching? Do you use any technological and technical resources?

Based on current resources and the support in rural schools, how would you rate your ability to:

	Very Poor (1)	Poor (2)	Fair (3)	Neutral (4)	Good (5)	Very Good (6)	Excellent (7)
	1						7
Support students with special needs							
Support students who have behavior difficulties							
Support students who have trouble reading							
Support students who are scoring below average in your classroom(s)							
Support students who are bilingual or not native English speakers							

Are there any additional comments pertaining to the previous question that you would like to provide? [Optional]

**Teaching + STEM/Writing/Creativity**



What are current ways you integrate STEM (Science, Technology, Engineering and Mathematics) knowledge/education topics into your classroom(s)?

As part of your class(es), do you teach or give assignments that require writing?

- ☐ Yes
- ☐ No

What obstacles or challenges have you noticed students face when writing? What obstacles or challenges have you noticed yourself facing with those assignments?

Do you integrate STEM topics into your writing assignments?

- ☐ Yes
- ☐ No

What obstacles do you face when integrating STEM into lessons on writing? Especially, if you teach or give assignments that require creativity in writing?

How comfortable would you be with reinforcing STEM content during writing assignments?

Extremely  
uncomfortable

Moderately  
uncomfortable

Slightly  
uncomfortable

Neither  
comfortable  
nor  
uncomfortable

Slightly  
comfortable

Moderately  
comfortable

Extremely  
comfortable

(1)

(2)

(3)

(4)

(5)

(6)

(7)

1

7

Level of comfort

Please provide a brief justification for your response in the previous question.

### Additional Comments

Are there any additional thoughts and comments you would like to share about this survey and this topic, that was not already covered by the any of the earlier questions? Please feel free to add them here:

### Demographics

What is your age?

- ☐ 18-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60+

What gender do you self-identify with?

- ☐ Female
- ☐ Male
- ☐ Non-binary
- ☐ Prefer to self-identify (please describe)
- ☐ Prefer not to disclose

What is your race?

- ☐ American Indian or Alaska Native
- ☐ Asian

- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White

What is your ethnicity?

- ☐ Hispanic or Latino
- ☐ non-Hispanic/non-Latino

What is the highest education level you achieved?

- ☐ No high school diploma or GED
- ☐ High school diploma or GED
- ☐ Some college, but no degree
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional degree
- ☐ Doctorate

What state do you reside in?

- ☐ North Carolina
- ☐ Maine
- ☐ Arizona
- ☐ Other state (please specify)

How many years have you been teaching?

- ☐ 0 - 4
- ☐ 5 - 10
- ☐ 11 - 20
- ☐ 21 - 30
- ☐ 30+

How many years have you been teaching at a rural high school?

- ☐ 0 - 4
- ☐ 5 - 10
- ☐ 11 - 20
- ☐ 21 - 30

- ☐ 30+
- ☐ I never taught at a rural high school

What subject(s) have you taught in the past five years? (select all that apply)

- ☐ Art
- ☐ Computer Science
- ☐ English
- ☐ Math
- ☐ Science
- ☐ Social Studies
- ☐ Health/Physical Education
- ☐ Foreign Language
- ☐ Other (please specify)

What grade(s) have you taught in the past five years? (select all that apply)

- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade

## Closing

Would you be interested in a follow-up conversation about your views on the current state of AI in rural schools to gain a deeper understanding?

- ☐ Yes (must provide email)
- ☐ No

Please provide your email for future communication on this survey (e.g., compensation and further conversation on your responses). To ensure the anonymity of your responses, we will remove your association with your survey data prior to analysis. We are collecting this information solely for communication purposes. If you do not wish to be contacted regarding this survey again, you can simply opt out by not answering this question.