



CARNEGIE
LEARNING

The State of AI in Education

Artificial Intelligence in Education 2024 Report

Introduction

Dear Educators,

As a leading innovator of AI in the education technology space, Carnegie Learning understands firsthand the promises and complexities this rapidly evolving technology presents. Our recent survey of approximately 800 K–12 educators explores how schools are navigating this new frontier.

Founded over 20 years ago at the intersection of cognitive science and machine learning, we have remained at the forefront of developing AI to enhance student outcomes. This survey continues our commitment to gather educator perspectives and insights to guide the ethical implementation of AI.

The results indicate a mixed landscape—while administrators eagerly embrace AI's potential to enhance learning and efficiency, teachers harbor doubts without proper training and policies in place. Overall though, cautious optimism prevails. Educators recognize AI's immense capabilities but approach them warily, stressing the ideals of human-centered education.

As AI's role amplifies, much work remains in developing ethical guidelines, privacy safeguards, and teacher training to fully tap its strengths while avoiding its risks. I invite you to read the full report for deeper insights.

**At Carnegie Learning, we believe that progress unfolds through partnerships.
We look forward to collaborating with you.**



Barry Malkin
CEO, Carnegie Learning



Jump to:

- Survey methodology
- Educator AI usage
- Student AI usage
- AI policies and training
- The future of AI

799

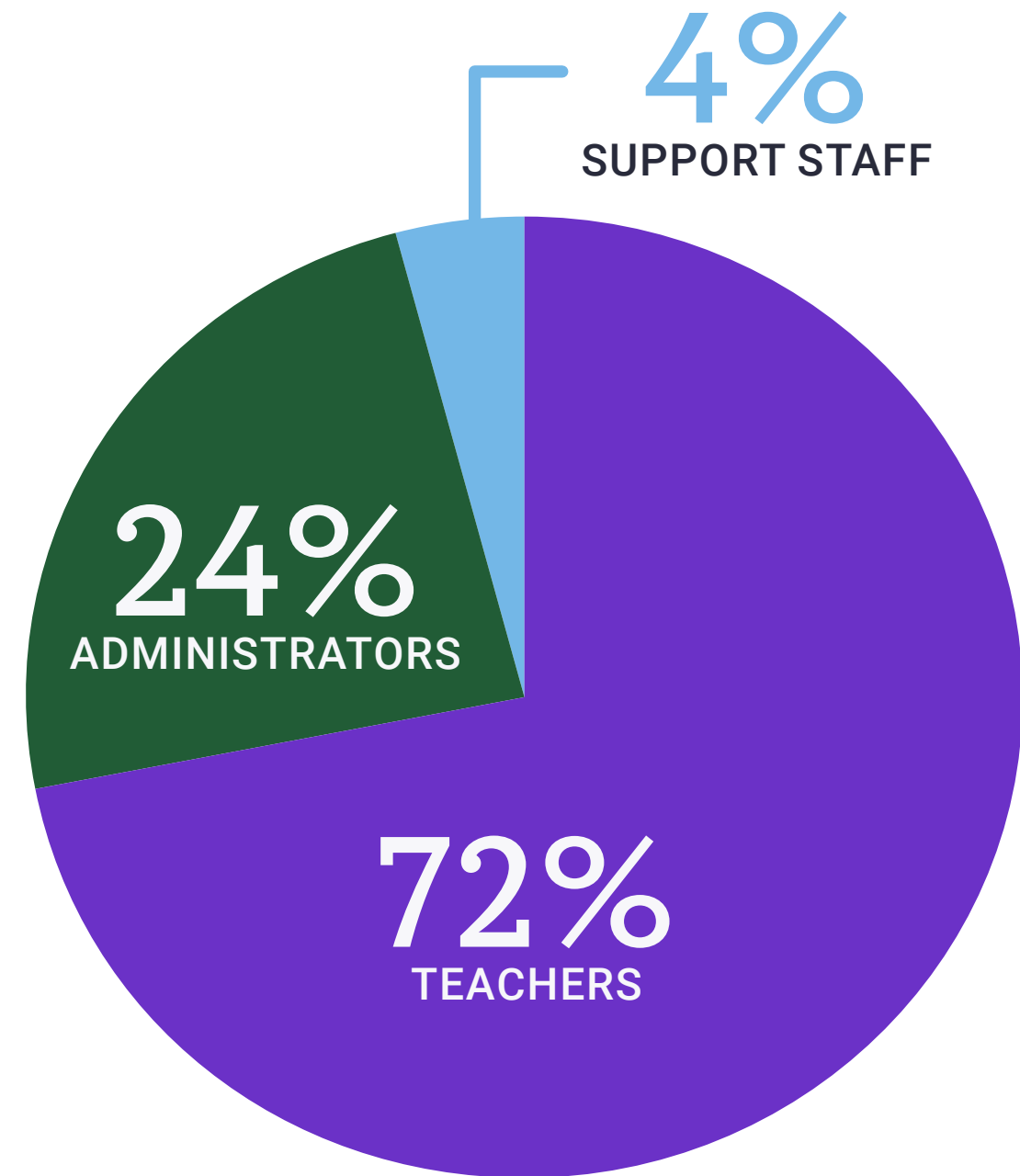
total respondents



5-minute survey
(carried out online via computer and mobile)



Data was collected Dec. 5–16, 2023

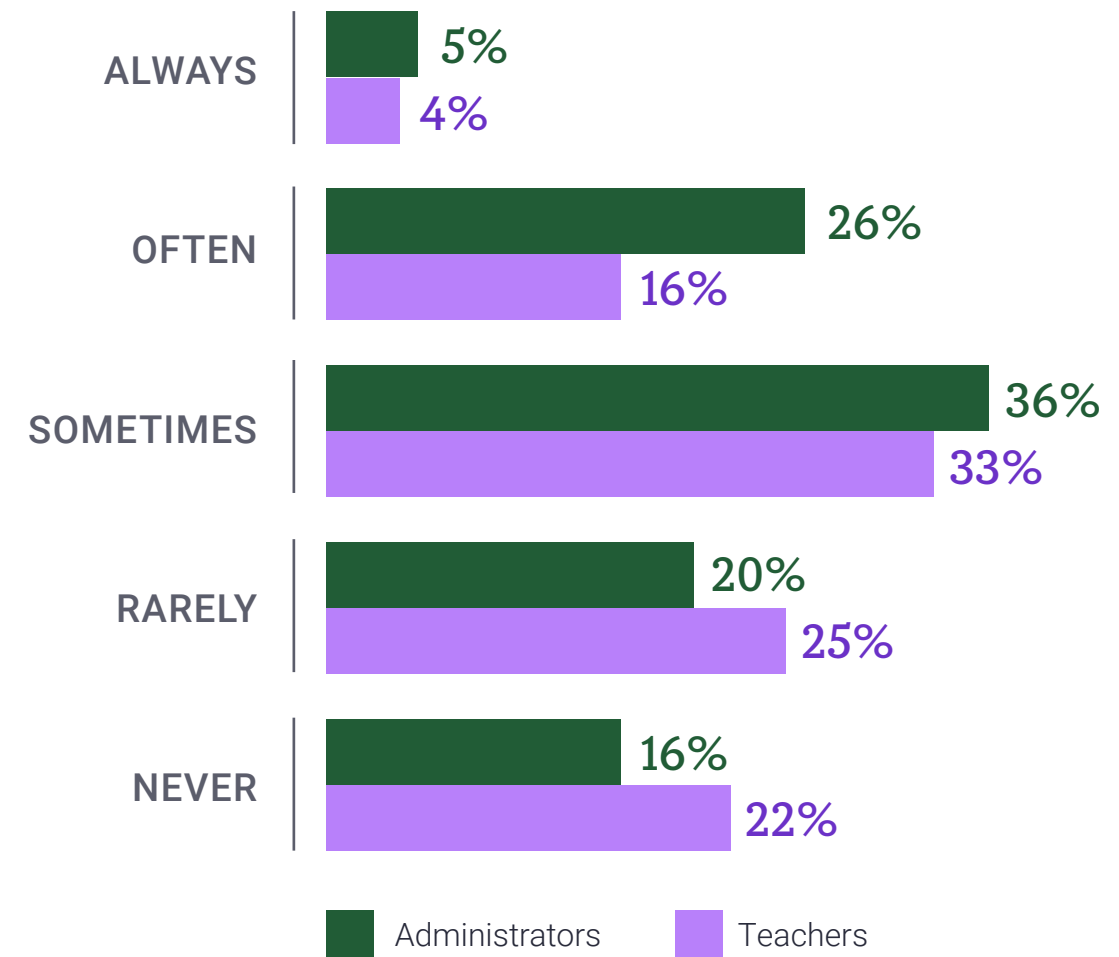


Educator use of AI is split

Most educators use AI for work sometimes...



... but school and district administrators use it more often than teachers.

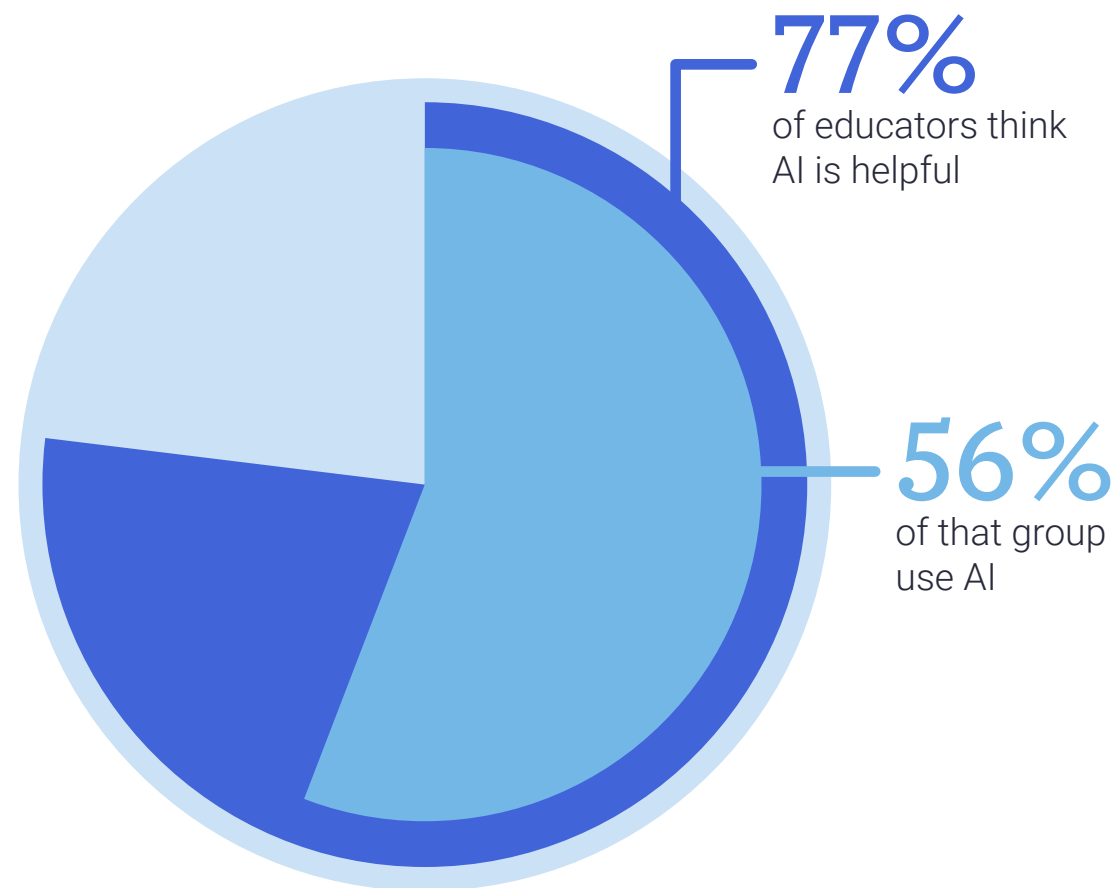


AI usage doesn't reflect AI attitude



More than three-quarters of educators believe AI is helpful... but only half of them use it.

That means almost a third of educators who believe AI could be helpful for them rarely or never use it.



EDUCATOR VOICES



What is holding you back from using AI despite believing that it's useful?

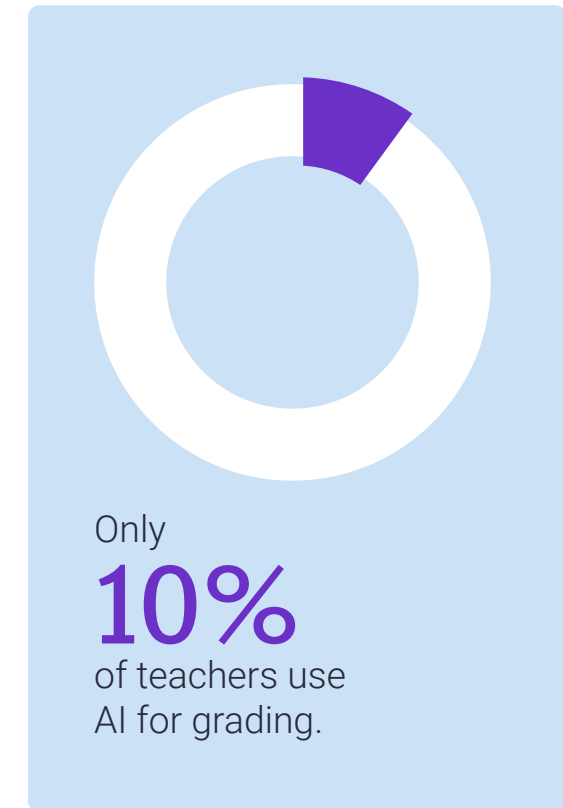
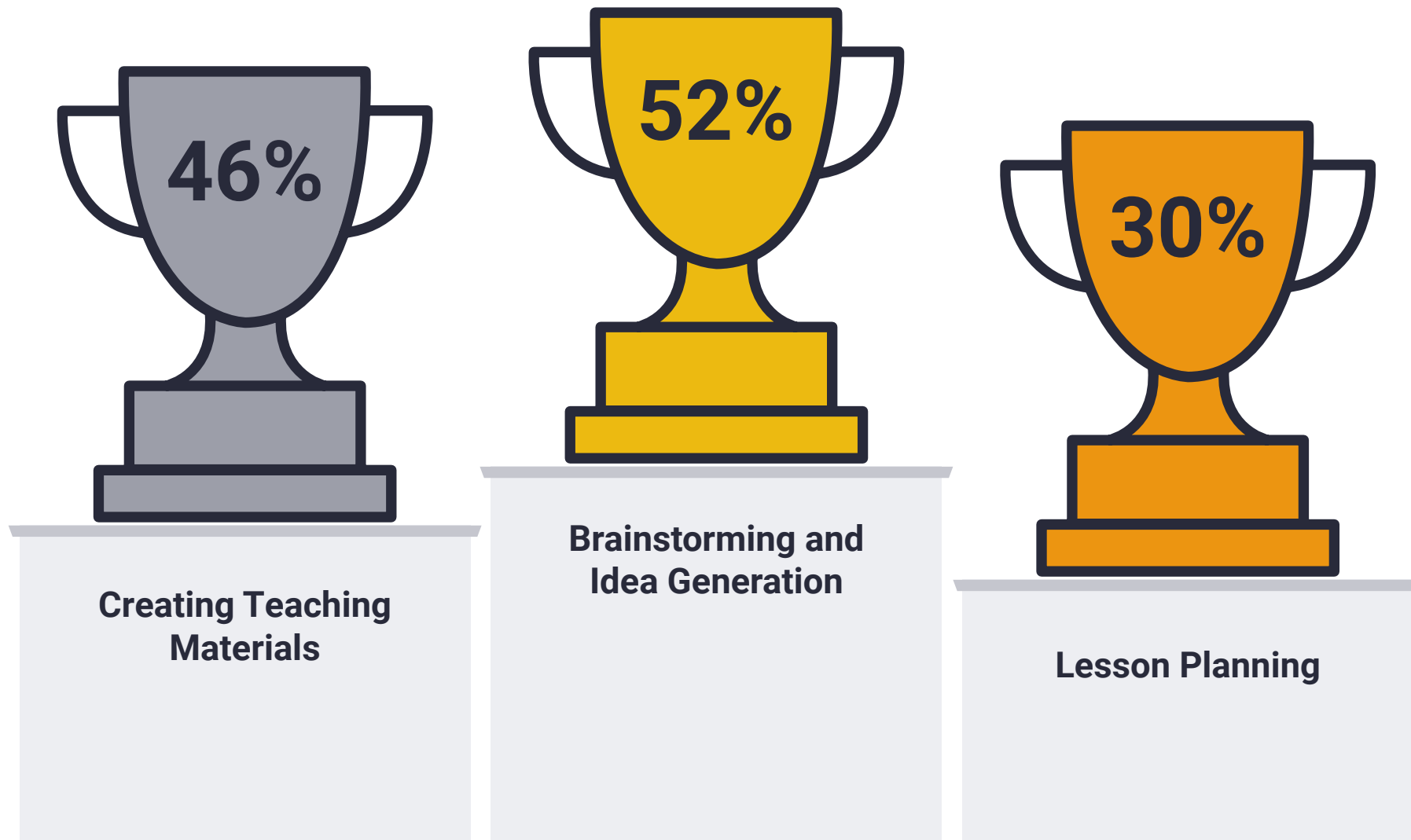
"We have not made any district-wide commitments at this time as our focus is to get better at what we currently do. If our teams decide AI makes them better at what we do, we'll embrace it."

Matt Vosberg, Superintendent
Bradley-Bourbonnais Community High School
District #307, IL



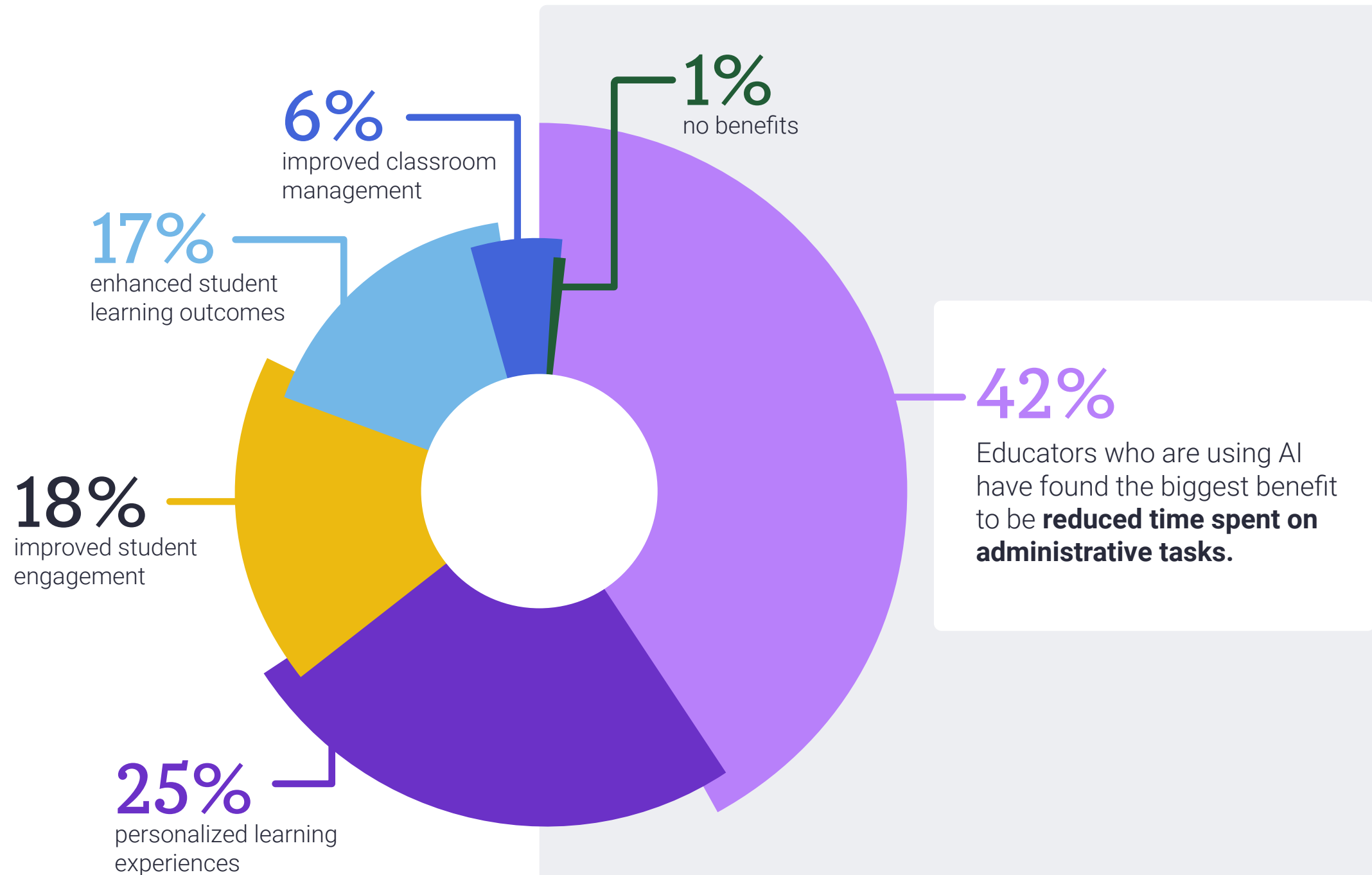
The top 3 ways

teachers use AI tools are:

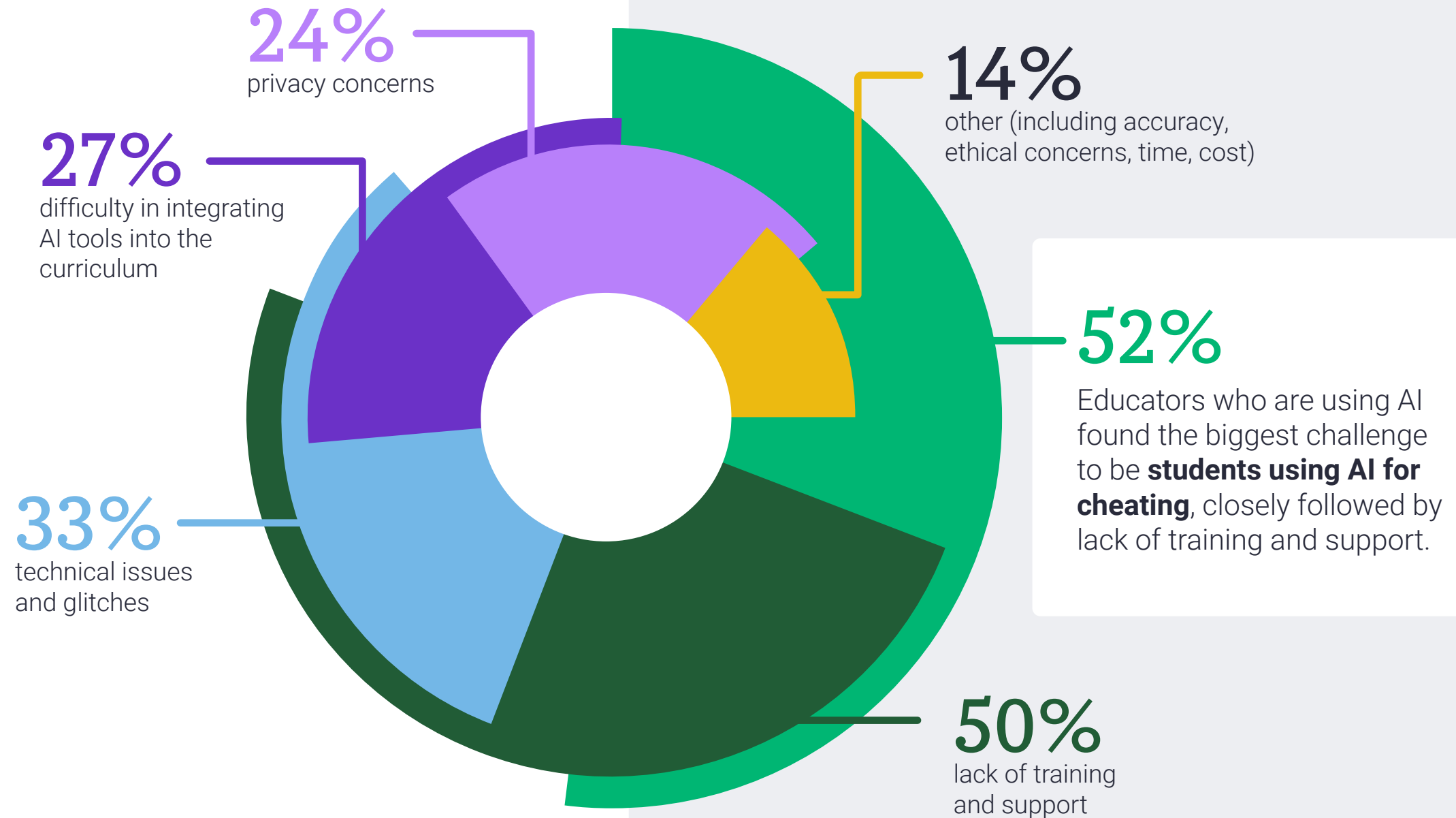


- Teachers' favorite AI tools:**
- ChatGPT
 - MagicSchool
 - Canva
 - Google Translate
 - Google Bard

The biggest benefit of AI for educators is saving time

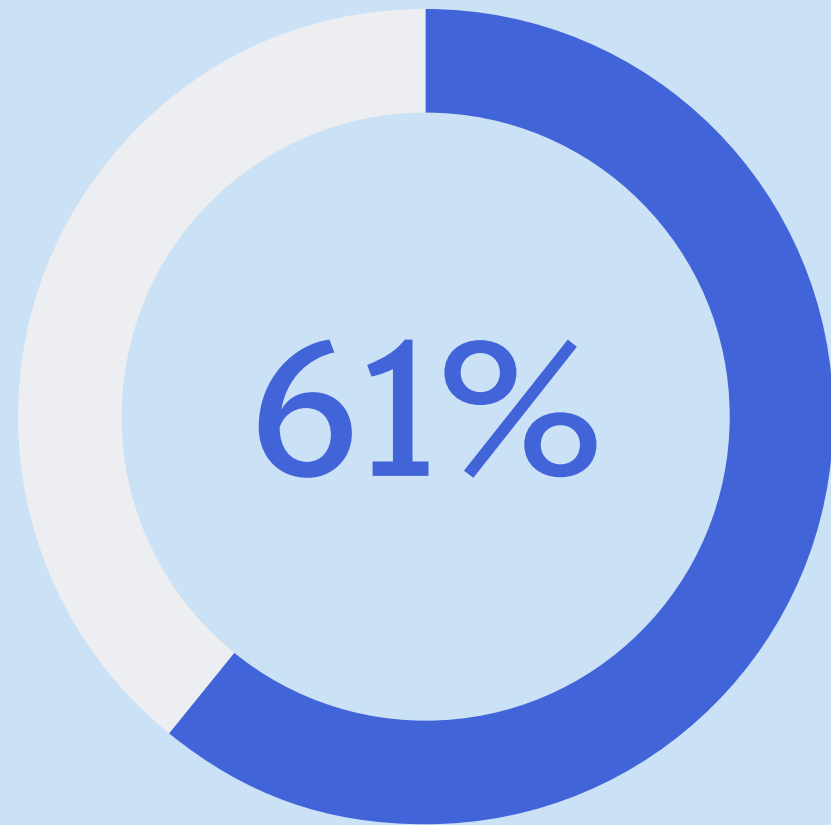


Cheating is the biggest challenge

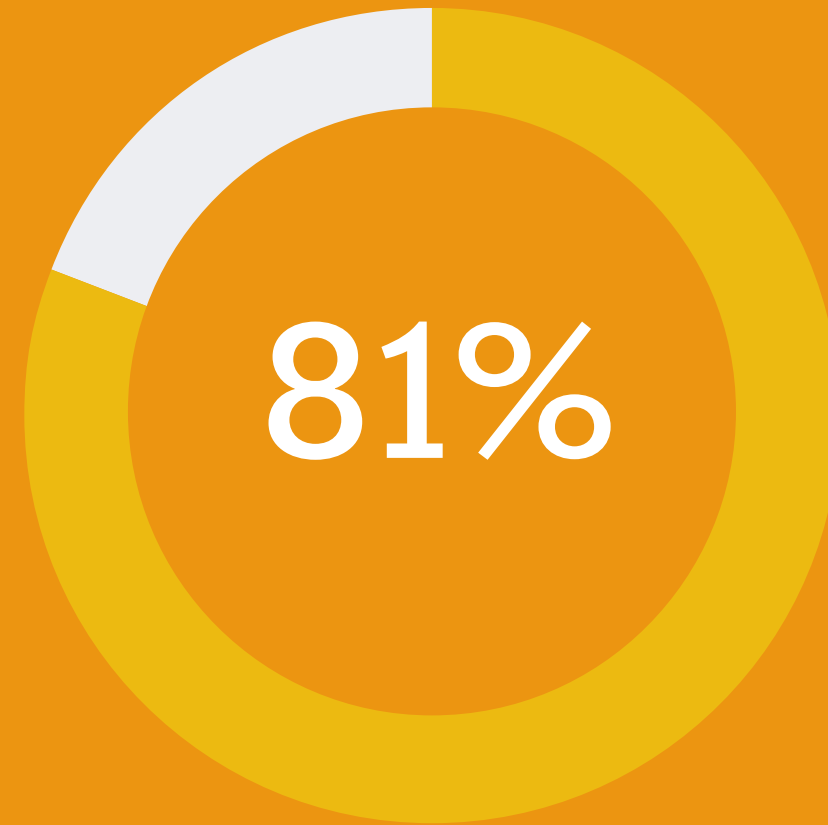


Educators' anxieties about student AI usage runs deep

Most educators ban student use of AI...



... and even more worry about students using it to cheat.



Teachers and administrators view AI differently



Teachers are less comfortable with students using AI than administrators are.



23% of teachers and **8%** of administrators are **“very uncomfortable”** with allowing students to use AI.



31% of teachers and **61%** of administrators **allow students to use AI.**





Why **do** you allow students to use AI?

"Like the calculator before it, I see AI as a massive opportunity to level the playing field for students who may be disadvantaged by overcrowded classrooms or poor resources."

John Warren, Spanish Teacher
North Carolina



"I allow my students to use AI because it is an incredible tool that allows students to extend their learning in many ways. Students can use AI to help improve and enhance their writing skills. They can use AI to generate outlines to help them organize writing. Students can also use AI to edit their writing products for accuracy, grammar, and flow."

Aimee Hall, World Language Department Chair and MS Spanish Teacher
Columbus Academy, Ohio





Why **don't** you allow students to use AI?

"The reason I do not allow my students to use AI-generated text for their assignments is because at this stage in their lives, if they do rely on AI, they miss developing the thinking skills they will need in their adult lives. If we allow students to use AI to do the thinking for them, how will they ever learn how to think on their own?"

Janna Neville, Language Arts Teacher
Utah Online School 6–12, Washington County School District, Utah



"As an English teacher, I want the students to use their own words in the paper that they are asked to write. Unfortunately, students at the middle and high school level are not able to understand that by using AI they are cheating themselves out of learning how to write in their own words and voice."

Della Nagle, Spanish and English Teacher
Bernal Middle School, Northside Independent School District, Texas



"I remind them that their job is to learn, and using AI in French will prevent them from grasping material covered in class. Yes, it might make it easier to complete a writing assignment, but they will not master the language if they ask AI to do the work. By using their brains—and not AI—they will learn French. A robot will not make this happen."

Jennifer Nelson, High School French Teacher
East Windsor Regional School District, New Jersey



The most important benefit of AI for students isn't saving time



Although AI is often equated with saving time, most educators believe it's even more important for AI to build a deeper understanding of concepts or lessons.

Here's how educators ranked potential student benefits:

- 1 Building a deeper understanding of concepts or lessons
- 2 Saving students time/making learning more efficient
- 3 Fostering creativity
- 4 Creating more equitable learning environments
- 5 Building confidence
- 6 Increasing student achievement

EDUCATOR VOICES



Why did you rank "Building a deeper understanding of concepts or lessons" higher than "Saving students time/making learning more efficient"?

"Instead of trying to plug up holes in learning, I want my students to backfill their learning so that it carries them beyond the current concept. AI has become the missing piece of the puzzle. Yes, AI helps with efficiency, but I want my students to be proactive in building their learning skills. AI helps gather content while students make the connections. Without the technology, the learning gets lost in the burden of the process."

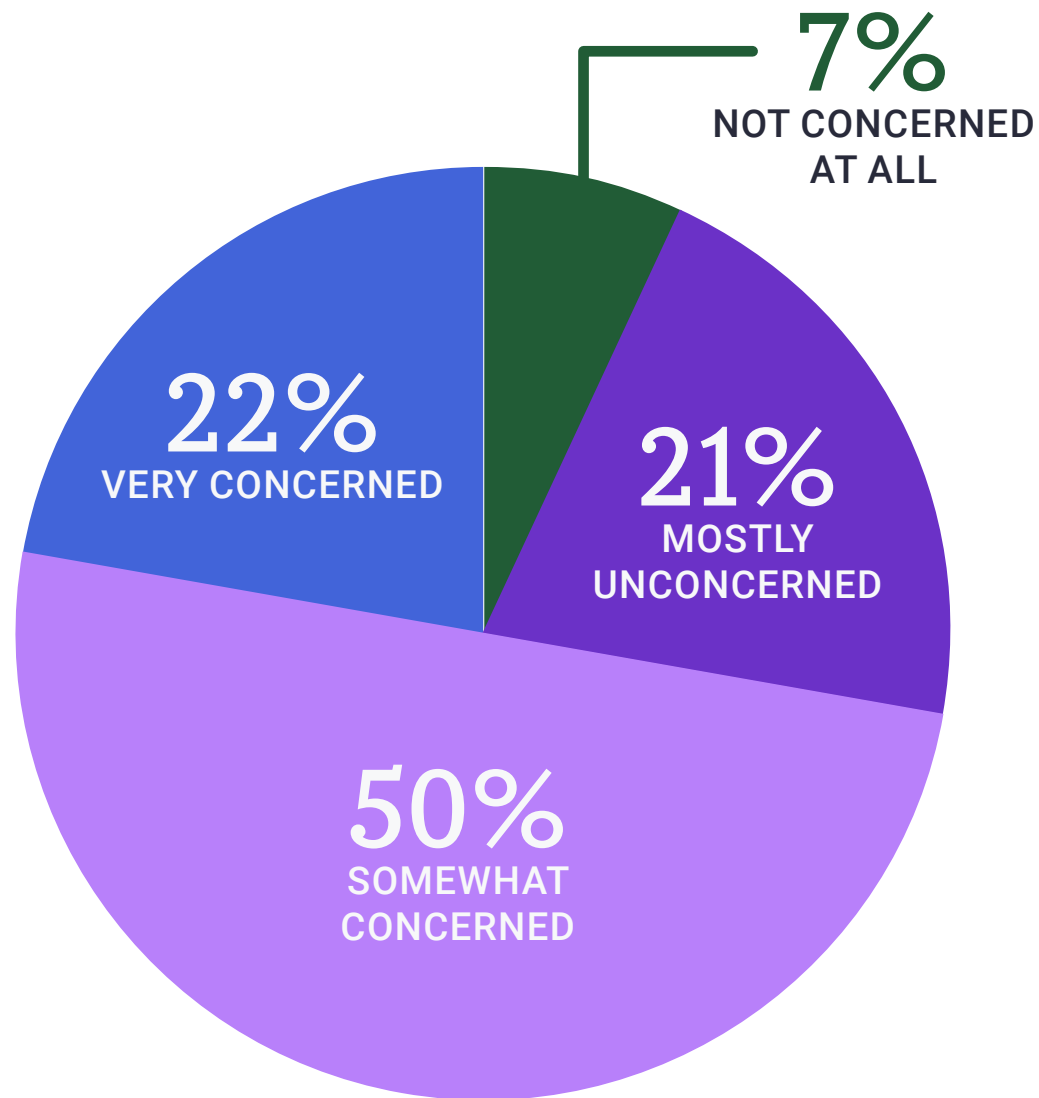
Romaine McCarthy, 8th/9th Grade Learning Specialist
Isidore Newman School, LA



Educators are concerned about privacy... but not too concerned



Most educators are **somewhat concerned** about privacy issues related to AI use in education.



EDUCATOR VOICES



What are your privacy concerns related to the use of AI in education?

"It is very difficult to ascertain who is collecting data and for what companies. AI could target our students for commercial reasons. There are not enough regulations or general parameters to unleash AI on our students as of yet."

Rebecca Siedmon, 4th Grade Gifted ELA Teacher
Addison Mizner School



"My concerns are the collection of data and tracking of online behaviors specifically for adolescents."

April Broussard, Upper School Spanish Teacher
The Town School, New York



AI policies are uncommon



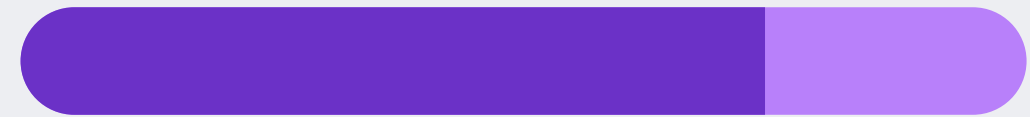
Despite widespread interest in AI in education, most educators have not implemented AI policies.

80%



of administrators do not have policies on AI at their school or district

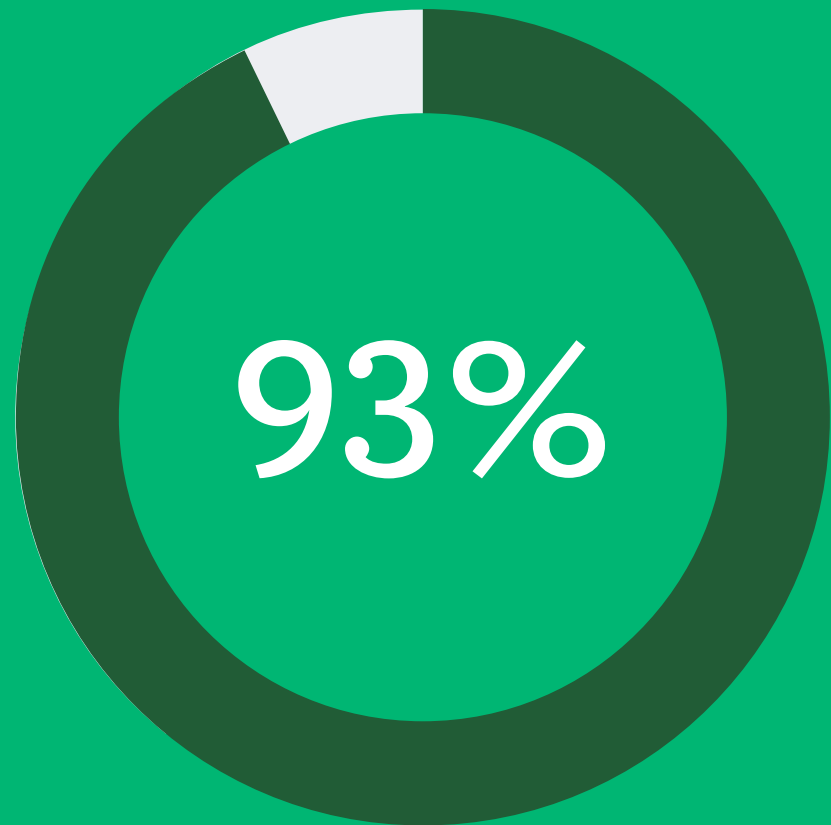
74%



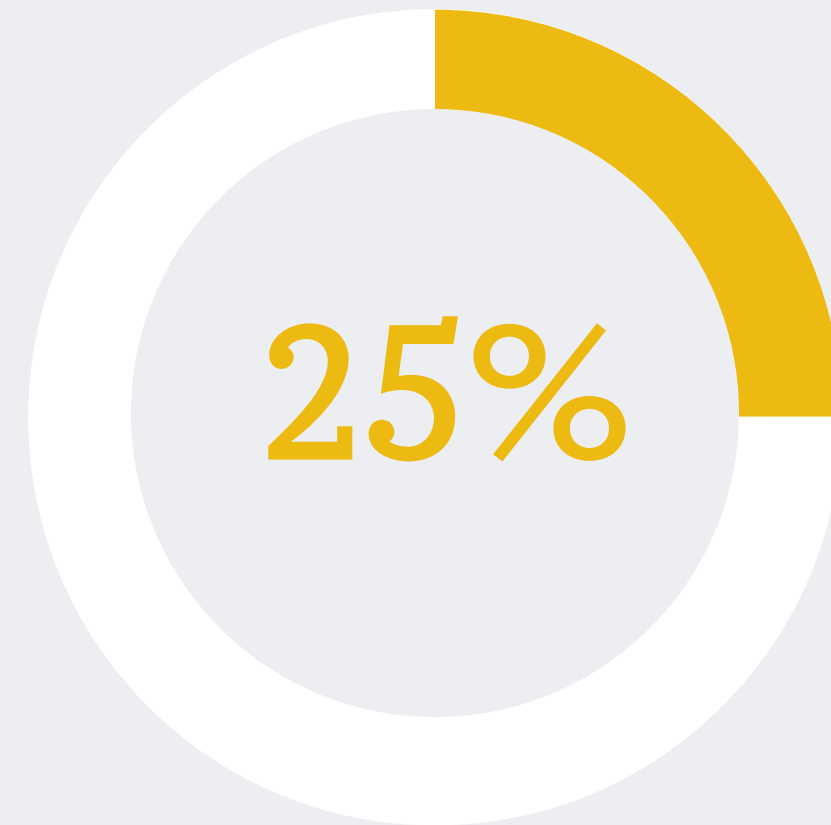
of teachers do not have a classroom AI policy

AI teacher training is uncommon

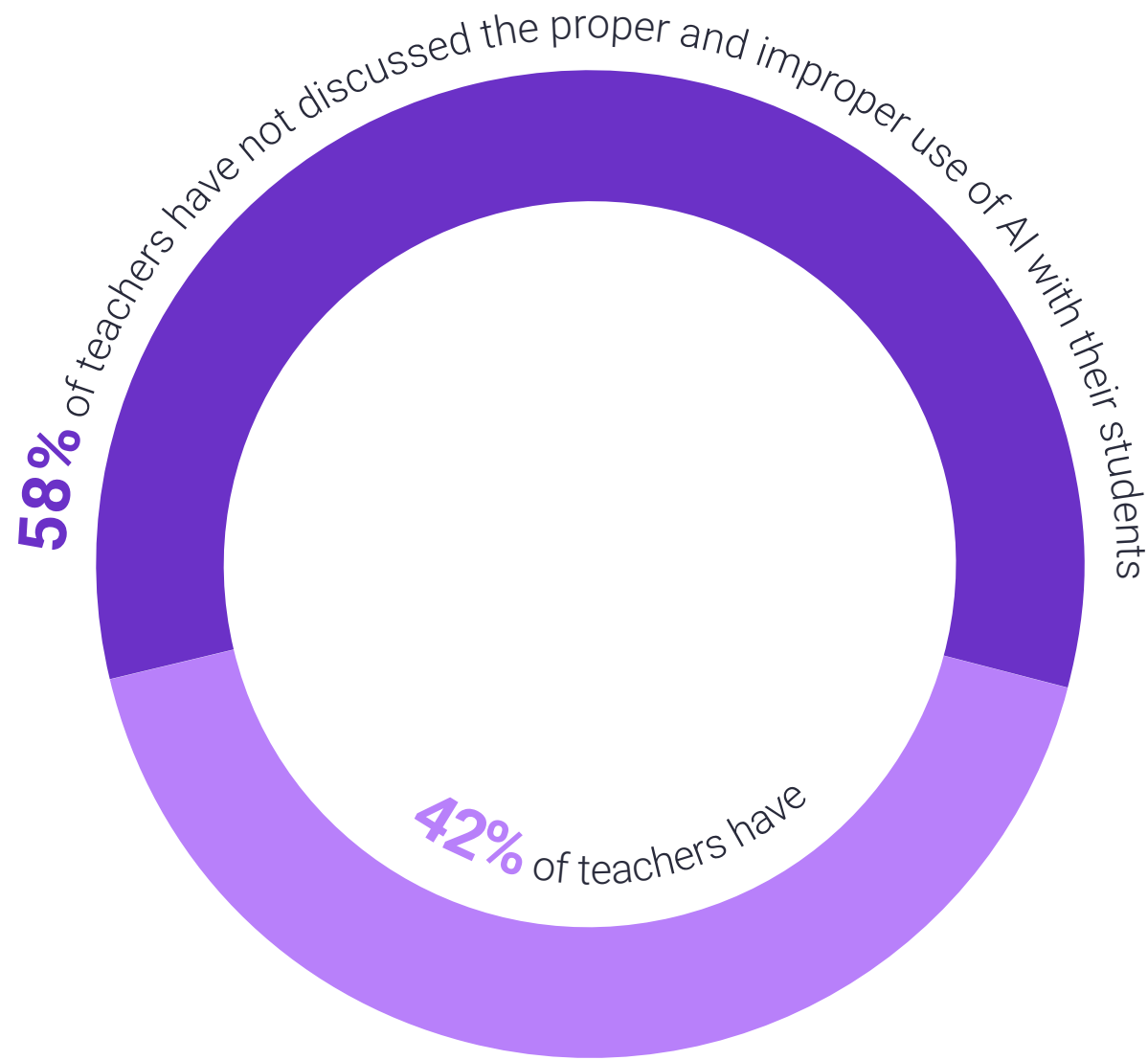
93% of administrators believe it's important to provide teacher training on AI...



... but only 25% of their schools or districts have provided it.



Most students haven't been instructed on AI use



EDUCATOR VOICES



Why did you discuss proper uses of AI with your students?

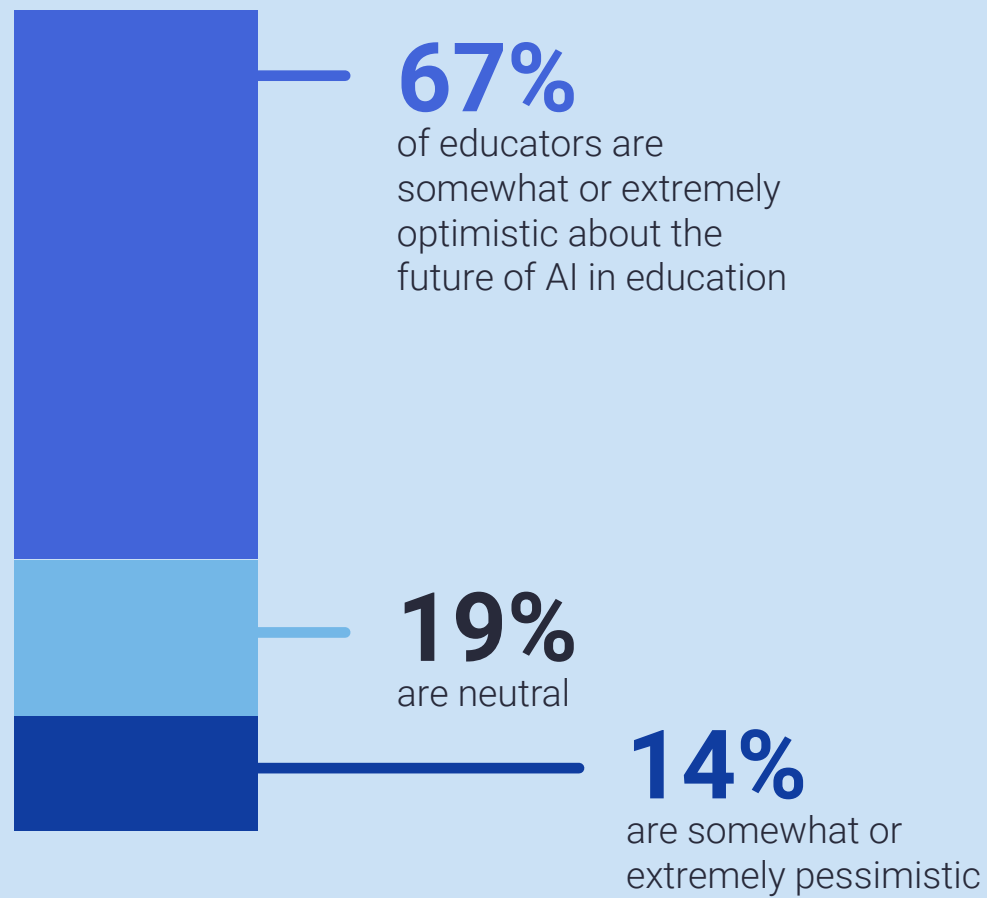
"As educators, we cannot ignore the simple truth that students will use AI tools and that we have an obligation to teach them how to use it appropriately when it comes to their academics. When I have an AI discussion with my students, I explain to them that they should be using AI tools and the information they gather from them to help construct their knowledge or understanding of a topic. At the end of the day, teaching students that there is appropriate balance between information generated from AI and that of their own perspective and critical thinking is key to understanding that using AI."

Amanda Holveck, 7th Grade Math & SS Teacher
Saucon Valley School District, Pennsylvania

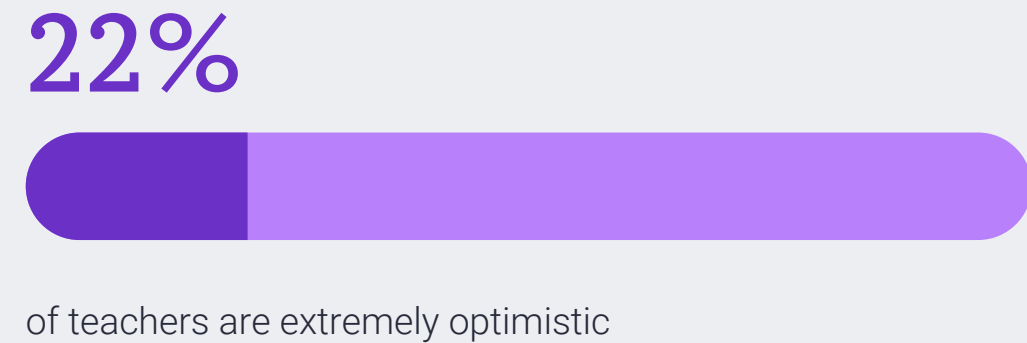


AI optimism is high

Most educators are optimistic about the future of AI in education...



... but administrators are more optimistic than teachers





Why are you **optimistic** about the future of AI?

"So many benefits and uses! Here are some examples: enhanced learning opportunities, automation of repetitive tasks, access to educational resources, assistance in grading assignments, support for special education, innovative teaching tools, and professional development."

Cary Poe, Instructional Technology Resource Teacher
Greenville Elementary School, VA



"AI is here to HELP! The AI way is the way of the future, and with AI, I'm optimistic about getting a chance to reach even more students. I see AI as a third voice in my classroom that is there to guide my students in their process. I see how [MATHia's AI] is shaping our students' way of thinking."

Jasmine Wyatt, Middle School Math Teacher
Spring Independent School District, Texas





Why are you **pessimistic** about the future of AI?

"The abuses that may arise from AI are NOT worth the benefits. Do we want future generations of humans who are successful at manipulating software/electronic devices or do we want them to learn, function, and excel in a human-centered, moral, and authentic context?"

Helen Son, Middle School Math Teacher
Brockton Public Schools, Massachusetts

"We need to educate parents and the school community as a whole, but I'm pessimistic about how keen people at the administration level are to do this if they have not done it as effectively before with the adoption of phones, social media, and video games in the classroom."

Carlos Diaz, Librarian & Media Specialist
Renaissance International School Saigon



Conclusion: The future of AI

Our 2024 AI in Education Report reveals—among other things—a marked difference between administrator enthusiasm and teacher skepticism. While administrators eagerly adopt AI’s capabilities, teachers harbor doubts without proper training and safeguards. Overall though, cautious optimism prevails.

The findings confirm AI’s potential to enhance efficiency, engagement, and equity if thoughtfully implemented. However, as usage amplifies, addressing ethical dilemmas remains paramount, from student data privacy to academic integrity threats.

Action items for administrators

Our research signals several actionable next steps, particularly for administrators:

1

Develop comprehensive policies at the district and state levels to govern ethical AI adoption, prioritizing student protections and teacher supports.

2

Provide extensive, ongoing professional development for educators to develop AI literacy and skills. Democratize access to training.

3

Conduct further research to continue gathering educator insights and assess real-world impacts on learning outcomes over time as adoption accelerates.

4

Foster open dialogue through conferences and community forums focused on AI best practices and problem-solving around implementation challenges.

We believe that the best way forward lies in partnership: administrators partnering with teachers, schools partnering with families, and the private sector partnering with the public sector. Together we must shape and steward this technology to truly augment—not replace—the invaluable human elements of education.

[Access the webinar on AI insights and strategies](#)