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Making meaning of

The NewSchools-Gallup Survey of Educator & Student Perceptions of Ed Tech

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The NewSchools-Gallup Survey of Educator & Student Perceptions of Ed Tech

Education technology. Boosters tout it as game changing. Critics slam it as a way of undermining teachers and distracting students. But what do educators and students say?

At NewSchools, we have been investing for 20 years in nonprofits and companies that develop digital learning tools. We've learned a great deal from this sustained experience. Earlier this year, though, we decided it was time to tune the channel more clearly to teacher and student perceptions — to hear their signal through the noise. So, we partnered with Gallup to survey nationally representative samples of teachers and students and decided to add principals and district administrators for good measure. We are excited to share some headlines from this massive project.

In 2015, NewSchools began using a "challenge" model for our ed tech investments. Compared to a more traditional investment approach, challenges help surface ideas in areas where the needs of students and teachers are not yet being well met by existing products. Over four years and seven challenges, we backed 85 companies and nonprofits that provide digital learning tools. Each challenge addressed a different content area, such as science or English language learning, but we did some things consistently across them. We always began by listening to teachers, we always centered our commitment to equity, and we always prioritized ed tech intended to augment high quality instruction rather than replace it.

> **Gallup reached a nationally representative sample of 3,210 teachers, 1,163 principals, 1,219 district administrators and 2,696 students.**

We approached each challenge cycle independently, learning a little more each time. As our understanding deepened, we started to see patterns. But we wanted to know much more. That's why, in the fall of 2018, we partnered with Gallup to conduct a survey to explore the use and perception of ed tech more broadly in the United States PreK-12 public school system. Gallup reached a nationally representative sample of 3,210 teachers, 1,163 principals, 1,219 district administrators and 2,696 students. Deliberate in its scale and rigorous in its approach, this survey offers a nuanced look at how ed tech is and is not serving the needs of the students, teachers, principals and district administrators.

Population	2019 Field Dates	Weighting Targets	Total Number	Margin of Error
Students	January 29 - March 25	Grade, race/ ethnicity, region	2,696	±2.3%
Teachers	January 31 - Febuary 25	Community type, school level, enrollment, % eligible for free and reduced price meals	3,210	±2.1%
Principals	Febuary 4 - March 6	Community type, school level, enrollment, % eligible for free and reduced price meals	1,163	±3.5%
Administrators	Febuary 4 - March 4	Community type, enrollment, region	1,219	±3.2%

FIGURE 1

The findings corroborate some recent reports from other sources as well as some of the trends we've observed in our own market research. They also surprised us with new insights and raised some important questions. Because of the scale and scope of the data, we will continue to grapple with the implications and share our thoughts in the coming months. In the meantime, this piece highlights a few topline themes and ideas from the data that struck us as important.

Four initial themes stand out:

- Ed tech is everywhere, and it's here to stay. But there's a deeper story behind numbers.
- When it comes to selecting ed tech, everyone thinks teachers know best.
- Educators say digital tools work as well or better than non-digital tools for most purposes.
- For most students, it's about better — not necessarily more — ed tech.

We hope **Gallup's full report** and our exploration of these four themes will both confirm and challenge the assumptions that educators, ed tech innovators, and funders hold about digital learning tools in today's classrooms.

02

Ed Tech is everywhere, and it's here to stay. But there's a deeper story behind the numbers.

The NewSchools-Gallup survey showed that most educators are using ed tech and would like to use it even more. In fact, 65% of teachers are using digital learning tools to teach every day, and 87% are using it at least a few days per week. That's a significant jump from just a few years ago. In 2016, a Deloitte study found that only 42% of K-12 teachers said at least one digital device is used daily in classrooms.

> **65% of teachers are using digital learning tools to teach every day, and 87% are using it at least a few days per week.**

Even with such frequent usage, 85% of teachers say they support the increased use of digital learning tools. Similar proportions of teachers, principals and district administrators say they see great value in using ed tech in the future.

The survey gathered perspectives from educators who self-identified as using either traditional or more innovative instructional approaches in their classrooms.

55%
of Teachers

My students generally learn the **same content**, working at the **same pace** together as a class (e.g., a traditional classroom environment).

45%
of Teachers

My students will work on **different content,** at **different paces,** depending on their level (e.g., a non-traditional classroom environment).

FIGURE 2

The fact that more than half of teachers in the survey are in more traditional classrooms and nearly 90% use ed tech at least a few days per week provides a clear snapshot of just how commonplace digital learning tools are in our public schools.

Students' responses bear this out. More than half (57%) said they are using ed tech to learn in school every day, and 89% of students use it at least a few days per week. About seven in 10 students use it for learning outside of school at least a few days per week to get schoolwork done.

> **More than three-quarters of teachers say using ed tech helps improve their effectiveness and efficiency.**

Cheaper devices and better infrastructure have surely aided widespread adoption. **But the NewSchools-Gallup survey data suggests ed tech's staying power is also being driven by its value to educators. More than three-quarters of teachers say using ed tech helps improve their effectiveness and efficiency.** A similar proportion say it can help personalize learning for their students. Here again, students' perceptions of digital learning tools are consistent with educators. Across grade bands, students say it helps them learn things on their own, learn at their own pace and makes school more interesting.

These results suggest that when ed tech is working well for students and teachers, it empowers them to pursue learning objectives that matter to them. But does this mean ed tech has saturated every moment of the classroom experience? Not necessarily. The majority of teachers say their students spend less than half their time in class using ed tech. Even for teachers whose students use ed tech daily, nearly 90% limit student usage to 50% or less of class time. Teachers most often use digital learning tools to help students practice what they've already learned, learn new information, watch informational videos, see things presented or taught, and take tests or quizzes.

In short, ed tech is being used a lot — almost daily, by almost every teacher. But digging a little deeper, there are some interesting differences across different school characteristics.

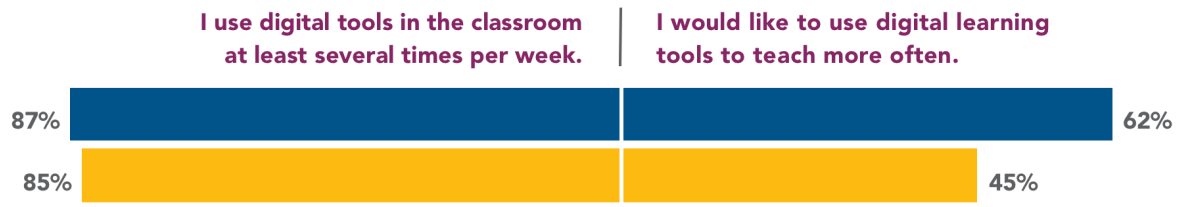
For instance, at NewSchools we've identified some common attributes of schools with more innovative approaches to learning. Teachers who identified as using practices aligned with these attributes were more likely to use ed tech every day. Among those who say their students use digital learning tools **daily** to learn:

- 76% say their school provides individualized support to students based on academic data (vs. 67% of teachers who use ed tech just a few days per week).
- 70% say students at their school are given learning activities aligned with their individual needs, skills, and interests (vs. 59% of teachers who use ed tech just a few days per week).
- 52% say students collaborate with teachers to set personal learning goals and self-assess their progress (vs. 40% of teachers who use ed tech just a few days per week).
- 51% have students use it to track their learning progress (vs. 38% of teachers who use ed tech just a few days per week).

We found another interesting pattern that leaves us wanting to learn more. Based on responses to several questions, teachers surveyed from high-poverty schools say they are using digital learning tools *about as often,* value them *as or more highly,* and would like to use them *more often* than their colleagues in low-poverty schools. In other words, concerns about a "digital divide" for schools that serve low-income students are not clearly borne out in the survey and warrant additional study.

However, the results suggest some differences in how teachers in high- and low-poverty schools are using digital tools. While similar percentages in both groups say they use ed tech for in-class exercises and to help students learn new information, fewer teachers in high-poverty schools say they use ed tech for collaboration, creation and independent research. At NewSchools, we believe all students, regardless of their race or family income, should have rich and engaging learning experiences and opportunities to build agency. Therefore, we want to understand more about possible reasons for this difference. We hope others will dig into the **NewSchools-Gallup survey** findings in all their dimensions, including the equity implications of various response patterns.

Same usage, different demand: Digital tools are ubiquitous in both high- and low-poverty schools, but demand remains greater among teachers in high-poverty schools.



Based on responses to several questions, teachers surveyed from high-poverty schools say they are using digital learning tools about as often, value them as or more highly, and would like to use them more often than their colleagues in low-poverty schools.

High-poverty
Low-poverty

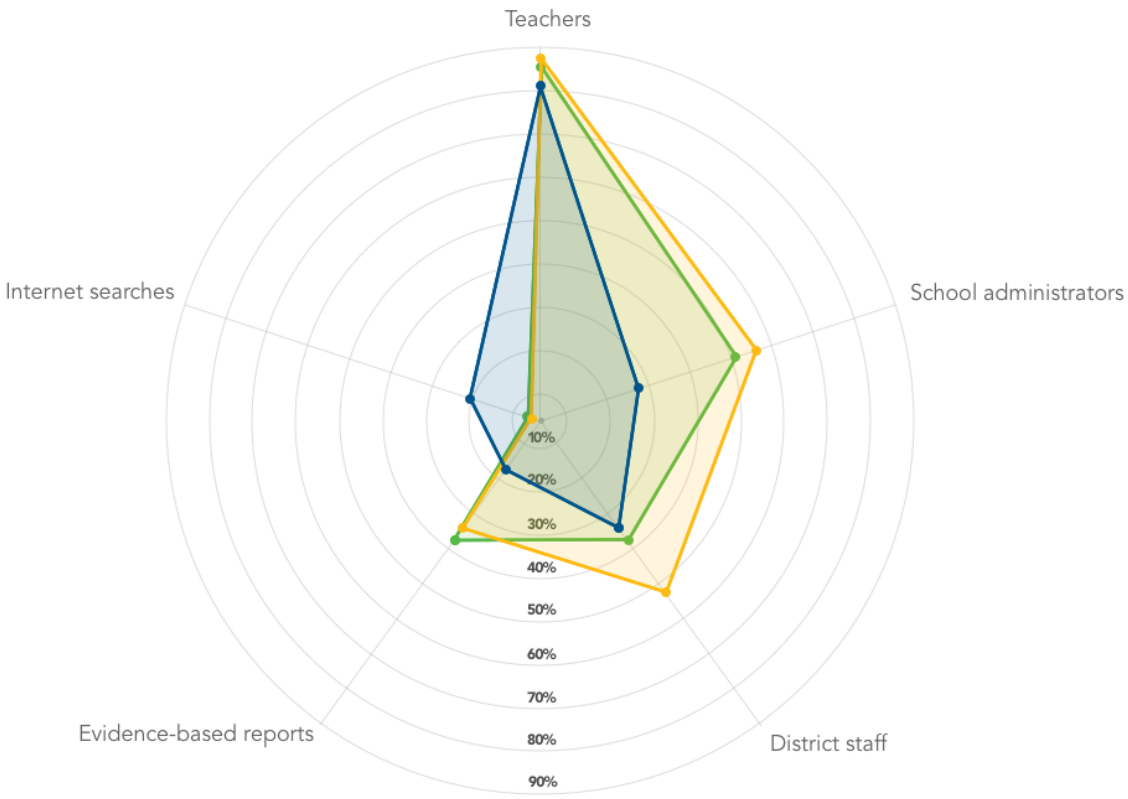
FIGURE 3

03 When it comes to choosing ed tech, everyone says teachers know best.

The availability of digital learning tools has exploded in the last decade. But how to decide which ones to select? For almost everyone, the answer is simple: Ask a teacher.

When asked to select up to three resources they trust most to help decide which tools to use, more than 80% of teachers, principals and district administrators said, "teachers." Students were similarly inclined, ranking teachers above friends and online searches as their most trusted referrals when selecting ed tech. When compared with earlier data about this question, this heavy reliance on teachers becomes even more striking. In the 2014 Teachers Know Best survey, results showed only 47% of teachers relied on the recommendations of other teachers, while more than half preferred online sources. Today, only 39% of teachers cite education websites as one of their top three trusted resources, and only 21% chose internet searches. In a world overflowing with information and analysis, it turns out educators believe the best source of wisdom can be found in another classroom down the hall.

Circle of trust: Educators trust a variety of sources when making decisions about digital classroom tools — but teachers are far and away the most trusted source for everybody.



Teachers, principals, and administrators spread across the circle of trust in different ways. Administrators and principals cast a wider net, more often trusting their district-level peers and evidence-based reports. Teachers cast a more concentrated net, looking primarily to other teachers to make smart decisions about digital learning tools. But across every level of the school district, teachers remain the most trusted source for learning about these tools.

Teachers
Principals
Administrators

FIGURE 4

This is consistent with what we've heard when talking with teachers in preparation for our seven ed tech challenges. Teachers were often skeptical of research papers and case studies, especially those developed and/or paid for by the companies themselves. This might help explain why evidence-based reports and case studies ranked so low on the list of trusted resources for teachers (18% and 6%, respectively).

This doesn't mean teachers don't care about whether digital tools work. Even when concerns about neutrality can be overcome, evidence-based reports can be difficult to decipher and are not usually designed for use in a teacher's particular context. One interesting data point: Teachers who self-identified as early adopters of digital tools were more likely to use evidence-based reports than their later-adopting peers. Given the high degree of trust that teachers have in each other, it's possible that the early word of mouth about digital tools is more influenced by evidence-based reports than study results might suggest.

> **Principals and administrators also prioritize somewhat different criteria for selecting digital tools than teachers.**

Principals and administrators were more reliant on evidence-based reports (34% and 38%, respectively) than teachers. Perhaps their role in making school- and district-wide purchasing decisions increased the value of such reports, but these leaders still say they put more than twice as much value on teachers' views.

Principals and administrators also prioritize somewhat different criteria for selecting digital tools than teachers. Teachers rank core instructional purposes at the top, such as allowing for personalized instruction, providing immediate and actionable data, and engaging students with school and learning. Principals and administrators are more likely to make their selections based on the product's ability to generate outcome data required for reporting and for justifying its purchase. They also place a greater premium on selecting digital learning tools that provide content aligned with state standards and district initiatives.

04 Educators say digital tools work as well or better than non-digital tools for most purposes.

Nearly all teachers, in every type of school, are using ed tech at least a few days a week. Throughout the education system, stakeholders trust their judgment about which tools are best. And though we were struck by the magnitude of these two findings, they are consistent with our intuition and where indicators have been trending for a few years. But we had less insight into teachers' relative perceptions of how ed tech stacks up with the non-digital instructional resources available to them.

> **Across all instructional purposes in our survey, most teachers say digital learning tools are as effective as or more effective than non-digital tools.**

What we found surprised us. Across all instructional purposes in our survey, most teachers say digital learning tools are as effective as or more effective than non-digital tools.

For some purposes, teachers strongly prefer ed tech to analog resources. These include communicating with students, engaging them better, personalizing their instruction and connecting learning to their futures. On the other end of the spectrum, the percentage of teachers who believe ed tech digital tools are less effective than other resources is uniformly low, with "managing the classroom" topping the list at 25%.

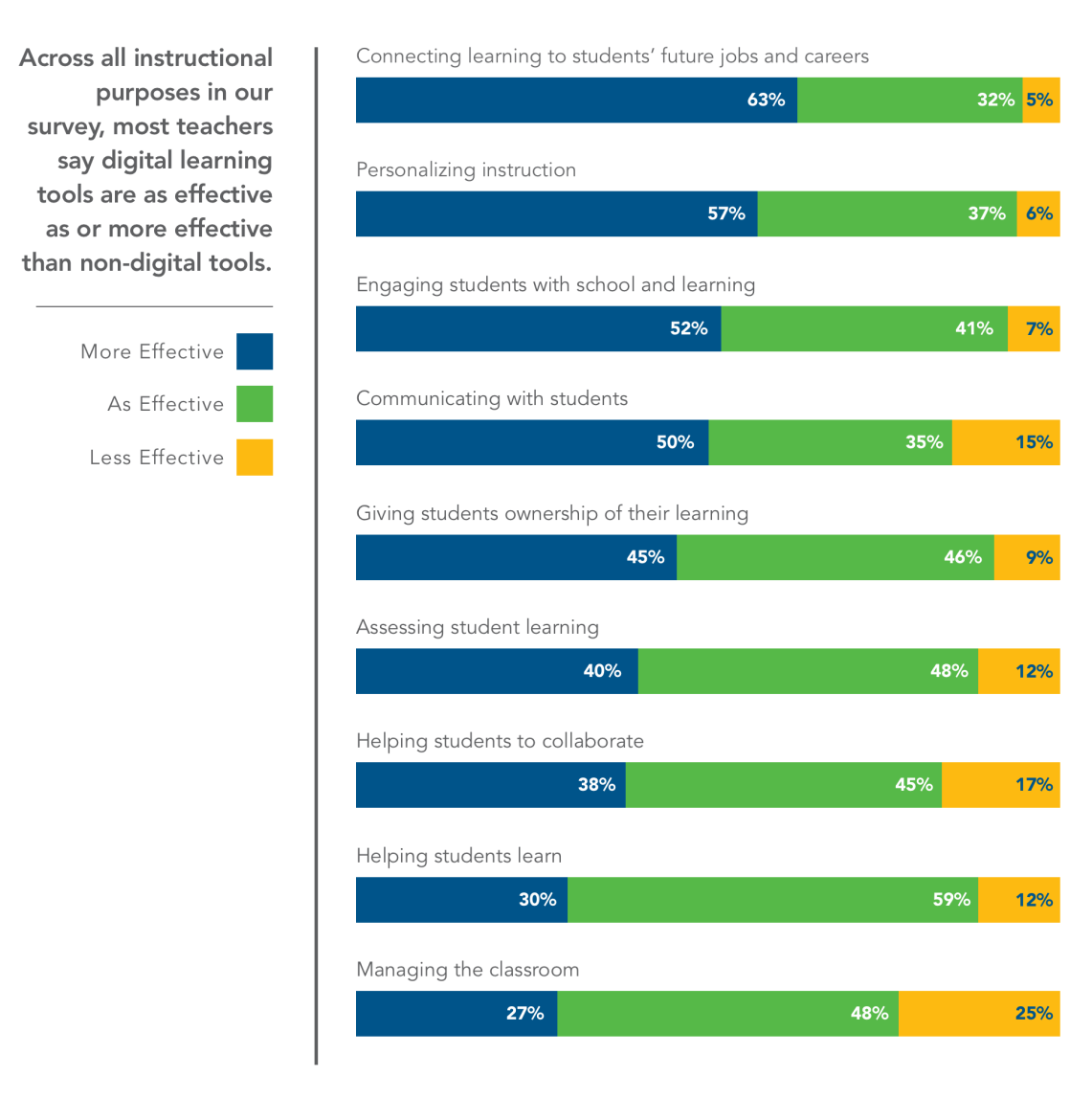


FIGURE 5

As positive as teachers' views of effectiveness are, principals' ratings are consistently more positive, and district administrators' are even more so. In other words, the farther an education professional is from the classroom, the more likely they are to rank digital tools as more effective than other instructional resources.

For example, while 57% of teachers said digital tools are more effective for personalizing instruction, 65% of principals and 73% of district administrators thought so. It could be that those who don't face the day-to-day reality of implementation retain a more aspirational view of what digital tools can do, while teachers wrestle more concretely with the strengths and limitations of various products. Another explanation could be that principals and district leaders see data from ed tech usage across more classrooms and schools than individual teachers and base their ratings on a larger sample of implementations.

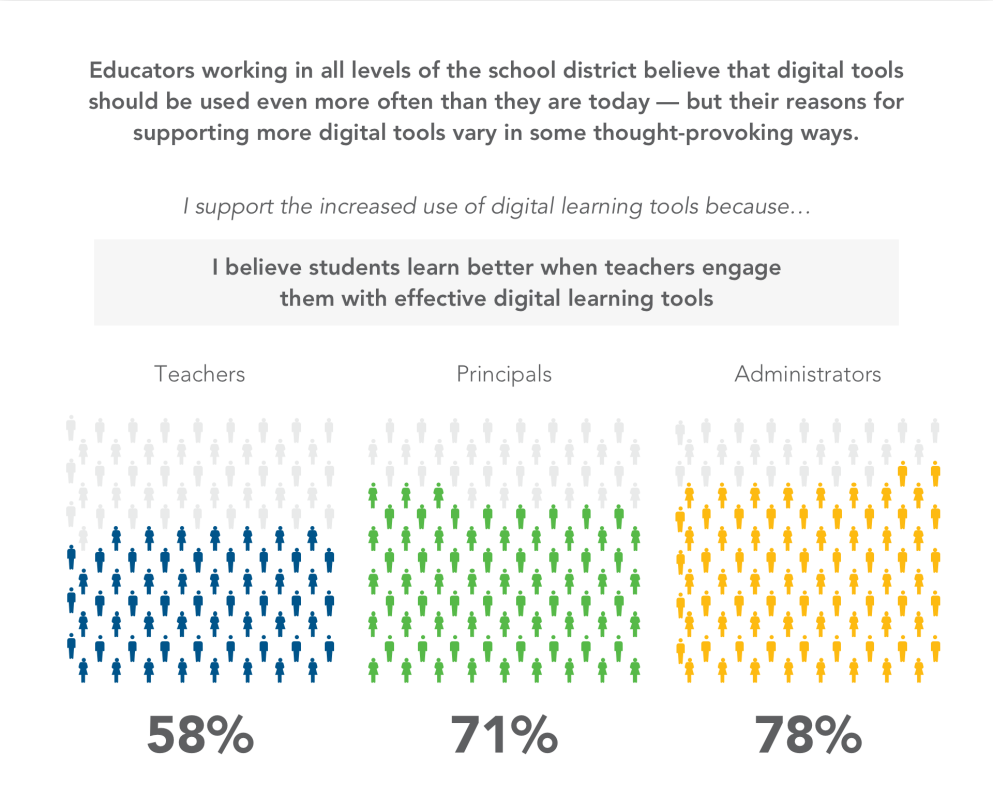


FIGURE 6 | Engage with interactive data **here.**

Whatever the reason, this data raises questions for us. **For instance, how might this mismatch in perceptions affect the professional development and support available when teachers are asked to adopt a new tool by their school or district?** Are there implications for companies and nonprofits that provide digital learning tools, depending on whether their product is most often adopted directly by classroom teachers, brought in at the school level by a principal, or adopted district-wide?

How are teachers rating the effectiveness of ed tech within their particular subjects? Just as in the overall data: Quite well. Across most subjects and grade levels, teachers are generally satisfied with the availability of effective ed tech tools for their instructional needs. More than 70% of teachers reported that there was enough effective ed tech in computer science, reading, English language arts and math. Computer science, in particular, was especially strong in middle and high school, where upward of 80% of teachers were satisfied with the availability of effective ed tech.

> **Teachers at all grade levels noted the lack of effective health and social-emotional learning solutions.**

Even so, there are pockets of unmet demand worthy of attention. Many of these gaps match up with those identified by teachers who provided input on the focus of our ed tech challenges over the years. Special education and English language learning are prime examples. Teachers in these areas were among the most positive about ed tech's ability to support student success. However, relative to their peers in other subjects, they were also less likely to say there are enough effective digital learning tools available (58% and 64%, respectively). The survey also uncovered differences within specific subjects and grade levels. For example, fewer high school teachers than elementary and middle school teachers say there are enough useful math solutions. Fewer elementary teachers than other levels say there are enough effective tools available for science, social studies and computer science. Teachers at all grade levels noted the lack of effective health and social-emotional learning solutions.

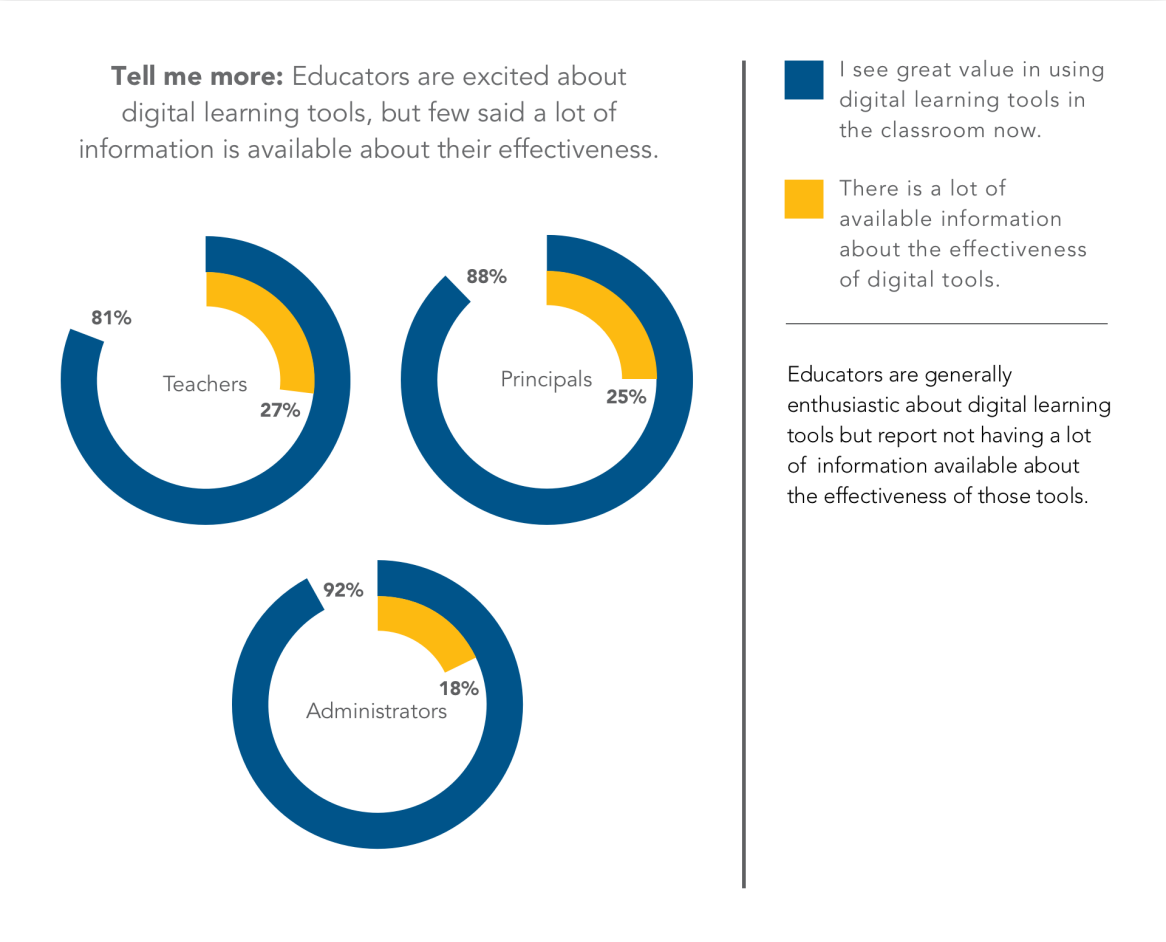


FIGURE 7

In the midst of these high effectiveness ratings, answers to one survey item jumped out as puzzling. Very few teachers, principals and district administrators say they have a lot of information about the effectiveness of digital learning tools. Only about a quarter of teachers and principals said they have a lot of information and only 18% of district administrators say so. About half of educators in all three groups say there is some effectiveness information available, and more than two in 10 say little to no information is available. In other words, wide majorities of educators at all levels of the system say digital tools are as good as or better than non-digital tools, and they want more information about what works. It could be that while there's not enough trusted, independent effectiveness data available, educators see enough learning growth in their own students to rate ed tech positively. This would at least partially explain the apparent discrepancy. Because of this mismatch between the data from these different ways of asking about effectiveness, we'll be working to learn more about the story behind the numbers.

05 For most students, it's about better — not necessarily more — ed tech.

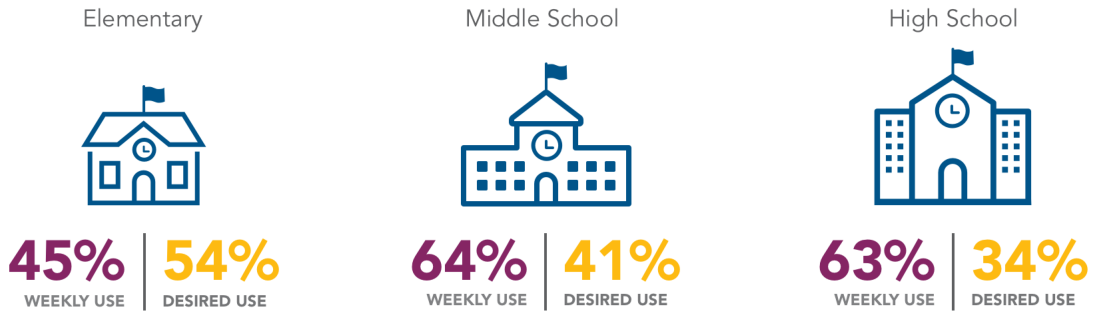
Do students want to use digital learning tools more often at school? The adults in the room certainly think so. Two out of three teachers, principals and district administrators believe students want more ed tech. What do students say? Their views are a bit more nuanced.

Fifty-seven percent of students say they already use digital learning tools every day. Only 29% of these students would like to use them even more. However, of those who say they are currently using ed tech a few days a week or less, 60% want to use it more often. Only 8% of students say they would like to use it less. Just like educators, the vast majority of students are engaging with digital learning tools as an integral part of their schooling and want to continue doing so.

The survey also revealed some differences in perceptions among middle and high school students from different backgrounds. For instance, even though their in-school use is relatively similar, 53% of students from lower-income backgrounds want to use ed tech in school more often, compared to just 38% of their higher-income peers. Students from lower-income backgrounds were less likely to use ed tech for learning outside the school day, which could partially explain their increased desire for more during school hours. Another potential driver is a difference among student perceptions of the value of ed tech. Students from lower-income backgrounds generally saw more value and promise in digital learning tools than Gallup survey averages.

Nearly all elementary school students surveyed are using digital learning tools in class. In fact, 80% of them say that on a typical school day, they spend at least some time with a digital learning tool. Another 16% say they spend a lot of time with them. Only 5% say they spend no time at all on them. These numbers are consistent with our observation earlier in this piece that ed tech is most everywhere.

Finding the sweet spot: Most students are not satisfied with how much time they spend using digital learning tools in class.



Younger students report wanting to use digital learning tools more often than they currently are, and older students report wanting to use them less. This trend suggests an opportunity for educators to better align the way they actually implement digital learning tools with their students' expectations.

I use digital tools in class at least several times a week

I want to use digital tools in class more than I am now

FIGURE 8

In high school, 63% of students say they are using ed tech every day. But on a typical day, the amount of time they're using digital tools varies across their courses. Not surprisingly, 86% of students say they use them about half or all of the time in their computer science classes. But the percentage of students who say they use digital tools for half or all of class falls precipitously from there, with English language arts clocking in next at 33%. Only 25% of students say they use digital tools half or all of the time in math class, about as many who say they use it that much for social-emotional learning. This is a striking statistic given the amount of investment and product development put into creating software and learning applications for math over the last 10 years.

> **Across grade levels, young people say ed tech makes school more interesting, helps them remember what they learned in class and helps them learn things faster.**

Students are largely positive on the benefits of digital learning tools. Across grade levels, young people say ed tech makes school more interesting, helps them remember what they learned in class and helps them learn things faster.

Students also make it clear that ed tech is far from perfect. The survey asked middle and high school students what ed tech could do better. Middle school students wished ed tech could be more fun, more interesting, allow them to play learning games, reward them for good work and allow them to track their learning progress. They wanted, in essence, a more customized and engaging experience.

High school students had different views. **Only 44% of high school students say they can connect what they're learning in school to life outside the classroom, compared to 85% of elementary students.** Instead of games and rewards, they wish ed tech would allow them to save and organize their work better and to interact more effectively with their teachers. These perceptions match our anecdotal sense of how students' engagement with and preferences for ed tech change as they get older.

Most students reported using ed tech to learn new information (69%), practice what they've learned (59%) and take tests or quizzes (59%). Far fewer reported using ed tech to connect with their teachers and fellow students or to manage their own learning. In fact, leveraging ed tech to work with others (39%), communicate with teachers (36%) and track one's learning progress (27%) turn out to be more the exception than the rule. This helps explain the improvements students say they want in ed tech. They expect more from it.

06 More to learn

Technology has dramatically changed the world around us. Almost every activity in our daily lives is touched by technological advancements, from grocery shopping to managing our health, to just paying for parking. It stands to reason that education would also be significantly affected. As an early-stage ed tech investor, it's our business at NewSchools to be curious about who is using digital learning tools, for what purpose, and with what degree of satisfaction. We use that information to help inform our strategy and ensure our investments are doing a good job serving students. We also try to share what we learn as fast as we learn it.

The NewSchools-Gallup survey was intended to provide important insights from educators and students on ed tech, and to potentially illuminate emerging trends and issues that have the power to shape the future of the sector. In addition to the **main report**, in the coming months, we will be making the full dataset publicly available. This resource will include the distribution frequencies for core survey items for the four populations we surveyed, along with the ability to dig into crosstab data for custom analysis. Some of the data we cite in this piece comes from just such analyses. There's so much more to learn from this rich resource and, more importantly, so many ways to use it to serve students and teachers better.

We hope the raw data, our distillation of themes and the larger NewSchools-Gallup report are useful to your work. If you would like to learn more or have an idea about how to advance this effort, we hope you'll reach out to us by contacting Justin Wedell at **jwedell@newschools.org**. We would love to hear from you.