

DATA-DRIVEN TEACHING: A MUST-HAVE IN THE AGE OF TECH

2018 trends in U.S. K-12 schools

Insights from Kahoot!'s fast-growing platform

70M+
Monthly
active users

51M
Games on
the platform

>50%
U.S. K-12
students use
Kahoot!

47%
U.S. K-12
teachers use
Kahoot!

Introduction

Last year we published our first-ever EdTrends Report for Educators, with the goal to provide a useful resource for the teaching community worldwide. We were overwhelmed with the positive response we received, and now, we're proud to present the **2018 Kahoot! EdTrends Report for Educators**, which highlights trends in EdTech, top technologies and tools used in classrooms, as well as challenges and opportunities for educators. This report is based on results from a survey of more than 1,500 K-12 teachers across the United States, data from the Kahoot! platform and the expert insights of a teacher we interviewed.

The focus of this new report is on the evolution of the data-driven teacher who is working hard to impart 21st Century skills to her/his students through the mindful use of data and technology in the classroom. From our report we found that U.S. teachers, despite a lack of funding and training, are finding a way to incorporate technology into their classrooms - and are more open to using data-driven instruction and intervention to improve student performance. Read on to learn more about these trends and challenges in today's K-12 classrooms and schools.

Top trends

1

Data-driven instruction goes mainstream in K-12 classrooms

Teachers are increasingly using data in their classrooms in 2018 - showing a significant jump in awareness and usage of data practices to improve student performance compared to the same time last year.

2

Teachers see tech as a must-have for developing strong 21st century skills

The teacher of today's priority is to prepare their students for the jobs of tomorrow and develop 21st century skills, including the 4 Cs - collaboration, creativity, critical thinking and communication. Most teachers use technology to implement these practices in their classroom.

3

Google is the top choice in classroom for hardware and software

Google remains a favorite with both teachers and students in hardware and software usage in U.S. K-12 classrooms. Their affordable Chromebook devices made a huge leap to come out on top of the list and their LMS offering, Google Classroom, is a favorite by a huge margin.

TREND #1: DATA-DRIVEN INSTRUCTION GOES MAINSTREAM IN K-12 CLASSROOMS

Data-driven instruction gains pace, and has become mainstream in the classroom. In the very recent past, teachers used simple data collection and analysis techniques in the classroom, yet now, educators tap into more complex methods related to data. In the Kahoot! survey, 3 out of 4 teachers defined data-driven instruction and intervention as a top trend they see in their school and district in 2018. This trend gained significant pace compared to the same time last year when only 28% of surveyed teachers agreed data usage was a trend in their school or district.

Teachers who rely on data-driven instruction and intervention are also more likely to conduct formative assessment (83%), followed by summative assessment (72%) as a way to better instruct students and improve their performance based on data insights. This shows that teachers are now using data to consistently adjust their teaching based on student performance and needs, rather than relying on one-off testing methods.

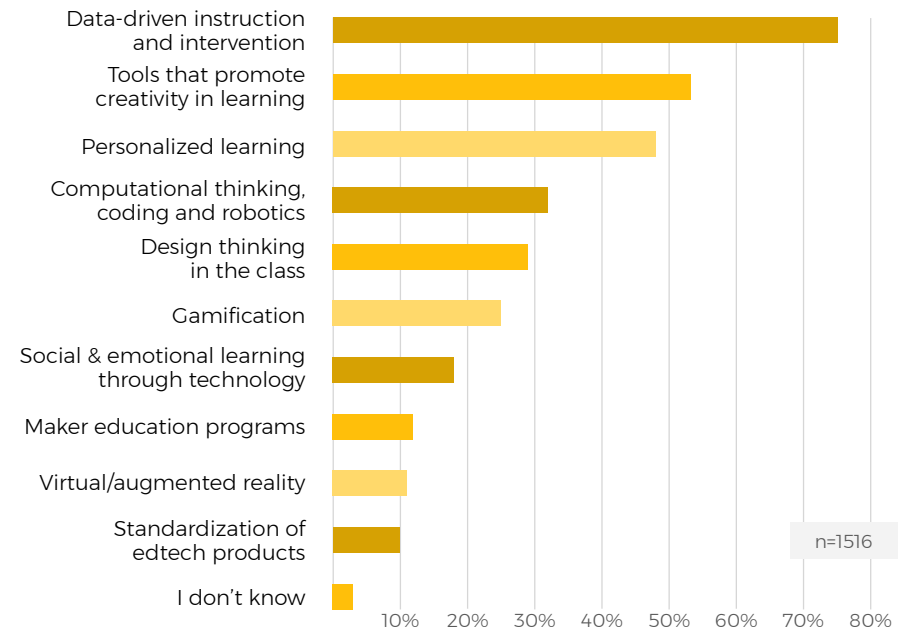
Also, teachers who use data-driven instruction are more likely to be high school teachers, according to the survey.

Another trend the survey revealed is teachers' increasing interest in tools that promote creativity and personalized learning. This clearly indicates that teachers are consciously working to prepare their students for life and work in a technology-driven world. 1 in 2 teachers surveyed felt that usage of tools to promote creativity and personalized learning are trends in their school or district.

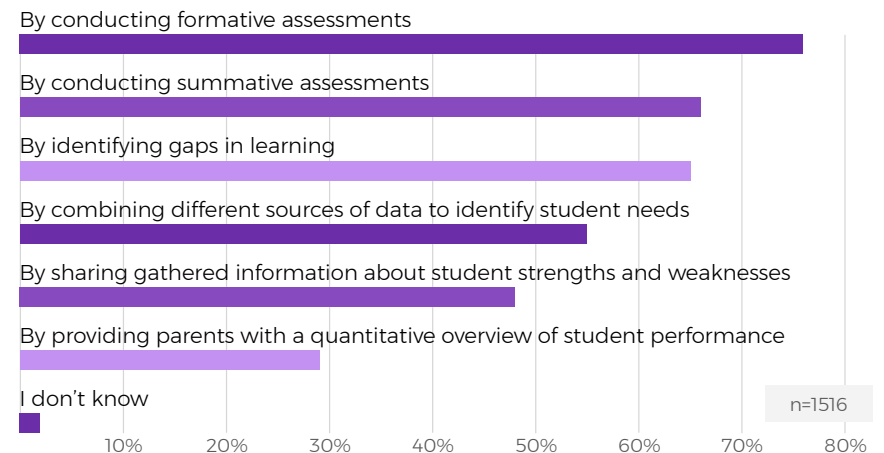
Interestingly, virtual and augmented reality which seems to be a hot hit in tech scored low in popularity (11%), as schools and districts could not be quite ready with equipment and resources to implement them yet. Maker programs also stayed relatively less relevant with only 12% of respondents' votes.

Gamification in the classroom, on the other hand, continues to grow, used by educators as a way to boost student engagement. Last year, 18% of surveyed teachers voted for gamification, and this year, the share increased to 25%.

What trends are you seeing in EdTech in your school or district?



How do you use data in your classroom to improve student performance?



TREND #2: INSUFFICIENT FUNDING AND TRAINING STILL STAND BETWEEN TEACHERS AND TECHNOLOGY ADOPTION

As expected, the biggest roadblock for teachers in implementing technology in their jobs is lack of funding from their school or district - 1 in 2 teachers surveyed said they struggle with this problem. Things haven't changed much since 2017 when the same share of respondents (51%) stated this was a core challenge.

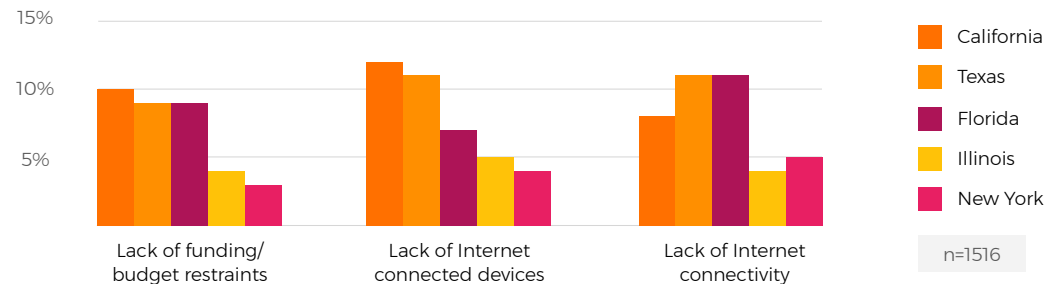
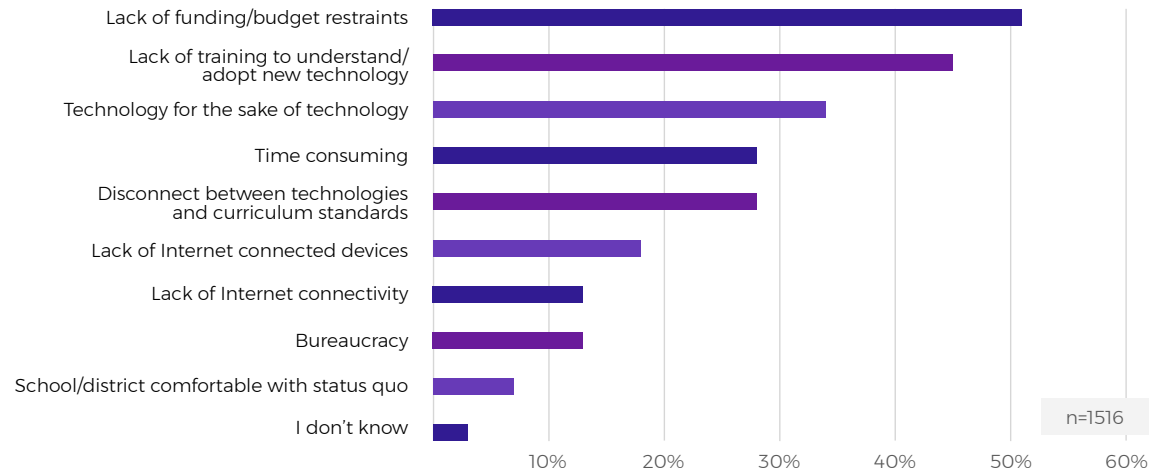
In particular, public school teachers struggle with budget restraints (89%), mostly at the high school level (49%).

Lack of training remains the second largest challenge for teachers, preventing them from using more tech in class (45% of teachers in 2018 and 46% of teachers in 2017). Sadly, in today's digital age, connectivity is still an issue for many schools. 1 in 5 U.S. teachers are affected by lack of Internet or device connectivity in their classrooms.

California and Texas are the top states that struggle with the lack of funding as well as lack of connectivity and connected devices. 12% of California teachers said they experience lack of Internet connectivity and 11% of Texas teachers said the same.

Some teachers take matters into their own hands by paying for EdTech tools out of their own pocket. Over 1 in 4 teachers surveyed said they paid for EdTech tools on their own dime.

What are the main challenges you have in implementing educational technology successfully in your job?



Do you pay for any EdTech tools out of pocket?

n=1516

73%
No



27%
Yes

TREND #3: DEVELOPING 21ST CENTURY SKILLS IS TOP OF MIND FOR TEACHERS WHEN USING TECH

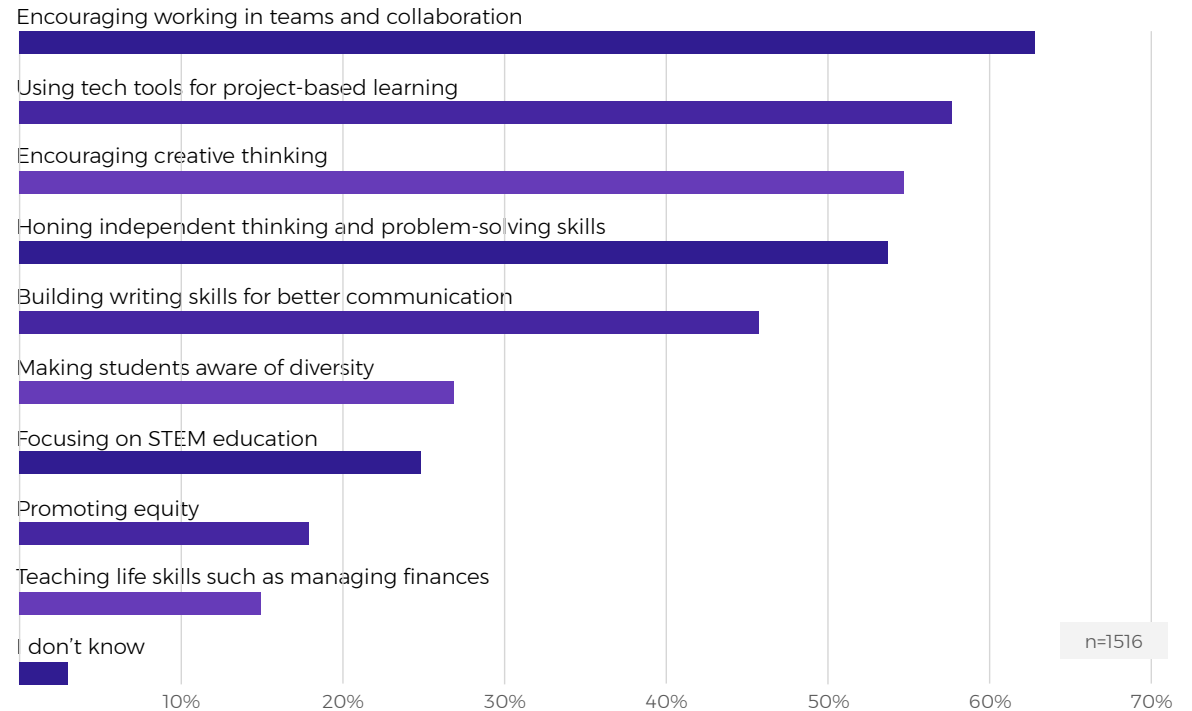
21st century skills evolve around the 4Cs: Collaboration and teamwork, creativity and imagination, critical thinking and problem solving, and communication. A big priority for today's teachers is to help their learners develop strong 21st century skills in order to prepare them for the jobs of tomorrow.

1 in 3 teachers are using technology to encourage working in teams and collaboration, 58% are using tech tools for project-based learning, and 55% to encourage creative thinking. Honing independent thinking and problem-solving skills is not far off, with 54%.

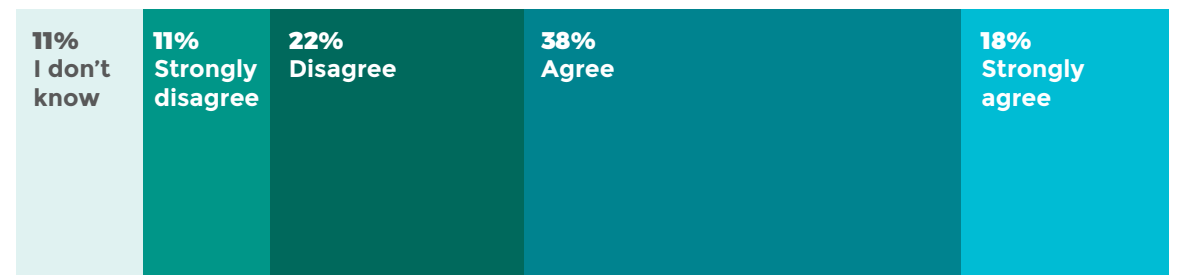
While focusing on STEM education scored lower with teachers who are preparing students for 21st century skills (25% of overall survey respondents), it is a priority specifically with Math and Science teachers, with 45% of Math teachers and 54% of Science teachers voting for it.

Teaching skills to prepare students for adult life is also important for teachers and districts - 1 in 2 teachers say life skills are included in their school or district curriculum.

How do you leverage technology to help your students develop 21st century skills and prepare for entering the workforce?



Teaching life skills (for example, managing finances) to students is part of my school and/or district curriculum.



TREND #4: GOOGLE CONTINUES ITS ASCENT IN CLASSROOMS FOR HARDWARE AND SOFTWARE

Windows very popular with teachers, while iOS devices appeal more to students.

Google continues to be the dominant player with teachers and students, leading in both hardware with Chromebooks and software with Google Classroom (a Learning Management System) and Chrome OS operating system.

Kahoot! platform data

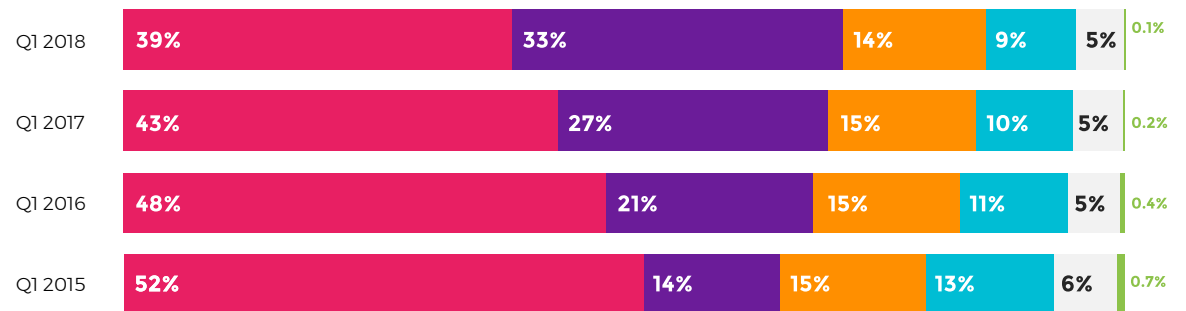
On the Kahoot! platform, student usage of Chrome OS jumped to 33% in Q1 2018 from 27% same time last year taking market share from iOS. However, iOS still remains the no.1 used platform by students with 39% compared to 43% last year. Since 2015, Chrome OS has been rapidly ascending with students, and is now nipping on the heels of iOS for market leadership after first grabbing share from Windows (Chrome OS share went from 14% in Q1 2015 to 33% in Q1 2018).

On the other hand, Windows remains teachers' favorite operating system with a 56% share in Q1 2018, based on usage on the Kahoot! platform. Windows' share increased only slightly from the same time last year, up from 56%. Chrome OS made steady progress with teachers from Q1 2017 to Q1 2018, moving from third place to second, displacing macOS.

Breakdown of U.S. Kahoot! sessions by OS (students vs. teachers)

■ iOS ■ Chrome OS ■ Windows ■ Android ■ macOS ■ Others

Students (players)



Teachers (hosts)



TREND #4 CONTINUED

Kahoot! survey data

According to data based on our survey, Chromebooks continued their dominance amongst teachers with 43% of survey respondents stating they use the low-cost devices from Google to instruct in their school. Google's position with teachers stayed relatively the same as last year. However, Microsoft's Windows PC and laptops have become the second-favorite hardware choice for teachers with both achieving 35% of the vote each - slightly higher than last year.

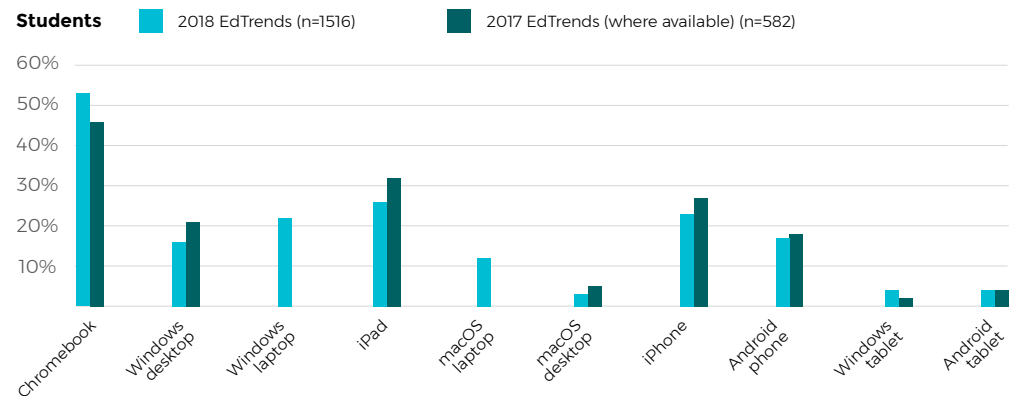
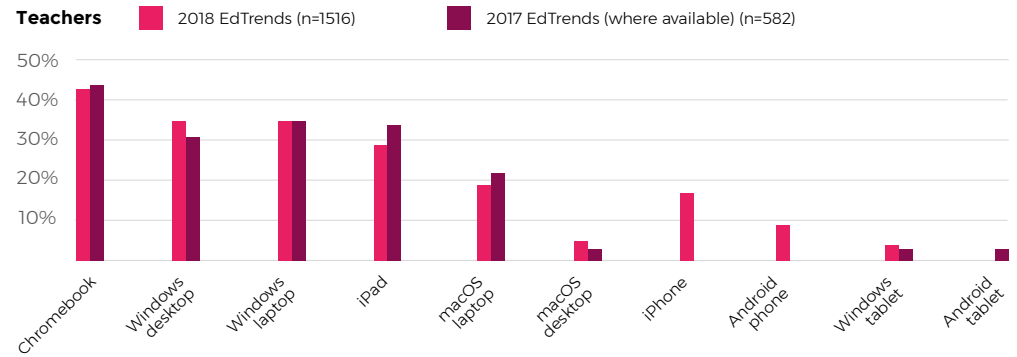
iPads have lost their position with a drop of 5 percentage points to receive 29% of the teacher vote. However, iOS devices (iPads and iPhones) score higher with students. Although lower than last year, iPads come in second (26%) and iPhones come in third (23%) when teachers were asked which connected devices their students use most frequently to learn with in their classroom or school.

Yet, the highest gain in this category (devices used by students) went to Chromebooks, which went from 46% in 2017 to 53% this year - proving yet again Google's prominence with both teachers and students.

Google overtook Windows in the OS category in 2018 with 53% of surveyed teachers picking Chrome OS as the operating system most frequently used in their classroom or school - leaving Windows and macOS behind in the dust with 30% and 7% respectively. In 2017, Windows was the dominant player with 42% of the vote and Chrome OS following closely behind with 41%.

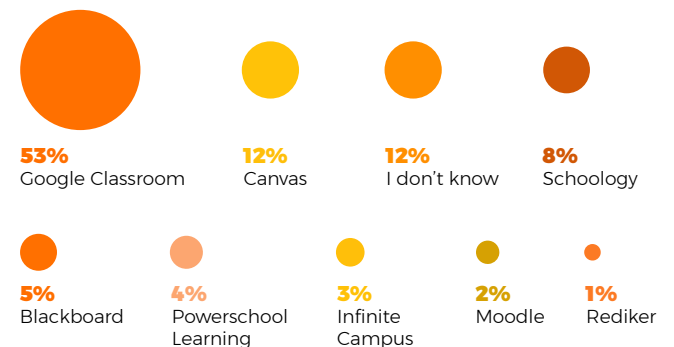
Google also has a giant lead in the LMS (Learning Management System) category compared to smaller competitors, with 53% of teachers surveyed stating that Google Classroom is the LMS most frequently used in their classroom or school.

Which connected devices do you use most frequently to instruct in your classroom or school? Which connected devices do your students use most frequently to learn with in your classroom or school?



Which learning management system (LMS) is most frequently used for instructional purposes in your classroom or school?

n=1514; 2 missing





ED TALKS

with Amy Bass 4th & 5th grade teacher

Great Valley Elementary School
Stockton, California

Amy has taught 4th, 5th and 6th grade at Great Valley Elementary, where she has spent 17 years as a teacher. Amy is a strong believer in using data to personalize learning in the classroom and using technology to prepare her students with 21st century skills.

How important do you think data-driven instruction and intervention are in the classroom and why? How do you implement this in your class?

It is extremely important to use data-driven instruction because as a teacher I need to know which concepts my students are struggling with. I know if I need to reteach lessons or if I can simply review a lesson. I look at data frequently to see where my students are making errors, to both correct them and show them where they are making mistakes.

I use lesson quizzes to see what concepts need to be retaught - these are set as homework/classwork assignments which carry less weight than a test. Using lesson quizzes allows me to see what needs to be reviewed or taught differently before the students take the test. I use Kahoot! to prepare my students for the district summative assessments. I give them a practice test first, to see which concepts they are struggling with, then I reteach those lessons. Afterwards, I give a Kahoot! to see if the retaught lessons helped them or not.

Which skills do you think should be taught in class to prepare the students of today for the jobs of tomorrow?

I believe students need to learn computer literacy skills. They should learn how to type efficiently and learn basic computer programs, like Word, PowerPoint, Excel, etc. I also believe they need to learn how to navigate on the Internet and understand which sources are reliable versus which ones are not.

Students need to learn to collaborate and hone their problem-solving skills to be prepared when they join the workforce.

How do you help your learners develop strong 21st century skills? Please share your best practices.

I use a lot of technology in my classroom: my students complete almost all of their social studies, health, and science worksheets in their (Microsoft) OneNote folders. I also have my students type their information reports in Microsoft Word, and I require each student to create a PowerPoint for their report as well. Lately, I have been using a lot of Mystery Science (tech provider of science lessons) to teach the science concepts. These lessons require the students to work in collaborative groups. Mystery Science lessons rely more on STEM and the new NGSS (Next Generation Science Standards) standards rather than our old textbooks which are outdated.

In fact, I rarely use textbooks, especially in the last two years! I frequently have my students work in small groups on their language arts/reading skills, as well as in science. I encourage my students to look at multiple ways of solving for an answer, especially in math. I primarily teach about diversity and equity in social studies, but I also find ways to implement mini-lessons about equity and diversity as we come across those topics in our literature anthologies as well.

Continued →

How does it help students to become more in control of what they learn and create (i.e. a “learners to leaders” approach)?

Taking this approach makes students more excited about what they are learning and helps retain their knowledge for a longer time. Not only does it increase their self-esteem, but it also makes them take ownership of what they are learning and makes them think more deeply and holistically.

Is teaching life skills (for example managing finances) part of your school and/or district curriculum? If so, what exactly do you teach the students?

When I used to teach 6th grade, I made a copy of a checkbook register, and I had my students keep track of their [pretend] money. They had to pay fines for misbehaving and rent on their desks. They also got a salary every month, and they had opportunities to earn bonuses.

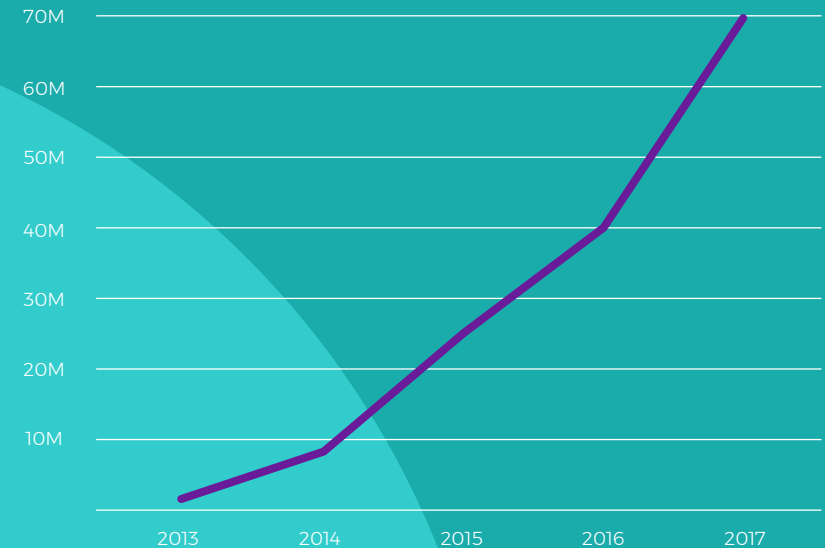
Our district does encourage all of us to teach Internet safety courses and create secure passwords. We also teach about character education, being a good citizen; respectful, fair, responsible, open-minded, appropriate, and safe.

What are the challenges you face when implementing technology in your classroom?

My biggest challenge is dealing with the Internet not connecting or a website not loading properly. Another issue that happens frequently is when our wireless display solution disconnects when I am in the middle of teaching something. It can be frustrating, but I try to use it as an opportunity to show my students how to troubleshoot and fix the situation. It also allows my students to see that they aren't the only ones who run into computer issues - it happens to all of us, including teachers!

KAHOOT! STATS

Kahoot! monthly active users



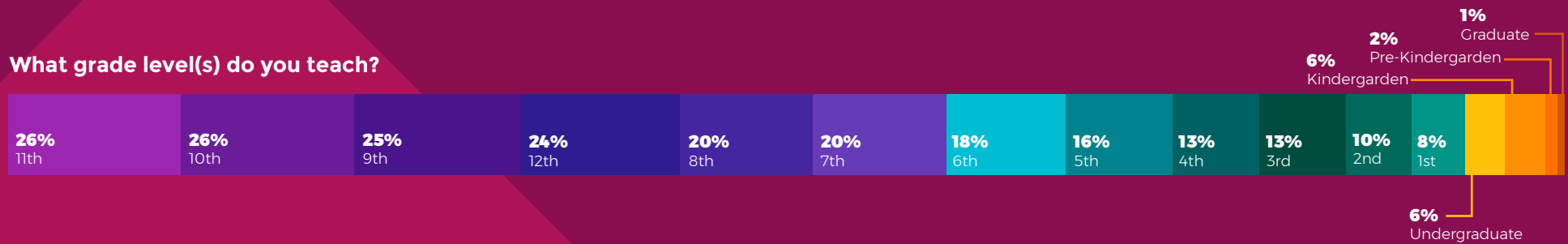
Top 10 languages of public kahoots



METHODOLOGY

This report is based on data from Kahoot! platform and a survey with 1,516 U.S. teachers, conducted in April 2018.

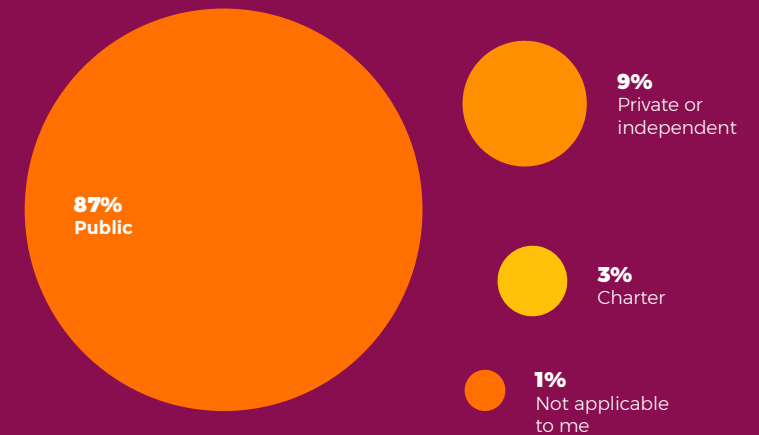
What grade level(s) do you teach?



Which subject(s) do you teach?



School type



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