

THE STATE OF TECHNOLOGY REPORT

2019

“We need to embrace technology to make learning more engaging. Because when students are engaged, and they are interested, that’s where learning takes place.”

Promethean[®]

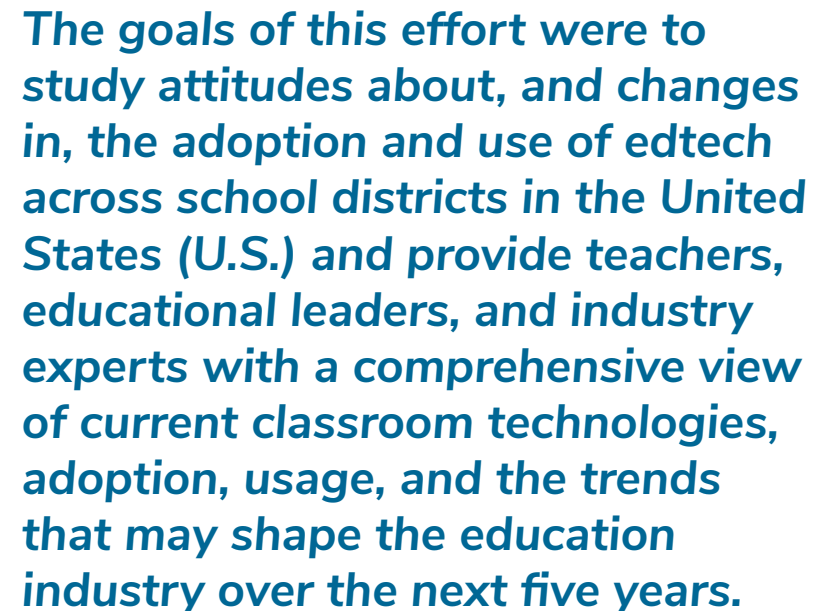
For the  of Learning

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INTRODUCTION AND GOALS

Results of Promethean's new State of Technology survey in the United States reveal both great opportunity and significant challenges in the field. Results from this new research effort indicate that both teachers and administrators see the promise of educational technology (edtech) in the classroom and across districts. Educational professionals do not need to be sold on edtech's advantages; however, the data indicated that legacy infrastructure, organizational inertia, and competing priorities continue to be barriers to the optimization of edtech in the classroom. Despite these barriers, survey results indicate the growing comfort teachers have with classroom technology and the high level of priority administrators are putting on technology in their districts.



The goals of this effort were to study attitudes about, and changes in, the adoption and use of edtech across school districts in the United States (U.S.) and provide teachers, educational leaders, and industry experts with a comprehensive view of current classroom technologies, adoption, usage, and the trends that may shape the education industry over the next five years.

“There are a lot of expectations from districts in terms of technology integration but not the financial or infrastructure support to effectively integrate technology in meaningful ways.”

— IT ADMINISTRATOR

INTRODUCTION AND GOALS

Findings in this report shed light on the complex field of edtech and provide insight into ways edtech can be used to improve student outcomes and achievement.

AGE	
24-34	6%
35-44	23%
45-54	37%
55-64	29%
65+	4%

SCHOOL DISTRICT SIZE	
Small (Fewer than 2,500 students)	30%
Medium (2,500 to 9,999 students)	23%
Large (More than 10,000 students)	47%

SCHOOL DOMAIN	
PUBLIC	89%
PRIVATE	7%
CHARTER	3%
OTHER	1%

SCHOOL TYPE	
PRESCHOOL	1%
ELEMENTARY SCHOOL	48%
MIDDLE SCHOOL	17%
HIGH SCHOOL	18%
K-12 SCHOOL	7%
OTHER	8%



The study includes the opinions of **958 EDUCATION PROFESSIONALS** from K-12 public, private, and charter schools across the U.S.



ATTITUDES TOWARDS TECHNOLOGY IN EDUCATION

EDTECH IS VALUED BUT UNDERUTILIZED

Survey findings reveal that teachers and administrators do not need to be sold on edtech's advantages; they already see great progress and promise in edtech, broadly.

In fact, 76% reported that they are constantly striving to innovate using technology as a tool for education, and 82% agree that technology accelerates learning.

TEACHERS AND ADMINISTRATORS ARE SOLD ON THE BENEFITS OF TECHNOLOGY

I am constantly striving to innovate by using technology as a tool for education.

ADMINISTRATORS: 83% YES

TEACHERS: 74% YES

Overall, do you think educational technology accelerates learning?

ADMINISTRATORS: 82% YES

TEACHERS: 86% YES

ATTITUDES TOWARDS TECHNOLOGY IN EDUCATION

Despite this positive view of edtech, these tools are often underutilized in pedagogical environments, which are rife with perpetual changes to the fundamentals of education and learning, harsh budget realities, and substantial workloads.

SURVEY FINDINGS AND QUALITATIVE RESPONSES SHOW TEACHERS ARE STRUGGLING WITH HIGH WORKLOADS, CAUSING THEM STRESS AND LEAVING THEM FRUSTRATED.



46%

of teachers believe the workload in their school or district is unmanageable.



36%

of teachers believe the workload is high but being addressed.

ATTITUDES TOWARDS TECHNOLOGY IN EDUCATION

27%

When it comes to administrators, a smaller proportion (27%) believe workloads are unmanageable.

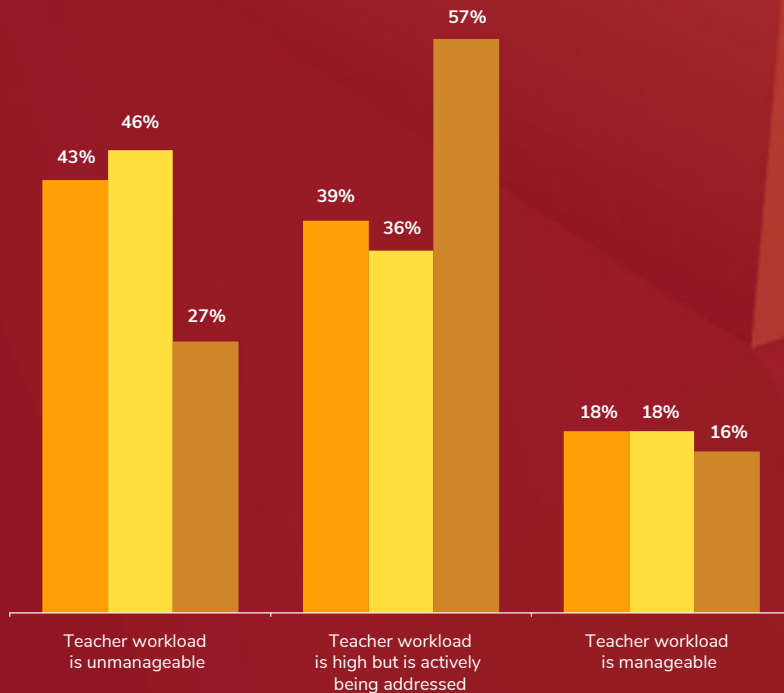


That said, 57% acknowledge that workloads are high, and 30% believe that streamlined processes would help to reduce stress on teachers.

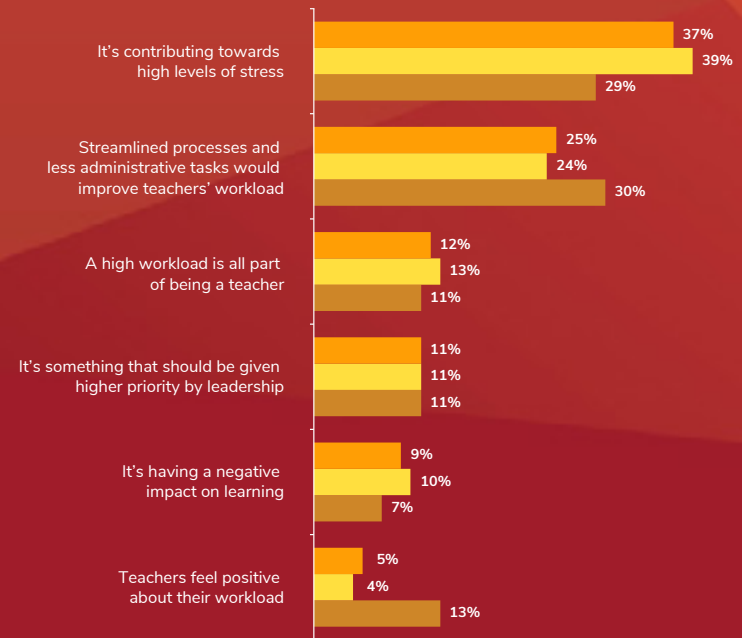
Teachers and Administrators Acknowledge High Workloads and Significant Stress on Educators

■ Total ■ Teachers ■ Administrators

How would you describe the workload of teachers in your school/district?



Which one of the statements below comes closest to describing your opinions towards the workload of teachers in your school/district?

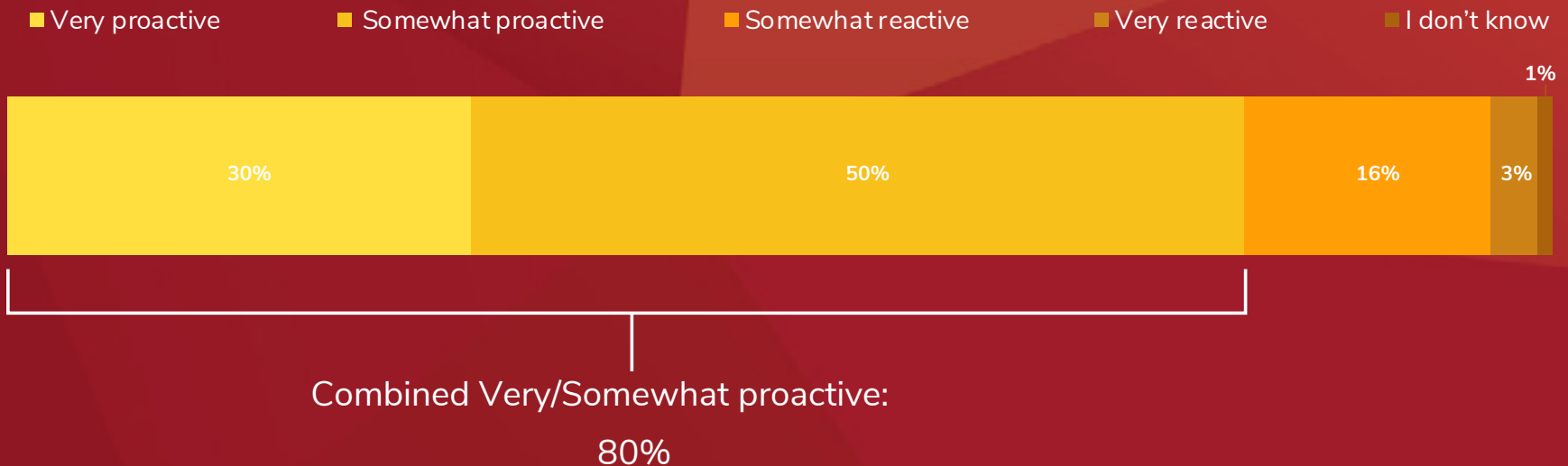


ATTITUDES TOWARDS TECHNOLOGY IN EDUCATION

Considering workload realities, the strong emphasis on achievement and results, and budgetary restrictions, it is easy to imagine why edtech in the classroom may be difficult for teachers to use and for administrators to support. However, educational professionals remain positive about the benefits of edtech and aspire to adopt more and more technology in the classroom.

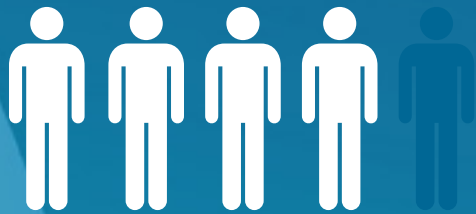
80% of administrators believe their school/district is quick to recognize the education benefits of technology.

In your opinion, how proactive is your school/district when it comes to realizing educational benefits through technology? — (Administrators)



THE DIFFERENCES IN PRIORITIZATION OF TECHNOLOGY

There are considerable discrepancies between teachers' and administrators' priorities when it comes to technology.



FOUR IN 10 TEACHERS IDENTIFY KEY PRIORITIES IN THEIR DISTRICTS AS:

44% “delivering educational benefits through technology”



40% “updating technology”

A smaller proportion of administrators cite these as priorities and cite other institutional needs such as “reducing the achievement gap,” “improving attendance,” and “creative learning experiences” as being higher priorities.

THE DIFFERENCES IN PRIORITIZATION OF TECHNOLOGY

THE DISPARITIES BETWEEN RESOURCES AND WORKLOAD ARE AT THE FOREFRONT OF TEACHERS' MINDS.

While only 20% of teachers believe that increasing the level of teaching support is a key priority for their school/district in the 2019 year, nearly twice that many (39%) believe that it should be a priority — outranking all other responses.

“Training must be ongoing...and there must be a high degree of teacher buy-in for training to be most effective. Training should be collaborative in nature and should incorporate choice.”

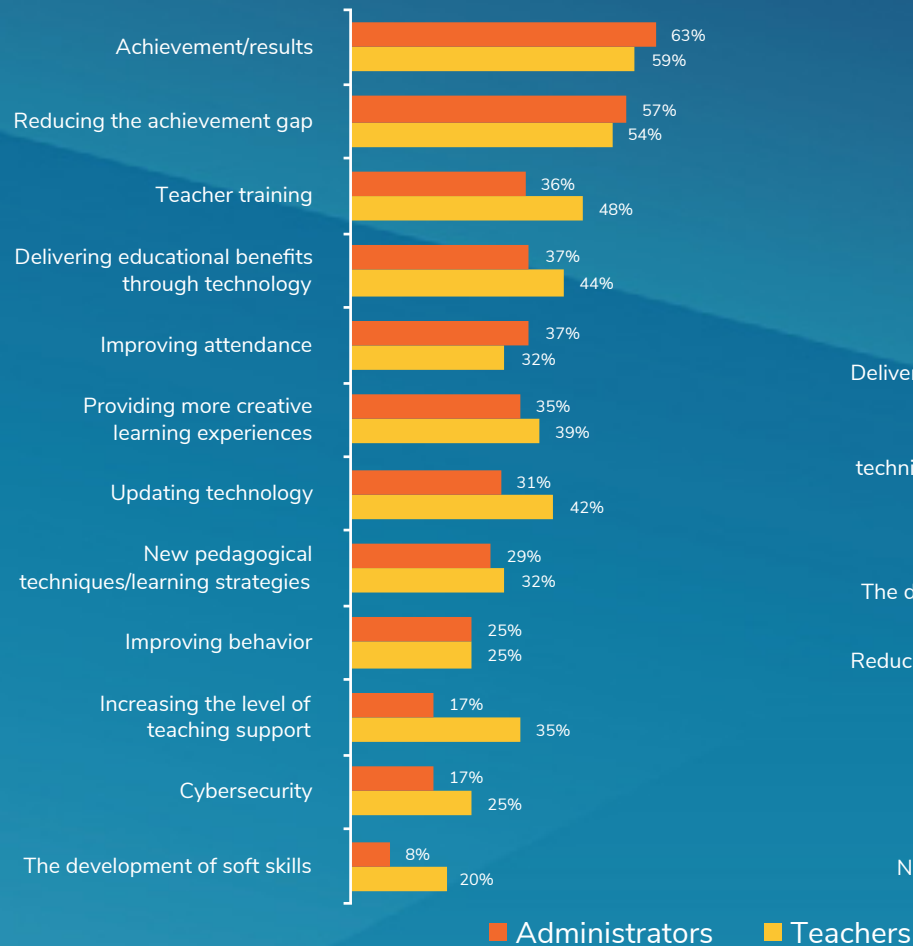
— TEACHER



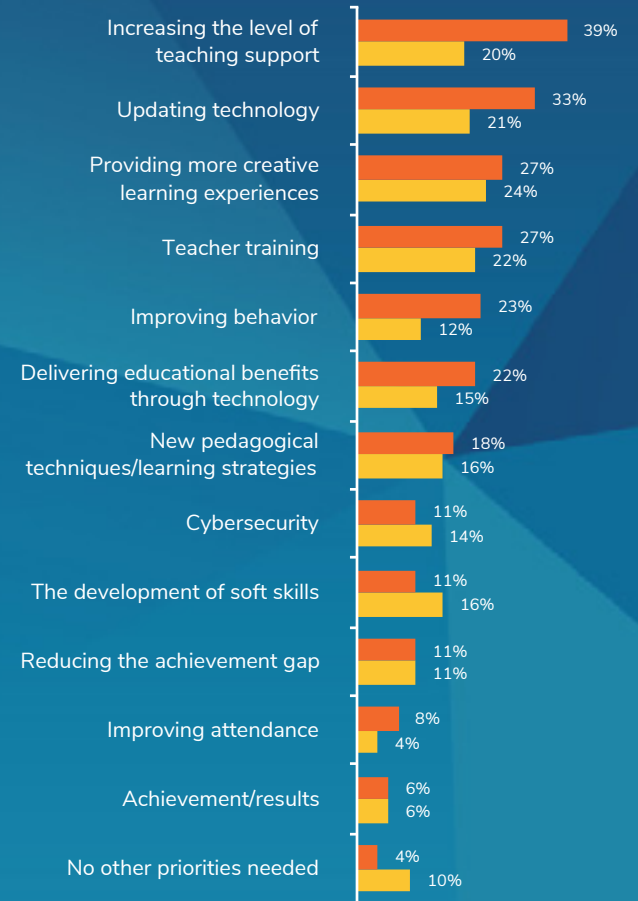
THE DIFFERENCES IN PRIORITIZATION OF TECHNOLOGY

While teachers and administrators cite achievement as the top priority, teachers and administrators alike feel increasing teacher support and updating technology should also be priorities.

What does your school/district identify as key priorities for 2019?



Is there anything else that should be a key priority at your school/district in 2019?



In contrast to the lower proportion of administrators who identified technology as a key priority for their school or district, a much higher proportion (78%) identified it as a priority in their school or district's strategy.

HOW TECHNOLOGY ENHANCES EDUCATIONAL RESULTS

When asked to indicate the specific ways districts are prioritizing technology, administrators' responses demonstrate the broad reach of edtech.

THE TOP USAGE OF TECHNOLOGY IS TO BOOST ENGAGEMENT IN THE CLASSROOM AND IN SCHOOLS, WITH 67% OF ADMINISTRATORS IDENTIFYING THAT AS A PRIORITY.



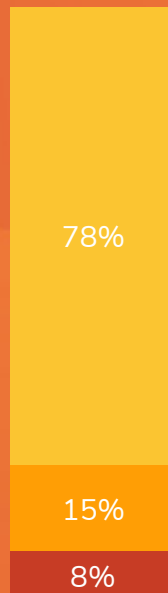
Smaller proportions indicated that the driver of usage is around IT infrastructure and security issues, such as “protecting student data” and “tackling common infrastructure issues” (26% and 24%, respectively).

HOW TECHNOLOGY ENHANCES EDUCATIONAL RESULTS

Technology is a clear priority for schools and districts.
Two in three administrators indicated it is used to boost engagement.

Is technology identified as a priority in your school's/district's 2019 strategy?
— (Administrators)

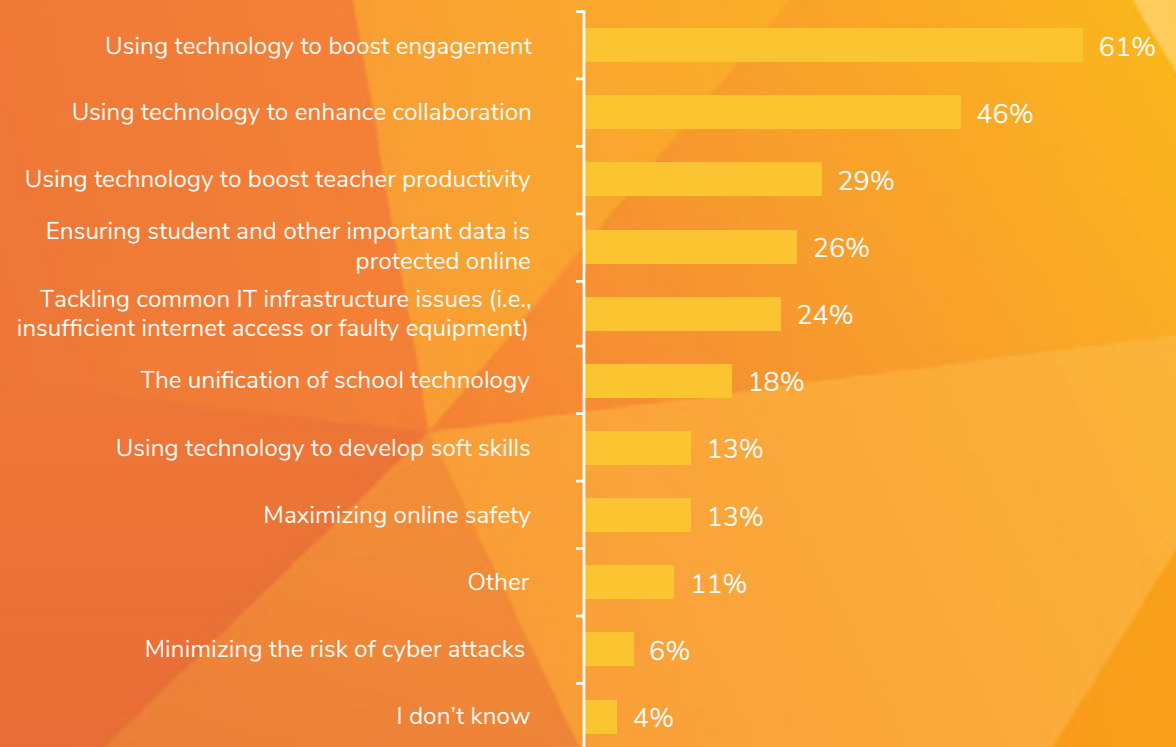
■ Yes ■ No ■ I don't know



*Asked only among those who said "Yes" or "I don't know"

What does your school/district identify as a priority when it comes to technology?*

— (Administrators)



HOW TECHNOLOGY ENHANCES EDUCATIONAL RESULTS

While policies and infrastructure are certainly important, teachers tend to prioritize technology more for its real-world and hands-on impact in the classroom. From a teacher perspective, the data shows consistent acknowledgment of technology's role in increasing student engagement — and teachers are reporting a growing comfort with technology in the classroom.



Three in four teachers (72%) believe that because technology is familiar to students, utilizing it in the classroom is a great way to keep them engaged.



The majority of teachers believe technology increases student attention and interactivity (84%) and improves engagement (76%).



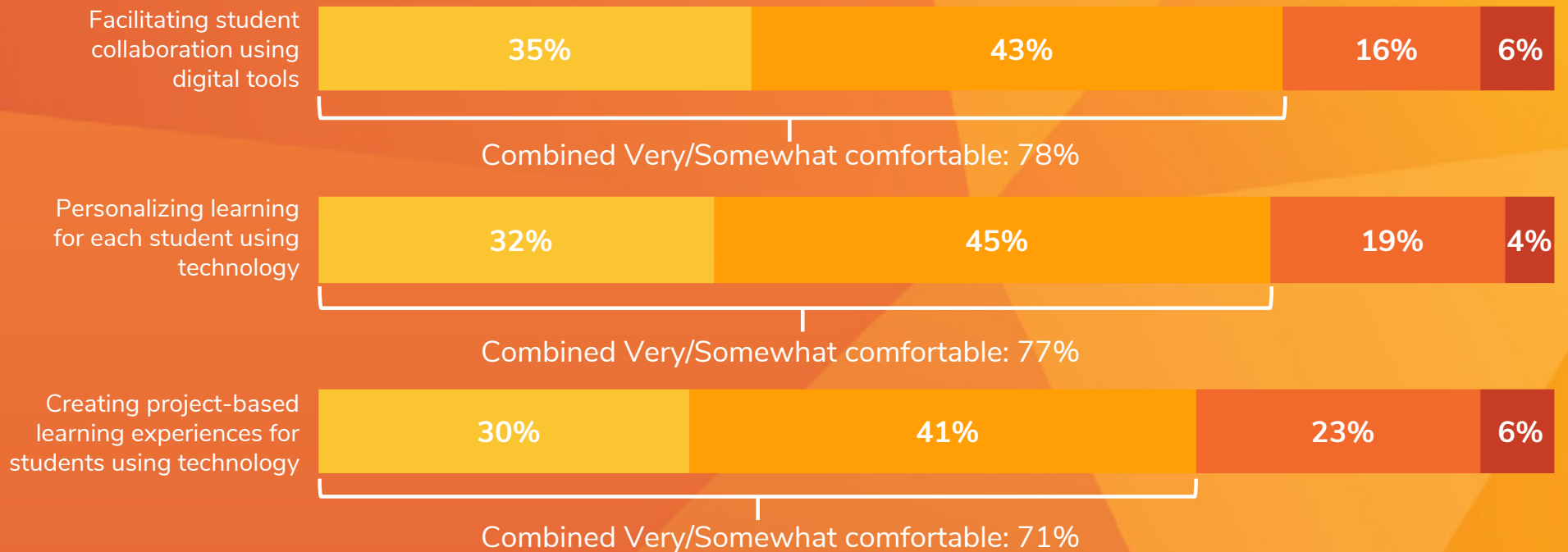
Teachers report high levels of comfort using technology in a variety of ways, from facilitating collaboration and developing personalized learning, to implementing new project-based experiences for students.

HOW TECHNOLOGY ENHANCES EDUCATIONAL RESULTS

Teachers are very comfortable using technology to personalize and enhance the teaching experience.

How comfortable do you feel doing each of the following? — (Teachers)

Very Comfortable Somewhat Comfortable Not Very Comfortable Not Comfortable at all



BARRIERS TO SUCCESS IN EDTECH

While teachers and administrators both seem to prioritize the utilization of technology in their school or district's strategies, more needs to be done to support teachers in implementing edtech in the classroom and making technology a bigger part of learning and achievement. The survey results identified some key barriers to success, from the basic workings of technology to training and collaboration with their peers. Specifically, the survey revealed:

31%

of teachers and administrators believe that a lack of appropriate or working technology always or often prevents them from successfully integrating edtech in their classroom. Using technology to tackle common teaching issues is not a seamless process.

48%

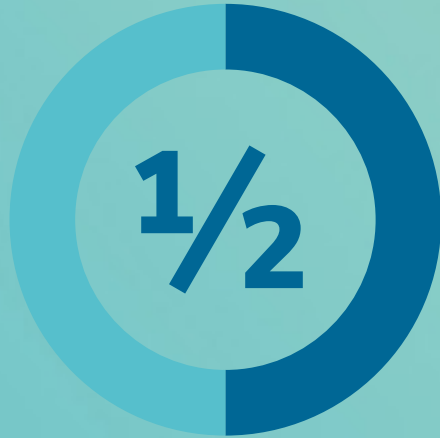
of teachers and 39% of administrators indicated that resources for edtech are available at their school but that they are not trained or provided with learning materials. A lack of edtech training and learning resources presents another challenge.

58%

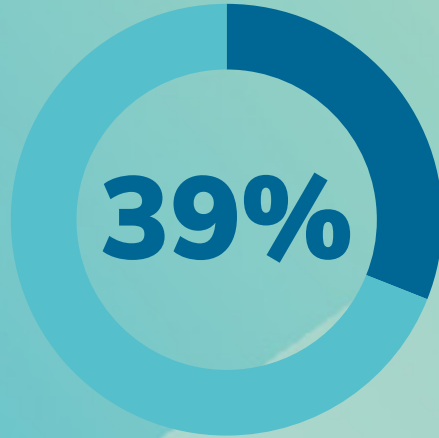
of teachers believe they need collaborative planning time with peers in order to more effectively implement new teaching and learning innovations in the classroom.

BARRIERS TO SUCCESS IN EDTECH

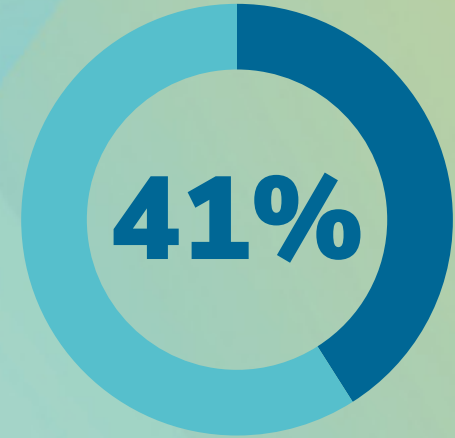
Training, budget and lack of teacher involvement are roadblocks to edtech success.



While nearly one-half of administrators report they have adequate training and support for edtech in their schools and districts.



39% say staff are not trained or provided with adequate learning opportunities.

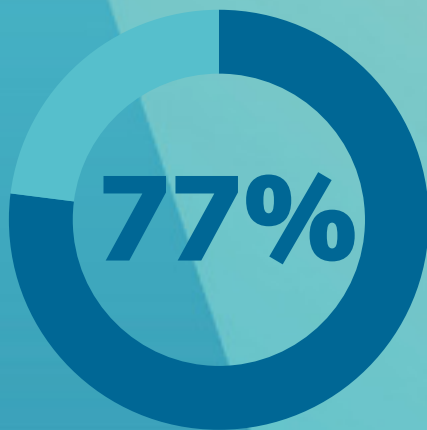
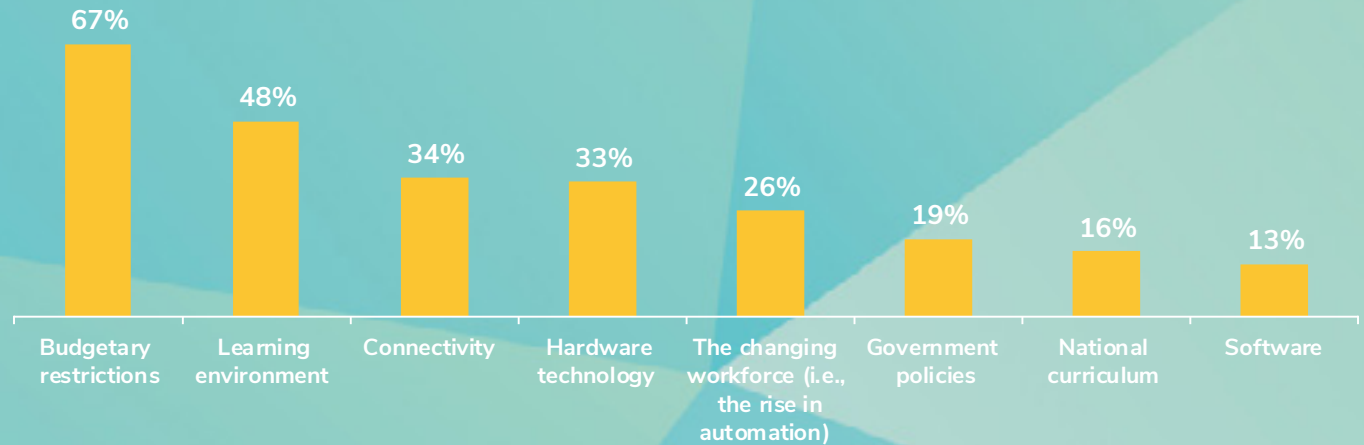


Many administrators (41%) say that budgetary issues and other priorities are the main reasons there are not more teacher training resources for edtech in their districts.

BARRIERS TO SUCCESS IN EDTECH

Beyond technology, 67% of administrators believe that budgetary restrictions will have the biggest impact on student education in 2019 and beyond. This includes challenges around connectivity and hardware/technology in districts.

What overall changes do you think will impact student education in 2019 and beyond? — (Administrators)



Based on the survey findings, many teachers report they are not involved in making decisions related to their school's/district's budget — in fact, more than three-quarters (77%) say they are not at all/not that involved in the overall decision-making process.

WHAT THE FUTURE HOLDS FOR EDTECH

Findings from the survey also point to the types of technologies teachers most use today. The five most commonly used classroom technologies, include:

86%

INTERACTIVE TECHNOLOGY*

66%

PRINTERS



53%

LAPTOPS

46%

DESKTOP COMPUTERS

36%

TABLETS/IPADS

WHAT THE FUTURE HOLDS FOR EDTECH

Interestingly, as teachers think ahead to a future filled with technology, the technologies they see as having the most growth potential in the classroom are also ones that are near the bottom of current usage rankings.

THESE ARE THE TOP FIVE EDTECH TOOLS WHERE TEACHERS REPORT THE LARGEST GAP BETWEEN CURRENT USAGE AND GROWTH OVER THE NEXT FIVE YEARS:

1

**CLOUD-BASED
LESSON DELIVERY:**

Only 14% currently use, but 53% believe this will see the biggest growth

2

**VIRTUAL LEARNING
ENVIRONMENT:**

Only 4% currently use, but 53% believe this will see the biggest growth

3

**VIRTUAL REALITY
DEVICES:**

Only 2% currently use, but 35% believe this will see the biggest growth

4

**HANDHELD
MOBILE DEVICES:**

Only 8% currently use, but 31% believe this will see the biggest growth

5

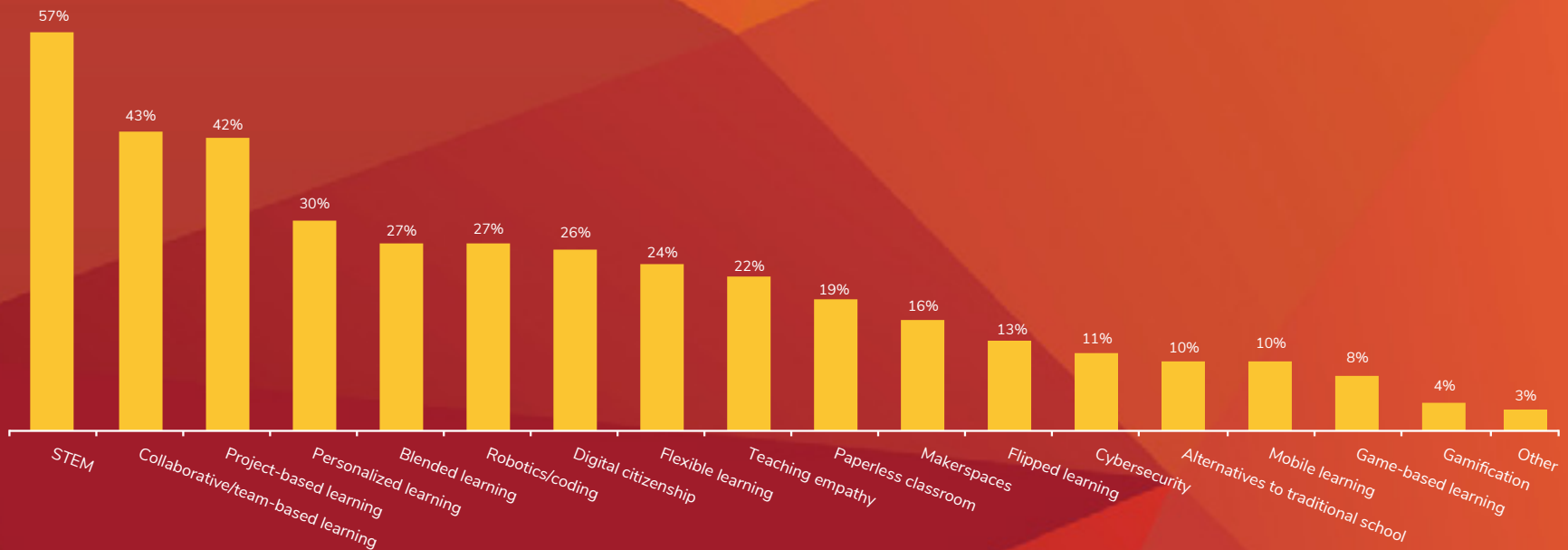
3D PRINTERS:

Only 4% currently use, but 31% believe this will see the biggest growth

WHAT THE FUTURE HOLDS FOR EDTECH

When it comes to trending initiatives, STEM, collaborative learning, and project-based learning are the biggest priorities for schools and districts in 2019.

WHICH OF THE FOLLOWING TRENDING INITIATIVES ARE A PRIORITY FOR YOUR SCHOOL/DISTRICT IN THE 2019 SCHOOL YEAR?



WHAT THE FUTURE HOLDS FOR EDTECH



TEACHERS ARE SIGNIFICANTLY MORE LIKELY THAN ADMINISTRATORS TO SAY ONLINE ASSESSMENTS, INTERACTIVE TECHNOLOGY AND TABLETS WILL HAVE THE BIGGEST GROWTH IN FIVE YEARS.

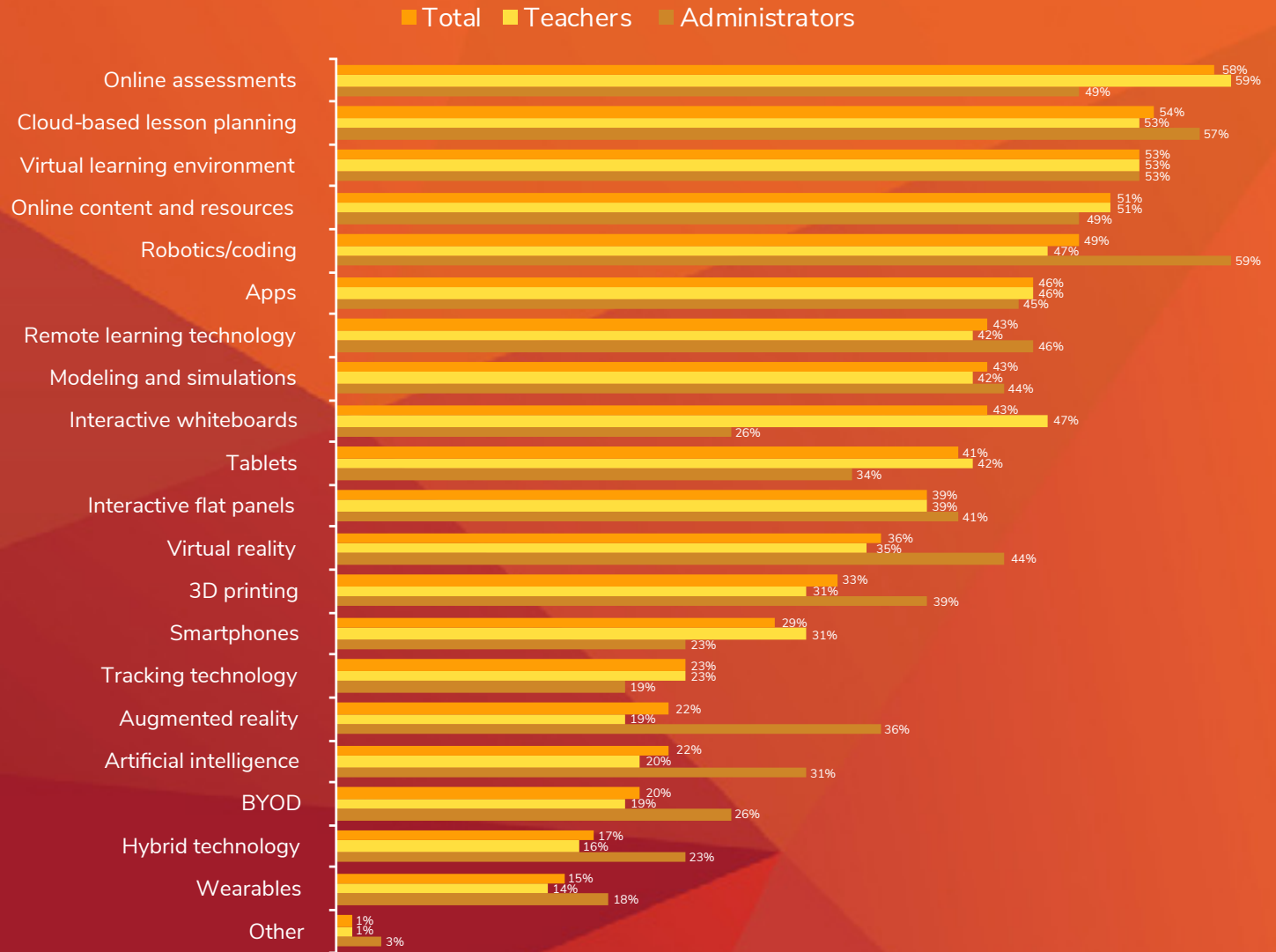


Meanwhile, administrators predict the growth in tech not normally found in all classrooms, such as coding, virtual reality, 3D printing, artificial intelligence, and augmented reality.



WHAT THE FUTURE HOLDS FOR EDTECH

Which technologies do you see making the biggest growth in the next five years?



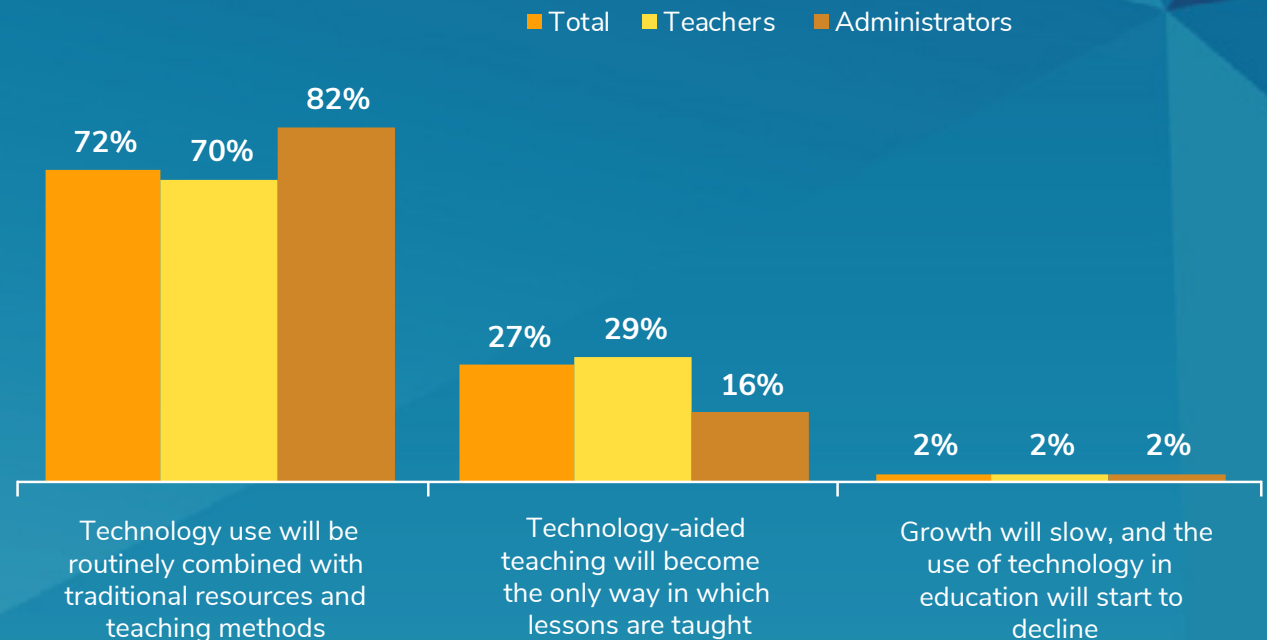
HOW TECHNOLOGY ENHANCES THE CLASSROOM EXPERIENCE

BLENDING TECHNOLOGY AND TRADITIONAL LEARNING WILL ENHANCE THE CLASSROOM EXPERIENCE

An area of strong agreement between teachers and administrators is in the importance of the blending of technology with traditional learning.

The survey shows that the majority of both audiences agree that the way of the future is in routinely combining edtech with traditional resources and teaching methods.

Of the following options, which do you think is the most likely trend we will see over the next 10 years?



CONCLUSIONS

THERE ARE FIVE CLEAR CONCLUSIONS FROM THIS REPORT THAT WILL CONTINUE TO INFORM AND AFFECT EDTECH IN THE K-12 WORLD:

1

Educational professionals do not need to be sold on edtech's advantages; however, legacy infrastructure, organizational inertia, and competing priorities continue to be barriers to the optimization of educational technology in the classroom.

2

Heavy teacher workloads and lack of collaborative time and training will continue to slow adoption of edtech tools. These soft costs and hidden tradeoffs often mask the challenges with deploying and optimizing technology in the classroom.

3

Teachers and administrators see enormous benefits from technology in daily school life, from greater engagement and collaboration to better student outcomes — which are key to additional funding and budget to deliver on strategic priorities for school districts.

4

Regarding edtech budgets, teachers' voices need to be heard and they need a bigger seat at the budget and policy table. Most feel uninvolved despite being closest to student life and outcomes.

5

Tomorrow's edtech trends are already here today, but not broadly used or accessible. Educators predict massive growth in cloud and virtual learning solutions, VR, mobile and 3D printing — all driven by the fact that these solutions best combine traditional learning with advances in technology.

CONCLUSIONS



Findings from Promethean’s new State of Technology survey point to a future of technology adoption and growth in schools and districts across the U.S. Even amidst the challenges, noise, and turbulence in today’s world, technology’s place in education continues to grow. Edtech has come a long way: from an idea to enhance education, to an outcome in classrooms that has a real impact on how students engage with and learn from technology in the classroom.



The implications of this study indicate that edtech is a priority for educational professionals, and that practical adoption of technology happens when current classroom needs are being met or enhanced with technology. Technology for technology’s sake will never take the place of this important blend of old and new ways of doing things in the classroom — but the role and applications of edtech in the classroom will continue to evolve and ultimately improve the experiences and outcomes of students.

CONCLUSIONS

A glimpse into the future

“I see the possibility for teachers to use technology to replicate themselves in the classroom...creating more of a flipped classroom model but within the classroom itself, using technology to either front-load a lesson or provide follow-up to larger groups giving teachers more one-on-one time with students.” – Administrator

“I feel that it’s a big benefit for edtech to continue to be modifiable for each student. It is very difficult to have a class of 20–25 students and do individualized teaching as a human, but with the support and augmentation of tech, we are able to reach, teach, and challenge students in ways we never thought possible.” – Administrator

“The biggest benefits are that students can become actively engaged in lessons, opening up a myriad of ideas and information from which students can gain knowledge and make our jobs more relevant to student interests and their career goals.” – Teacher

“I can offer students experiences they may never have the chance to have otherwise. We can visit the North Pole or the African continent, because we have access to technology. Who wouldn’t want more opportunities available for their students?” – Teacher





WHAT NEXT

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