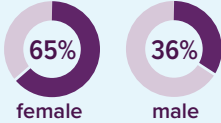


Survey Of Teachers Serving Indigenous Youth In Computer Science

The American Institutes for Research[®] (AIR[®]) conducted a survey of teachers to better understand indigenous students’ access to and interest in computer science (CS).



A total of **124** teachers responded



female male



The majority were **public school teachers** at either a middle school or a high school.



81%



A total of **24** teachers **identified as Indigenous.**



19%



Five key findings from the survey are shown below.

Teachers supported using CS to teach Indigenous language and knowledge.



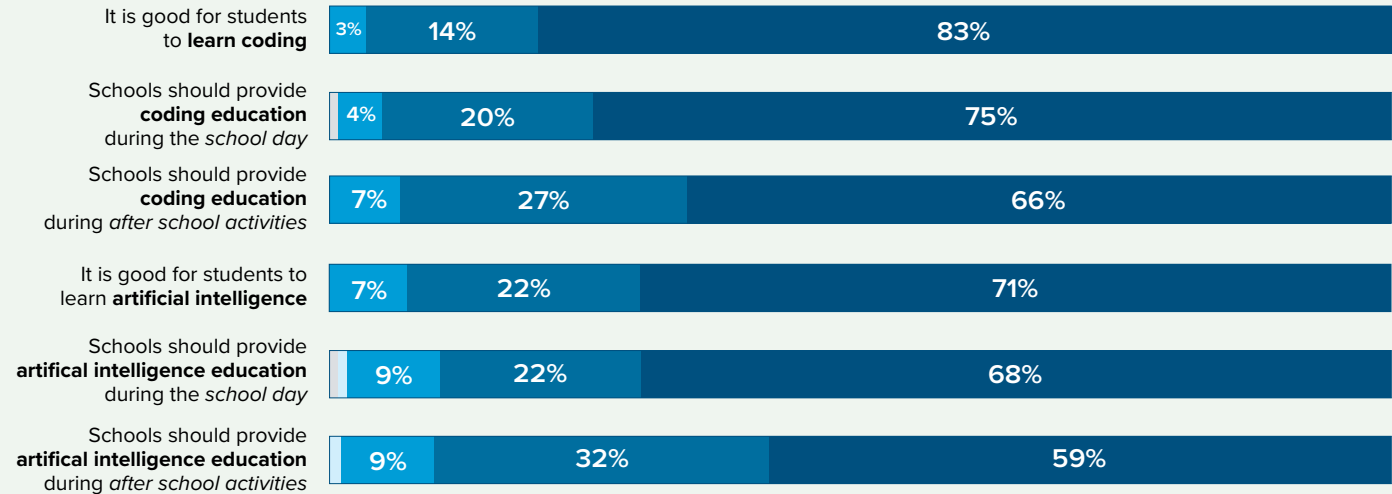
This response may reflect a broad recognition that CS can be a powerful tool for cultural preservation and revitalization.



Teachers thought coding and AI could help tribal communities, but they prioritized coding instruction.



Most respondents said “yes” when asked if coding (85%) and AI (84%) could solve problems in tribal communities. But fewer teachers thought it was good for students to learn AI compared to coding.



Disagree Somewhat disagree Neutral Somewhat agree Agree

“ Coding can be used to code drones or robots to check on geological areas in need of repair or agriculture. ”

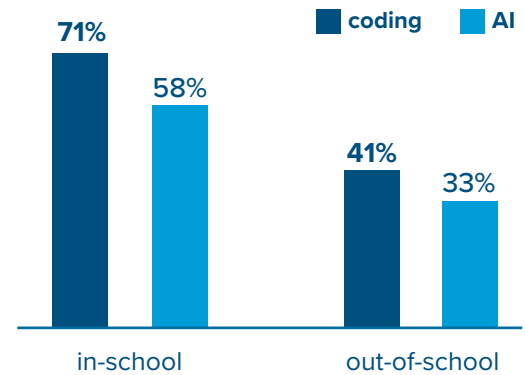
3 In-school and out-of-school access to CS is uneven.



This gap matters.

Students who rely solely on school for exposure to CS may miss out on the deeper engagement and enrichment that out-of-school programs can offer.

Notably, **coding opportunities are more prevalent than AI both in and out of school**, suggesting that coding remains the more established entry point into CS for Indigenous students.



4 65% of teachers said that at least one of their students had a CS role model.



CS role models may be a parent, teacher, friend, community member, or CS professional.

39% of the role models are Indigenous, teachers said.

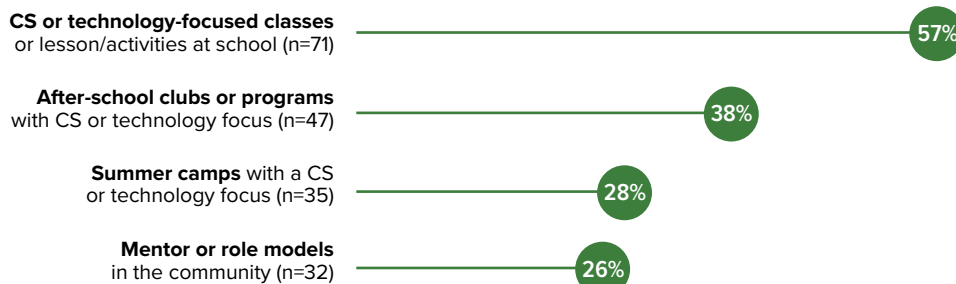
Research shows that when students see people who share their cultural background in STEM fields, they are more likely to develop a sense of belonging and pursue similar paths themselves.^{1,2}



5 Teachers believe that CS- or technology-focused classes are key drivers of Indigenous student interest.



Which of the following do you believe influences the Indigenous students that you teach to pursue computer science?



STUDY BACKGROUND

In 2022, Amazon Future Engineer sponsored a research study to gather critical data on Indigenous students' interest in and access to CS. This teacher survey is part of the larger research study led by a research study coalition consisting of AIR, Indigitize Computer Science, One Gen, Native Pathways, and Reimagine Research Group.



i For full survey results or to learn more about the larger Indigenous CS Study, visit <https://www.indigitize.org/resource-hub>.

Arellano, B. Spang, M., Stein, R., Wilson, J.P. (2025). , 2025 Study of Teachers Serving Indigenous Youth in Computer Science. American Institutes for Research.

¹ Kant, J., Burckhard, S. & Meyers, R. (2018). Engaging High School Girls in Native American Culturally Responsive STEAM Activities. *Journal of STEM Education*, 18(5). Laboratory for Innovative Technology in Engineering Education (LITEE). from <https://www.learntechlib.org/p/182466/>.

² Castagno, A. E., Chischilly, M., & Joseph, D. H. (2022). Strengthening teaching in "rural," Indigenous-serving schools: Lessons from the Diné Institute for Navajo Nation Educators. *Journal of Research in Rural Education*, 38(4). <https://doi.org/10.26209/jrre3804>

