

Education Technology Use in Schools

Student and Educator Perspectives



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The goal of this report is to better understand student and educator perceptions and usage of education technology in schools.

Introduction

The *Education Technology Use in Schools* report reflects the views of students, teachers, principals and district administrators on digital learning tools. Including the perspectives of those most familiar with the impact of these tools in schools can lend important clarity for those seeking to develop new and innovative ways to help teachers teach and help students learn.

Results of the surveys are from a sample of 3,210 Pre-K through 12th grade U.S. public school teachers, 1,163 public school principals, 1,219 district level administrators, and 2,696 public school students in 3rd through 12th grade. NewSchools Venture Fund and Gallup collaborated to develop the surveys. Gallup consultants conducted focus group interviews with students and educators to inform questionnaire development. Rigorous survey methods were used with the aim of securing results that are representative of students and educators in U.S. public schools. Please see the methodology for more information on the study approach.

The study is designed to build understanding of five topics:

- 01** current access to and availability of education technology
- 02** criteria for selecting and purchasing digital learning tools
- 03** perceptions of the value and utility of digital learning tools
- 04** perceptions of the effectiveness of digital learning tools
- 05** extent to which schools employ certain approaches to teaching and learning

The report reflects the results from surveys of students, teachers, principals, and district administrators. The results provide critical information for educators, leaders, developers and entrepreneurs to maximize the effectiveness of digital learning tools that support teaching and learning today. The working definition of digital learning tools used for this study is intentionally broad, allowing respondents to consider ways that education is enhanced and impacted by digital learning tools. Digital learning tools are websites, apps, online tutorials, online games and videos or programs used to teach and support student learning and schoolwork.



In this report, digital learning tools are defined as **websites, apps, online tutorials, online games and videos** or **programs** used to teach and support student learning and schoolwork.



Key Findings

Access and Availability In and Out of School

Digital learning tools are integral to teaching and learning in and out of school.

About two-thirds of teachers (65%) say they use digital learning tools to teach every day; 22% use them a few days a week, and 13% use them once or less per week. More than half of teachers (53%) report that their students use digital learning tools every day to learn. About seven in 10 students report using digital learning tools outside of school for schoolwork at least a few days a week.

Many teachers would like to use digital learning tools more often to teach.

About half of all teachers surveyed (53%) say they would like to use digital learning tools to teach more often; 44% would like to use them about as often as they use them now. About six in 10 teachers who use digital learning tools a few days per week or less say they would like to use them more often to teach.

About four in 10 of students would like to use digital learning tools to learn more often.

More teachers (64%), principals (73%) and administrators (66%) than students (42%) themselves say students would like to use digital learning tools more often to learn.

Criteria for Selecting and Purchasing

Educators select digital learning tools that support student learning and meet learning standards.

Among 15 possible selection criteria, teachers are most likely to say that immediate and actionable data on students' progress (35%), allows for personalized instruction based on students' skill levels (35%), engaging students with school and learning (30%) and easy to use (30%) are the most important factors for selecting digital learning tools for use in their classroom.

Majorities of teachers, principals and administrators say digital learning tools support content that aligns with state standards or district initiatives.

Among rated criteria, teachers, principals and administrators are most positive about the extent to which digital learning tools support content that aligns with state standards or district initiatives. Majorities of each group (53%, 51% and 51%, respectively) say they do this a great deal.

Teachers, principals and administrators say there is some but not a lot of information about the effectiveness of digital learning tools.

Most teachers (84%) say they are able to choose some of their own digital learning tools for use in their class(es), though 27% say there is a lot of information available about the effectiveness of the tools they currently use. Similarly, 25% of principals and 18% of administrators say there is a lot of information available about the effectiveness of the digital learning tools they use.

Value and Utility

Teachers, principals and administrators see great value in using digital learning tools now and in the future.

Teachers (81%), principals (88%) and administrators (92%) strongly agree or agree they see great value in using digital learning tools in the classroom now; slightly more among each group strongly agree or agree they see great value in using them in the future (85%, 93% and 95%, respectively).

Students say digital learning tools are fun and help them to learn things on their own.

Students rated several characteristics of digital learning tools. Seven in 10 older students strongly agree or agree that they help them learn things on their own. Nearly all younger students (96%) say they are fun.

More principals and administrators than teachers support the increased use of digital learning tools.

Most teachers (85%), principals (96%) and administrators (96%) fully or somewhat support the increased use of digital learning tools in their school. More principals (71%) and administrators (75%) surveyed than teachers (53%) fully support increased use of digital learning tools.

Many administrators say their district has stopped using a digital learning tool because it did not improve student learning outcomes.

About two-thirds of administrators (65%) say their district has stopped using a digital learning tool that was piloted or adopted. The most common reason selected for ceasing the use of a digital learning tool is that it did not improve student learning outcomes.

Perceptions of Effectiveness

Most teachers, principals and administrators think digital learning tools are at least as effective as non-digital learning tools.

Across nine objectives studied, educators say digital learning tools are at least as effective as non-digital tools. They are most likely to say digital learning tools are more effective than non-digital tools for connecting learning to students' future jobs and careers.

School district administrators generally have more favorable perceptions of the effectiveness of digital learning tools than teachers and principals.

Majorities of school district administrators say that digital learning tools are more effective than non-digital tools for personalizing instruction (73% versus 65% of principals and 57% of teachers).

Approaches to School and Learning

Teachers who say students in their class work on varied content at different paces are more likely to say students use digital learning tools daily.

More than six in 10 teachers (64%) who say their students work on different content at different paces in class report their students use digital learning tools daily. Among teachers who say their students learn the same content at the same pace as a class, 45% report their students use digital learning tools daily.

Teachers say they know their students personally, and most students feel their teachers care about them.

Most teachers (80%), principals (86%) and administrators (87%) strongly agree or agree teachers know their students personally. About three-quarters (76%) of secondary school students agree or strongly agree teachers care about them; (42%) strongly agree or agree that most of their teachers know their interests.

01

Access and Availability In and Out of School

Section 1: Access and Availability In and Out of School

Students access devices in a variety of ways at school.

Students access digital learning tools using a variety of computing devices. About four in 10 students say they use devices in a library or other room (41%), are given their own device to use (41%) or access devices on carts that are shared across classrooms (38%). About one-third say their classrooms are equipped with devices and 23% say they use their own personal device.

There is some variability across student groups who say they are given their own device to use at school. Black students, students from low-income households, students who attend urban school districts and those in the south are least likely to report that they have their own device to use at school.

More high school students, teachers and principals than their peers in elementary and middle schools say students are given a device of their own that is assigned to them to use.

Students are not often allowed to use their own personal devices at school.

About four in 10 (43%) students say they are never allowed to use their own personal devices in class to learn. About two in 10 students (19%), teachers (22%), principals (20%) and administrators (24%) say students are often or always allowed to use their own personal devices in class to learn.

About one-third of high school students (32%) say they are allowed to use personal devices often or always to learn at school, compared with 15% of middle school students and 7% of elementary school students surveyed.

Figure 1

Which of the below statements describes the availability of devices, such as computers, laptops or tablets, at your school? (% students are given their own device that is theirs to use)

| | |
|-----------------------------|------------|
| All Students | 41% |
| Elementary | 35% |
| Middle | 40% |
| High school | 46% |
| White students | 44% |
| Non-white students | 37% |
| Black students | 32% |
| Hispanic students | 39% |
| \$0 to \$24,999 | 29% |
| \$25,000 to \$49,999 | 42% |
| \$50,000 to \$75,000 | 35% |
| More than \$75,000 | 42% |
| School District Type | |
| Large city | 27% |
| Suburb | 40% |
| Small town | 49% |
| Rural area | 46% |
| Census Region | |
| Northeast | 40% |
| Midwest | 55% |
| South | 35% |
| West | 37% |



Figure 2: Personal Device Use by School Level

(% Always + % Often)

| | |
|----------------------------|-----|
| Elementary (3rd-5th grade) | 7% |
| Middle (6th-8th grade) | 15% |
| High (9th-12th grade) | 32% |

Digital learning tools are integral to teaching and learning in schools.

About two-thirds of teachers (65%) say they use digital learning tools to teach every day; 22% use them a few days a week, and 13% use them once or less per week. More than half of teachers (53%) report that their students use digital learning tools every day to learn. This is similar to the 57% of students who say they use digital learning tools every day at school to learn.

65% of teachers say they use digital learning tools to teach every day.

53% of teachers say students use digital learning tools to learn every day.

57% of students say they use digital learning tools to learn every day.

More high school students (63%) and middle school students (64%) than elementary school students (45%) report using digital learning tools daily.

Figure 3

At school, how often do you use digital learning tools to learn?

| | % Every day |
|----------------------------|-------------|
| All students | 57% |
| Elementary school students | 45% |
| Middle school students | 64% |
| High school students | 63% |

Many teachers would like to use digital learning tools more often to teach.

About half of teachers (53%) surveyed say they would like to use digital learning tools to teach more often; 44% would like to use them about as often as they use them now. Similarly, 55% of principals and 48% of administrators surveyed think teachers would like to use digital learning tools to teach more often. Relatively few teachers (3%), principals (2%) and administrators (2%) say teachers would prefer to use them to teach less often.

More teachers — about six in 10 — who do not use digital learning tools to teach on a daily basis say they would like to use them more often to teach. Though teachers in high-poverty schools are about as likely as their peers teaching in low-poverty schools to say they use digital learning tools to teach every day (66% vs. 62%, respectively), they are more likely to say they would like to use them to teach more often (62% vs. 45%).¹ Additionally, tenured teachers (more than 20 years of teaching experience) are less likely than their less-tenured peers (less than five years of teaching experience) to say they would like to use them more often (47% vs. 58%).

Though **teachers** in high-poverty schools are about as likely as their peers teaching in low-poverty schools to say they use digital learning tools to teach every day (**66%** vs. **62%**, respectively), they are more likely to say they would like to use them to teach more often (**62%** vs. **45%**).

About four in 10 of students say they would like to use digital learning tools to learn more often.

Teachers (64%), administrators (66%) and principals (73%) are more apt than students themselves (42%) to say they think students would prefer to use digital learning tools more often. More teachers in high-poverty schools than those in low-poverty schools say they think students would like to use digital learning tools more often to learn (74% vs. 56%, respectively).

¹ High-poverty schools are those with more than 75% of students eligible for free and reduced-priced lunch. Low-poverty schools have fewer than 25% of eligible students.

Figure 4

Students: Would you like to use digital learning tools to learn more often, less often or about as often as you use them now?

Teachers/Principals/Administrators: Do you think the majority of students in your class/at your school/in your school district would like to use digital learning tools to learn more often, less often or about as often as they use them now?

• % More often • % Less often • % About as often as [I/they] use them now

| Students | Teachers | Principals | Administrators |
|------------|------------|------------|----------------|
| 42% | 64% | 73% | 66% |
| 8% | 4% | 2% | 2% |
| 50% | 32% | 25% | 32% |

Students who report using digital learning tools a few days a week or less (60%) are more likely than every day users (29%) to say they would like to use them more often. Fewer high school students (34%) than elementary school students (54%) would like to use digital learning tools to learn at school more often, which may be because fewer elementary school students report using them daily.

Figure 5

Students: At school, would you like to use digital learning tools ...? (% More often)

| All students* | Every day users | Use a few days a week | Use once or less per week |
|---------------|-----------------|-----------------------|---------------------------|
| 42% | 29% | 60% | 60% |

Over half of high school students use digital learning tools outside of school every day to get schoolwork done.

Fewer students (38%) report using digital learning tools outside of school every day than use them inside of school that often (57%). However, 71% report using them outside of school for schoolwork at least a few days a week.

High school students (55%) are more likely than middle school students (36%) and elementary school students (19%) to say they use digital learning tools to learn outside of school every day. This may be because older students

are more likely to have schoolwork to do at home and have more access to school-issued devices at home. These results underscore the need for older students in particular to have access to digital tools at home.²

About one-third of students surveyed (34%) say they would like to use digital learning tools outside of school more often than they use them now; again, more elementary school students than high school students would like to use them more often (49% vs. 23%, respectively). Non-white students (39%), boys (36%) and low-income students (45%) are most likely to say they would like to use digital learning tools more often outside of school.

Figure 6

Outside of school, would you like to use digital learning tools ...? (% More often)

| | |
|----------------------|------------|
| All students | 34% |
| Elementary | 49% |
| Middle | 33% |
| High school | 23% |
| White students | 28% |
| Non-white students | 39% |
| Black students | 43% |
| Hispanic students | 39% |
| Asian students | 23% |
| Boys | 36% |
| Girls | 31% |
| White boys | 29% |
| White girls | 27% |
| Non-white boys | 42% |
| Non-white girls | 36% |
| \$0 to \$24,999 | 45% |
| \$25,000 to \$49,999 | 43% |
| \$50,000 to \$75,000 | 37% |
| More than \$75,000 | 30% |

² Anderson, Monica and Andrew Perrin, "Nearly one-in-five teens can't always finish their homework because of the digital divide." Accessed online at <https://www.pewresearch.org/fact-tank/2018/10/26/nearly-one-in-five-teens-cant-always-finish-their-homework-because-of-the-digital-divide/>



About half of all students (49%) say they use digital learning tools every day outside of school just for fun. High school students (54%) are most likely to say they use digital learning tools for fun outside of school.

Figure 7: Digital Learning Tool Use Outside of School

| | All students | Elementary (3rd-5th grade) | Middle (6th-8th grade) | High (9th-12th grade) |
|---|--------------|-------------------------------|---------------------------|--------------------------|
| <i>Outside of school, how often do you use digital learning tools to get schoolwork done?</i> | | | | |
| Every day | 38% | 19% | 36% | 55% |
| A few days a week | 33% | 29% | 38% | 32% |
| About once a week | 9% | 14% | 8% | 5% |
| Less than once a week | 12% | 21% | 13% | 6% |
| Never | 7% | 17% | 5% | 2% |
| <i>Outside of school, how often do you use digital learning tools just for fun?</i> | | | | |
| Every day | 49% | 44% | 46% | 54% |
| A few days a week | 20% | 27% | 19% | 15% |
| About once a week | 9% | 11% | 9% | 7% |
| Less than once a week | 12% | 12% | 13% | 11% |
| Never | 11% | 6% | 14% | 12% |

Most younger students spend at least some time using digital learning tools to learn.

Eight in 10 younger students (3rd-5th grade) say they use digital learning tools at least some time in class to learn and 16% say they use digital learning tools a lot of the time. More students (44%) say their teacher spends a lot of time using digital learning tools to teach.

96% of students in 3rd through 5th grade say they use digital learning tools to learn some or a lot of the time in class.

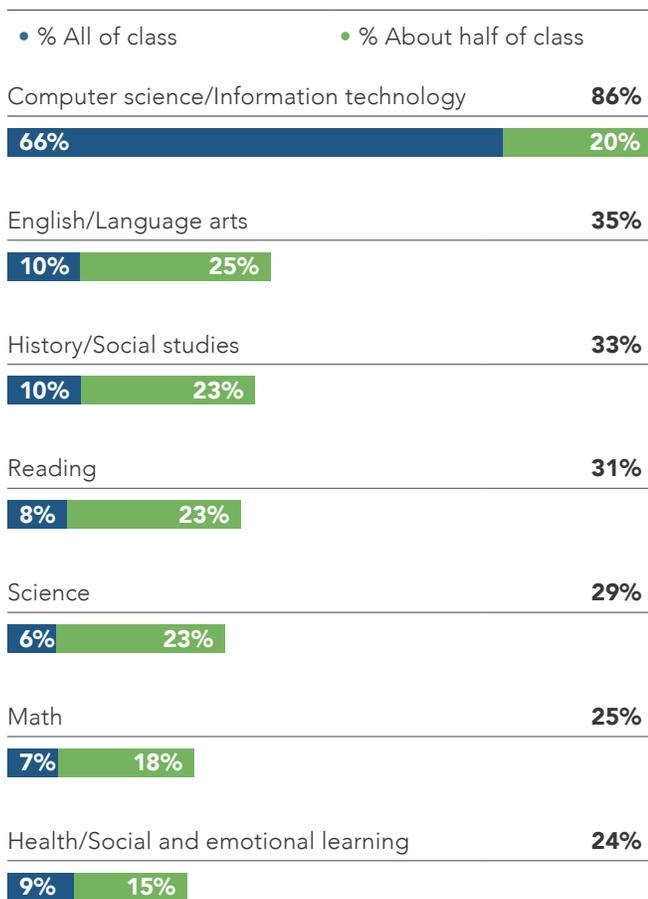
Figure 8: Younger Students (3rd-5th grade): On a typical school day:

| | | |
|--|----------------|------------|
| <i>How much time do you yourself spend using digital learning tools in class to learn?</i> | A lot of time | 16% |
| | Some time | 80% |
| | No time at all | 5% |
| <i>How much time does your teacher spend using digital learning tools in class to teach?</i> | A lot of time | 44% |
| | Some time | 52% |
| | No time at all | 4% |

Across six of seven subject areas surveyed, no more than 35% of secondary school students (6th-12th grade) say they use digital learning tools all of class or about half of class to learn. About two-thirds of computer science students (66%) report they use them all of class, and 15% say they spend less than half of class (12%) or no class time at all (3%). Across subject areas, no more than 39% of students report they spend no class time at all using digital learning tools to learn.

Figure 9: Older Students (6th-12th grade)

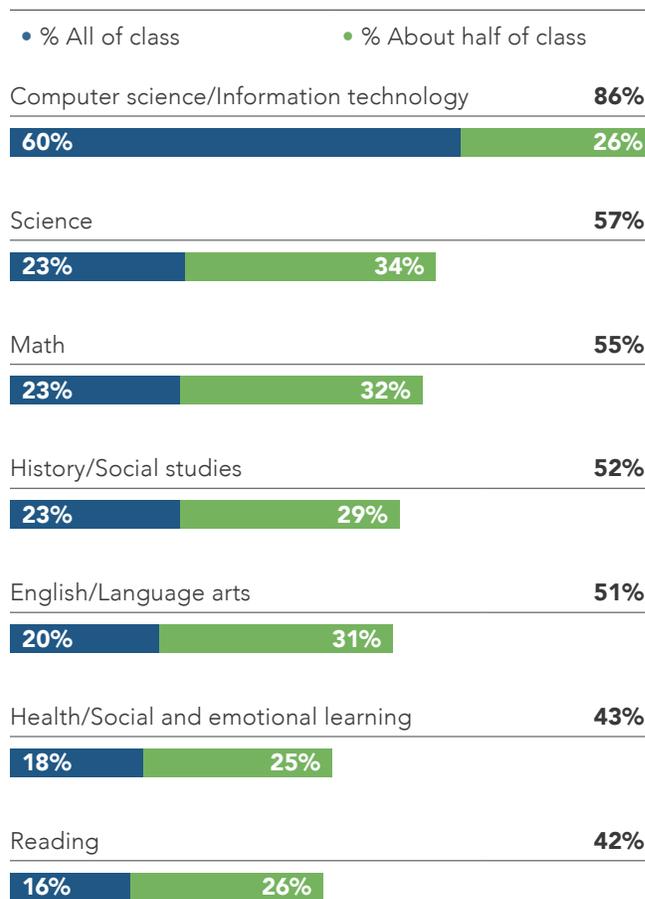
On a typical school day, how much class time do you yourself spend using digital learning tools to learn for each of the following classes? (All of class, About half of class, Less than half of class, No class time at all)



Again, across six of seven subject areas, about two in 10 secondary school students say their teachers use digital learning tools all of class to teach; 60% of computer science students say their teacher uses them to teach for the entire class ; 26% say they spend about half of class, and 15% say they spend less than half of class (10%) or no class time at all (5%). Across subject areas, no more than 23% of students say their teacher spends no class time at all using digital learning tools to teach.

Figure 10: Older Students (6th-12th grade)

On a typical school day, how much class time does your teacher spend using digital learning tools to teach the following classes? (All of class, About half of class, Less than half of class, No class time at all)

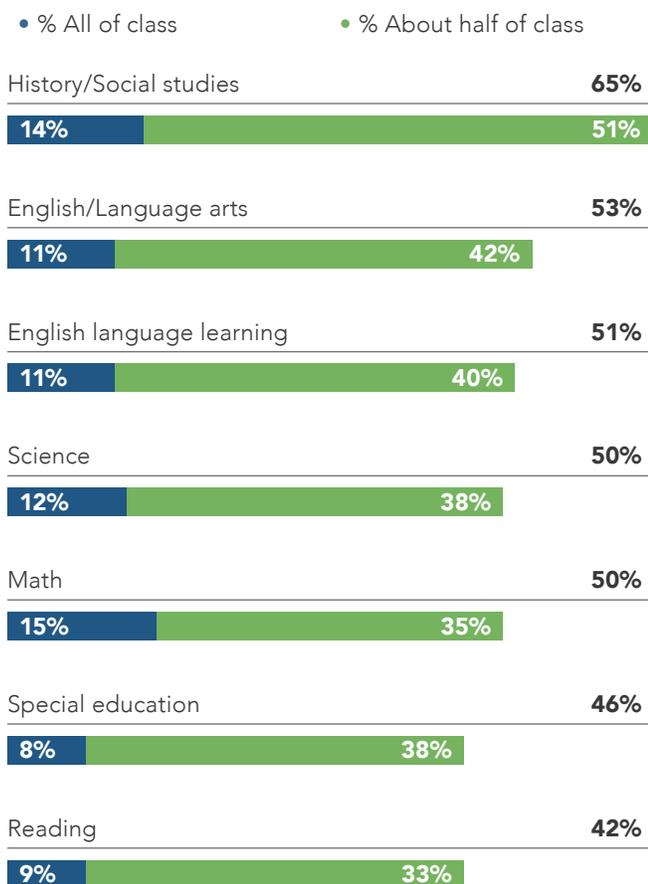


Overall, 12% of teachers surveyed say they spend all of class using digital learning tools to teach their main subject or learning area; another 39% use them about half of class. Similarly, 8% of teachers say their students spend all of class using digital learning tools to learn, and 35% say they use them about half of class in the primary subject area.

History/social studies teachers are most likely to say they use digital learning tools to teach at least half of class (**65%**). Reading teachers are least likely to say they use digital learning tools to teach at least half of class (**42%**).

Figure 11

Teachers: On a typical day, how much class time do you yourself spend using digital learning tools to teach [Subject]? If you teach more than one class for [Subject], think about the class that you use digital learning tools in the most. (All of class, About half of class, Less than half of class, No class time at all)



02

Criteria for Selecting and Purchasing

Section 2: Criteria for Selecting and Purchasing

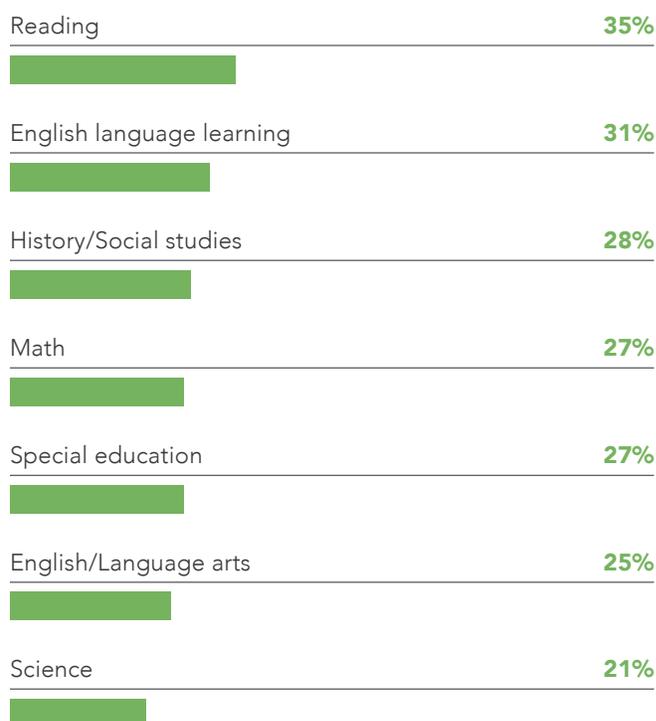
Teachers, principals and administrators say there is some but not a lot of information about the effectiveness of digital learning tools.

Though most teachers (84%) say they are able to choose some of their own digital learning tools for use in their class(es), 27% say they have a lot of information available about the effectiveness of the digital learning tools they currently use. About half (49%) of teachers say they have some information, and 24% say they have a little or no information at all. More teachers who use digital learning tools every day than those who use them only once or less per week say there is a lot of information available about tools they use (30% vs. 17%, respectively). Similarly, 25% of principals and 18% of administrators say there is a lot of evidence-based information available about the effectiveness of the digital learning tools used in their school district.



Figure 12

Teachers: How much information is available about the effectiveness of the digital learning tools you currently use? (% A lot, by subject area)



27% of teachers say a lot of information is available about the effectiveness of the digital learning tools they currently use.

25% of principals say a lot of evidence-based information is available about the effectiveness of the digital learning tools used in their school district.

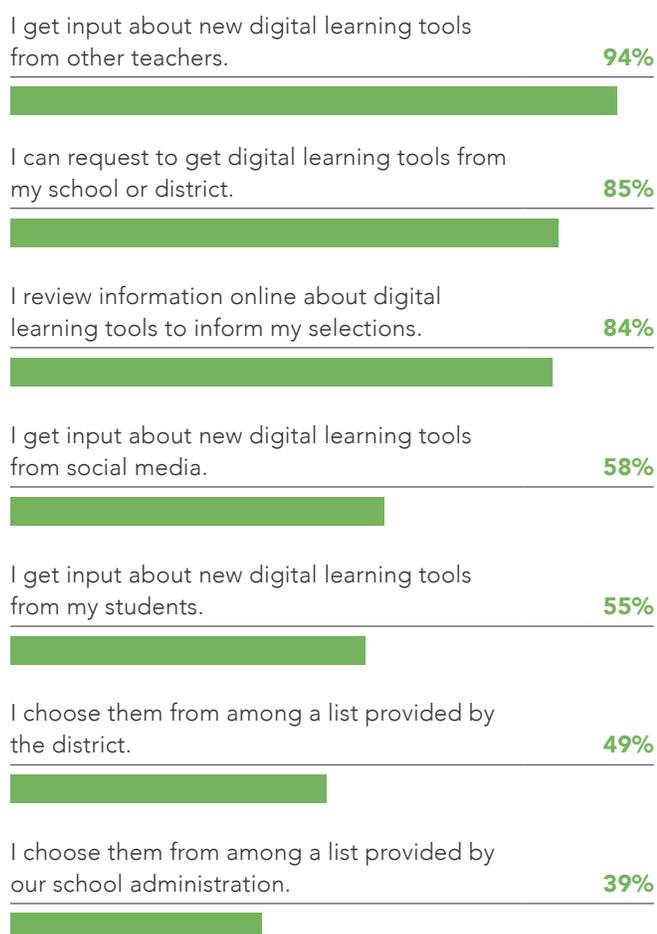
18% of administrators say a lot of evidence-based information is available about the effectiveness of the digital learning tools used in their school district.

Teachers consult a variety of sources to select digital learning tools, but they rely most on their peers for the information they need.

Similar to findings from other studies,³ nearly all teachers (94%) surveyed say they get input about new digital learning tools from other teachers. Most also say they review information about digital learning tools online (84%) and request tools from their district (85%).

Figure 13

Teachers: Which of the following do you do to select digital learning tools for your classroom? (% Yes)



More than eight in 10 teachers (81%), principals (87%) and administrators (84%) say that teachers are the resource they trust most to help them decide what digital learning tools to use. More than half of principals (56%) and administrators (51%) say school administrators are a trusted resource to help decide which tools to use; 28% of teachers say this.

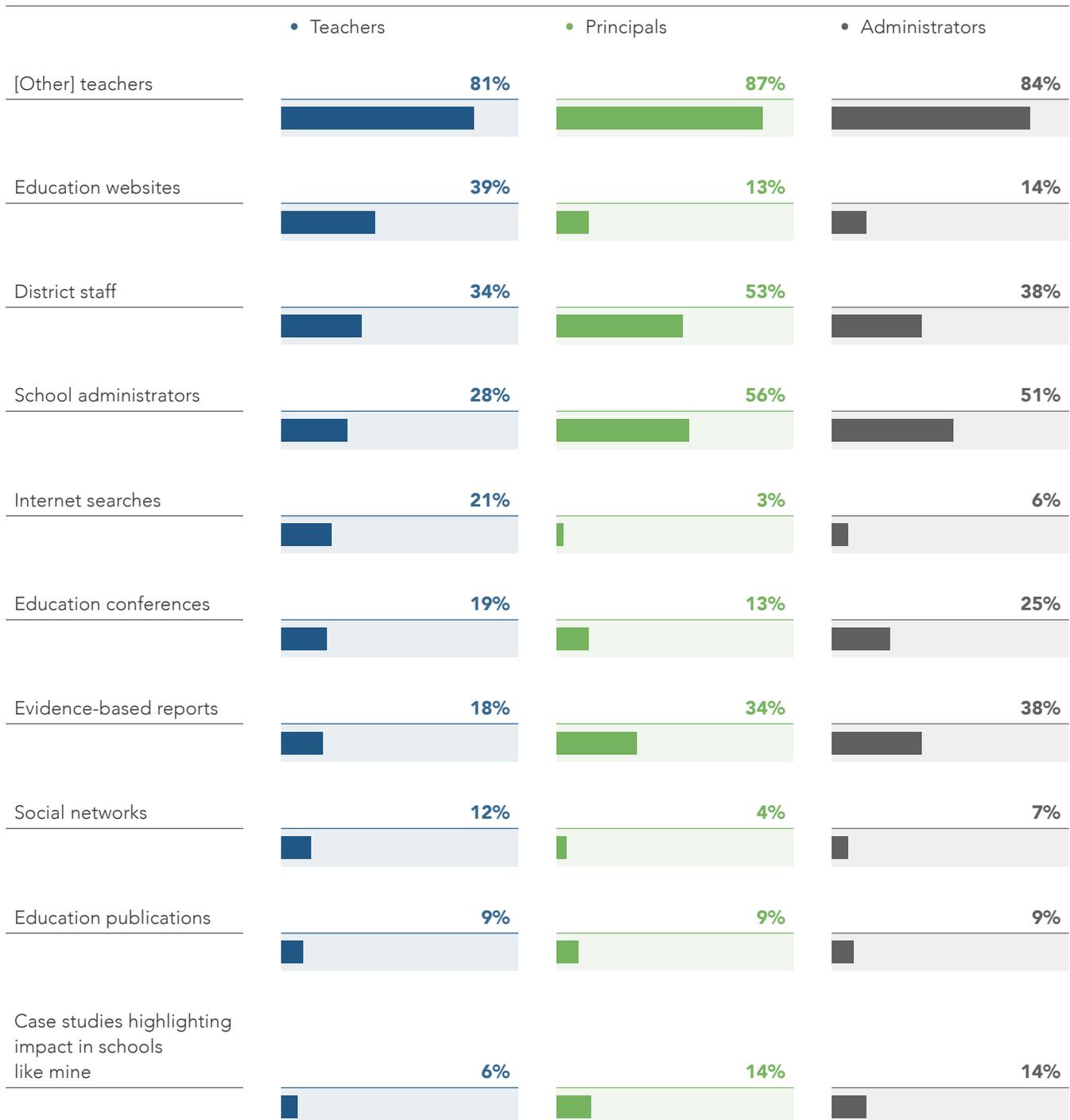
Top Three Most Trusted Resources to Select Digital Learning Tools

- 1) For Teachers: Teachers, Education websites, District staff
- 2) For Principals: Teachers, School administrators, District staff
- 3) For Administrators: Teachers, School administrators, District staff/Evidence-based reports

³ Results from the 2015 Teachers Know Best Survey show teachers choose products recommended by other teachers. Accessed online at <http://edtech-production.herokuapp.com/survey-results/10>

Figure 14

Please select up to *THREE* resources that you trust *MOST* from the list below to [help you] decide what digital learning tools to use in your [class(es)/school/district].





Educators select digital learning tools that support student learning and meet learning standards.

Teachers were asked to select the three factors they think are most important for selecting digital learning tools for use in their classrooms. Among 15 possible selection factors, teachers are most likely to say that immediate and actionable data on students' progress (35%), allows for personalized instruction based on students' skill levels (35%), engages students with school and learning (30%) and easy to use (30%) are the most important criteria for selecting digital learning tools for use in their classroom. Special education teachers (49%) are most likely to indicate that allows for personalized instruction is an important factor for selecting digital learning tools. Elementary and middle school teachers are more likely than high school teachers to say allows for personalized instruction is a very important factor for selection.

Teachers' Top Three Selection Criteria

- 1) Provides immediate and actionable data on students' progress
- 2) Allows for personalized instruction based on students' skill levels
- 3) Engages students with school and learning
Easy to use

Figure 15: Teachers' Top Selection Criteria by Main Subject or Learning Area

English language arts — **38%** provides immediate and actionable data on students' progress

History/Social studies — **34%** engages students with school and learning

Math — **39%** allows for personalized instruction based on students' skill levels

Reading — **44%** allows for personalized instruction based on students' skill levels

Science — **35%** engages students with school and learning

Special education — **49%** allows for personalized instruction based on students' skill levels.

Principals and administrators rated criteria for selecting digital learning tools on a five-point importance scale where 5 means extremely important and 1 means not at all important. Principals are most likely to say provides immediate and actionable data on students' progress (93%) and allows for personalized instruction (92%) are important. Likewise, administrators' top selection criteria are provides immediate and actionable data on students' progress (92%) and allows for personalized instruction (92%).

Figure 16: Teachers' Perceptions of Selection Criteria

| | Most important factor for selecting digital learning tools (select up to 3) | Extent that digital learning tools meet selection criteria (% a great deal) |
|---|---|---|
| Provides immediate and actionable data on students' progress | 35% | 50% |
| Allows for personalized instruction based on students' skill levels | 35% | 46% |
| Easy to use | 30% | 45% |
| Engages students with school and learning | 30% | 44% |
| Cost effective | 26% | 36% |
| Supports content that aligns with state standards or district initiatives | 26% | 53% |
| Improves student learning outcomes | 25% | 38% |
| Supports content that aligns with common core standards | 19% | 49% |
| Empowers students to direct their own learning | 18% | 35% |
| Saves me time | 17% | 40% |
| Assesses students' content mastery | 12% | 40% |
| Helps students collaborate with others | 11% | 32% |
| Integrates data from other sources | 5% | 32% |
| Allows student interaction with teachers | 4% | 31% |
| Enables a high degree of teacher control | 3% | 25% |

Majorities of teachers, principals and administrators say digital learning tools support content that aligns with state standards or district initiatives.

Teachers, principals and administrators also rated the extent to which digital learning tools meet potential selection criteria. Teachers, principals and administrators are most positive about the extent to which digital learning tools support content that aligns with state standards; 53%, 51% and 51%, respectively, say they do this a great deal. This criterion ranks high in importance for selection.

About half of teachers and principals say digital learning tools provide immediate and actionable data on students' progress a great deal (50% and 52%, respectively); 44% of district administrators say this. More teachers than principals and administrators say digital learning tools are easy to use (45%, 37% and 34%, respectively).

Among factors rated, teachers are least likely to say that digital learning tools meet the following selection criteria a great deal: cost effectiveness, helping with student collaboration, integrating data from other sources and enabling a high degree of teacher control. Four in 10 of principals (43%) and 36% of administrators say that digital learning tools enable them to track school-wide academic progress a great deal.

Figure 17

Teachers: To what extent do the digital learning tools you currently use for [Subject] meet the following criteria? Again, if you teach more than one class for [Subject], think about the class that you use digital learning tools in the most.

Principals/Administrators: To what extent do the digital learning tools used at your school/used in your school district meet the following criteria? (% A great deal)

| | Teachers | Principals | Administrators |
|--|----------|------------|----------------|
| Supports content that aligns with state standards and district initiatives | 53% | 51% | 51% |
| Provides immediate and actionable data on students' progress | 50% | 52% | 44% |
| Supports content that aligns with common core standards | 49% | 43% | 38% |
| Allows personalized instruction based on students' skill levels | 46% | 45% | 44% |
| Easy to use | 45% | 37% | 34% |
| Engages students with school and learning | 44% | 39% | 38% |
| Assesses students' content mastery | 40% | 42% | 38% |
| Saves me time | 40% | 34% | 30% |
| Improves student learning outcomes | 38% | 33% | 33% |
| Cost effective | 36% | 33% | 32% |
| Empowers students to direct their own learning | 35% | 30% | 33% |
| Helps students collaborate with others | 32% | 33% | 44% |
| Integrates data from other sources | 32% | 32% | 35% |
| Allows student interaction with teachers | 31% | 31% | 41% |
| Enables a high degree of teacher control | 25% | 24% | 21% |
| Saves teachers' time | N/A | 31% | 26% |
| Allows [me/leaders] to track school-wide academic progress | N/A | 43% | 36% |



Schools and districts use a variety of strategies to purchase digital learning tools.

While a majority of teachers report using both purchased and free digital learning tools, about one in four (27%) report using only free tools in their class(es). More teachers who use digital learning tools once or less per week than those who use them daily say they use only free tools (40% vs. 24%, respectively).

Most principals (77%) say students and teachers use both free and purchased digital learning tools; fewer principals (7%) than teachers (27%) say they use only free tools. Similarly, most administrators (85%) say students and teachers use both purchased and free digital learning tools in their school district; like principals, few administrators (5%) say they use only free tools.

Schools pay for digital learning tools in a variety of ways, but most educators report that the district and the school purchase the digital learning tools they use.

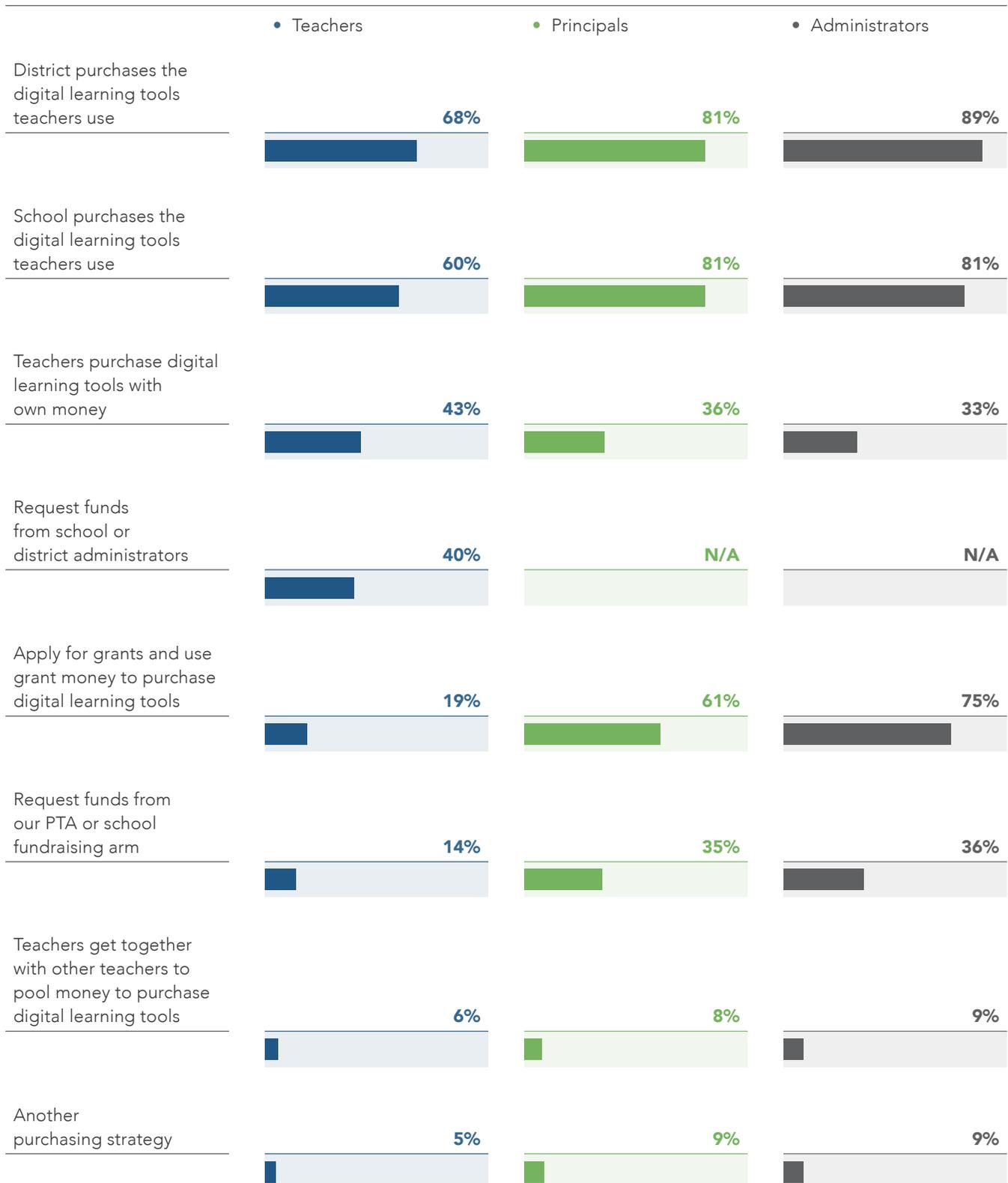
Studies show teachers spend, on average, more than \$479 per year on classroom supplies,⁴ so it is not surprising that more than four in 10 teachers (43%) report purchasing digital learning tools with their own money; more than three in 10 principals (36%) and administrators (33%) say teachers purchase their own tools. Teachers who use tools daily are more likely than those who use them once or less per week to purchase their own tools (46% vs. 28%, respectively). Many principals (61%) and administrators (75%) say they apply for grants to purchase digital learning tools.

More than **four in 10** teachers say they purchase digital learning tools with their own money.

4 Will, Madeline, "The Average Teacher Spends \$479 a Year on Classroom Supplies, National Data Show." *Education Week*. May 2018. Accessed via web: <https://www.edweek.org/ew/articles/2018/05/15/the-average-teacher-spends-479-a-year.html>

Figure 18

Which of the following [do you do to pay for digital learning tools/are ways that your school district pays for digital learning tools]? Select all that apply.





03

Value and Utility

Section 3: Value and Utility

Majorities of teachers, principals and administrators see great value in using digital learning tools now and in the future; administrators are most positive.

Majorities of teachers (81%), principals (88%) and administrators (92%) strongly agree or agree they see great value in using digital learning tools in the classroom now; more among each group strongly agree or agree they see great value in using them in the future (85%, 93% and 95%, respectively). Teachers with more than 20 years' experience (83%) are somewhat less likely than their peers with five or fewer years of teaching (89%) or five and a half to 10 years of teaching (93%) to see great value in using digital learning tools in the future.

Teachers reported their primary subject area — the subject or learning area they consider their specialty or spend the most time teaching. English language learning (89%) teachers were most likely to strongly agree or agree that they see great value in using digital learning tools in the classroom now compared with teachers of other subjects and learning areas, including math (77%), science (79%), English/language arts (82%) and history/social studies (79%). Among all teachers who say they teach computer science or information technology regularly, 91% strongly agree or agree they see great value in using digital learning tools now.

Among teachers surveyed from high-poverty schools, 84% strongly agree or agree they see great value in using digital learning tools now, versus 78% from low-poverty schools who agree. Fewer high school teachers than elementary teachers strongly agree or agree they see great value in using digital learning tools now (78% vs. 84%, respectively).





Perceptions of Digital Learning Tools

Teachers, principals and administrators are generally aligned in their positive perceptions about the ways digital learning tools support teaching and learning:

More than three-quarters of teachers (77%), 76% of principals and 80% of administrators strongly agree or agree **using digital learning tools helps teachers' effectiveness**; about as many from each group strongly agree or agree they help teachers be **more efficient** (78%, 78% and 83%, respectively).

More than three-quarters of teachers (77%) strongly agree or agree **digital learning tools help personalize learning for students**; more principals (86%) and administrators (89%) strongly agree or agree with this.

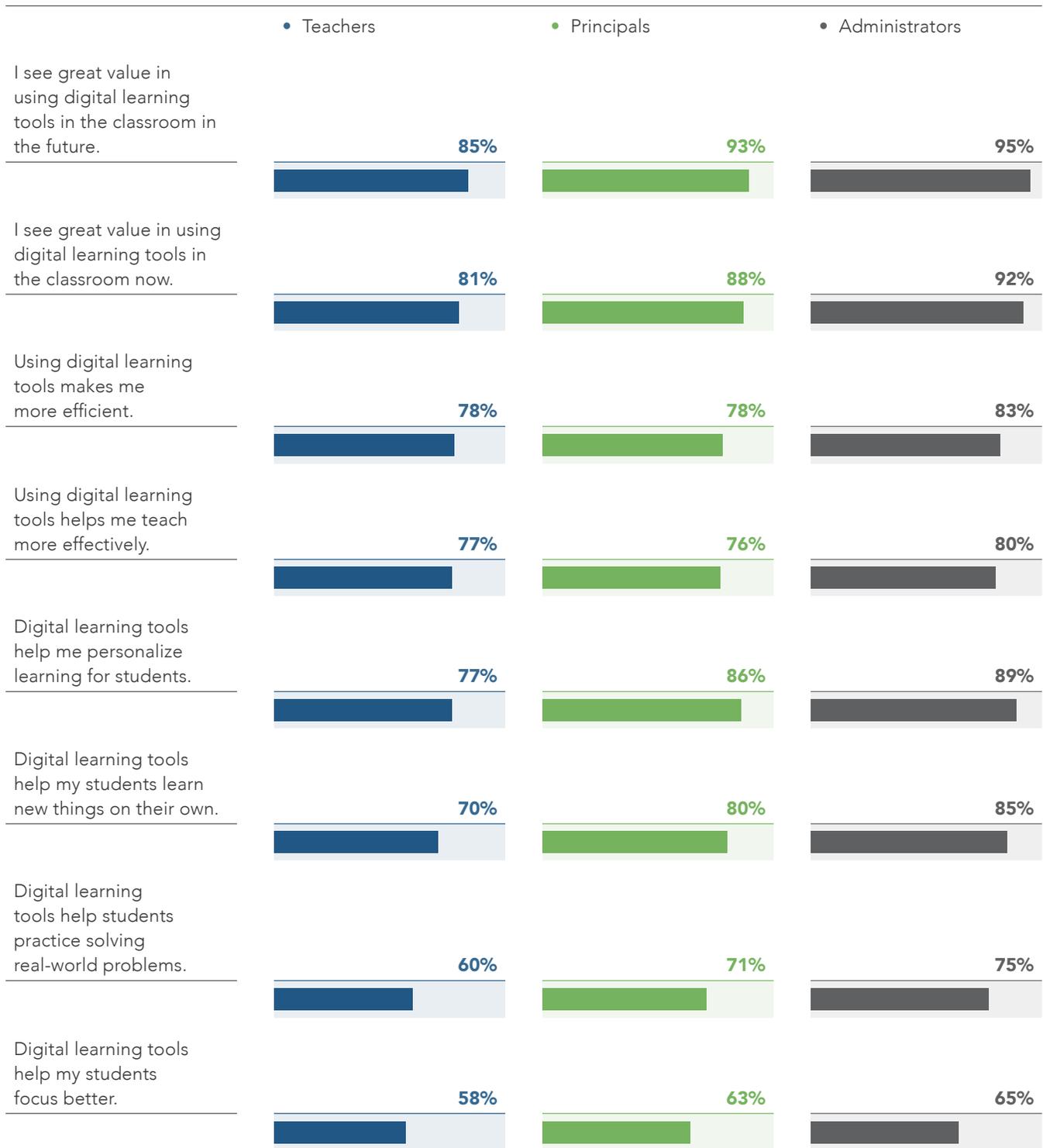
Seven in 10 teachers strongly agree or agree **digital learning tools help students learn new things on their own**; again, more principals (80%) and administrators (85%) strongly agree or agree.

More than half of teachers (58%) and nearly two-thirds of principals (63%) and administrators (65%) strongly agree or agree **digital learning tools help students focus better**. More elementary school teachers than middle or high school teachers strongly agree or agree (69% vs. 57% and 47%, respectively). More teachers in high-poverty schools than low-poverty schools (70% vs. 48%) and more white teachers (73%) than non-white teachers (56%) strongly agree or agree digital learning tools boost focus for students.

Six in 10 teachers, 71% of principals and more administrators (75%) strongly agree or agree that **digital learning tools help students practice solving real-world problems**.

Figure 19

On a five-point scale, where 5 means strongly agree and 1 means strongly disagree, please rate your level of agreement with the following items about digital learning tools. (% Strongly Agree + % Agree)



Note: Item phrasing was adjusted for each survey population.

More than eight in 10 teachers (83%), 91% of principals and 93% of administrators strongly agree or agree **digital learning tools can support instructional strategies** to meet students' learning goals.

Across main subject or learning areas, English language learning teachers (n = 98) were most likely to strongly agree or agree (91%) that **digital learning tools can support instructional strategies to meet students' learning needs**. This includes 63% of English language learning teachers who strongly agree. About eight in 10 special education (81%), math (85%), science (83%), English language arts (83%), history/social studies (81%) and reading (78%) teachers strongly agree or agree.

At least two-thirds of teachers, principals and administrators strongly agree or agree they wish students could use **more digital learning tools to learn outside of class** (67%, 67% and 73%, respectively). Across all grade levels, preschool teachers are least likely to strongly agree (28%) they wish their **students could use more digital learning tools to learn outside of class**.⁵ About six in 10 of teachers and principals (both 61%) strongly agree or agree they wish teachers could use **more digital learning tools in class to teach**. Two-thirds of administrators strongly agree or agree with this. Similarly, about six in 10 teachers and principals say they wish students could use them more in class to learn (59% and 62%, respectively).

More teachers from high-poverty schools than those from low-poverty schools strongly agree or agree they wish their students could use them more to learn in class (67% vs. 53%).

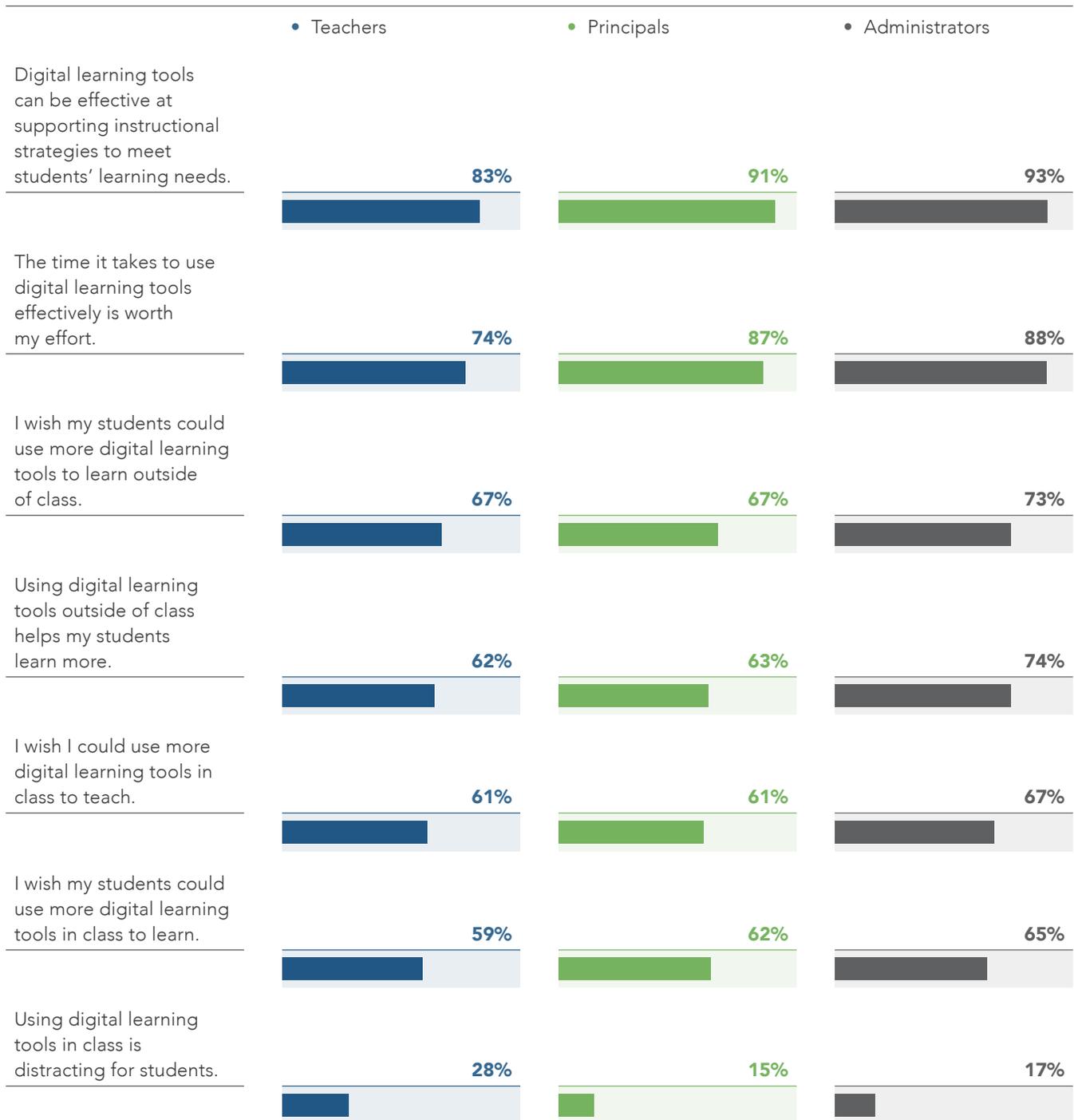
While 74% of teachers strongly agree or agree that **digital learning tools are worth their effort**, more principals (87%) and 88% of administrators strongly agree or agree.

Fewer teachers (62%), principals (63%) and administrators (74%) strongly agree or agree **digital learning tools help students learn more outside of class**. Relatively few educators think digital learning tools are distracting to students (28%, 15% and 17%, respectively).

⁵ Includes all teachers who say they teach preschool.

Figure 20

On a five-point scale, where 5 means strongly agree and 1 means strongly disagree, please rate your level of agreement with the following items about digital learning tools. (% Strongly Agree + % Agree)



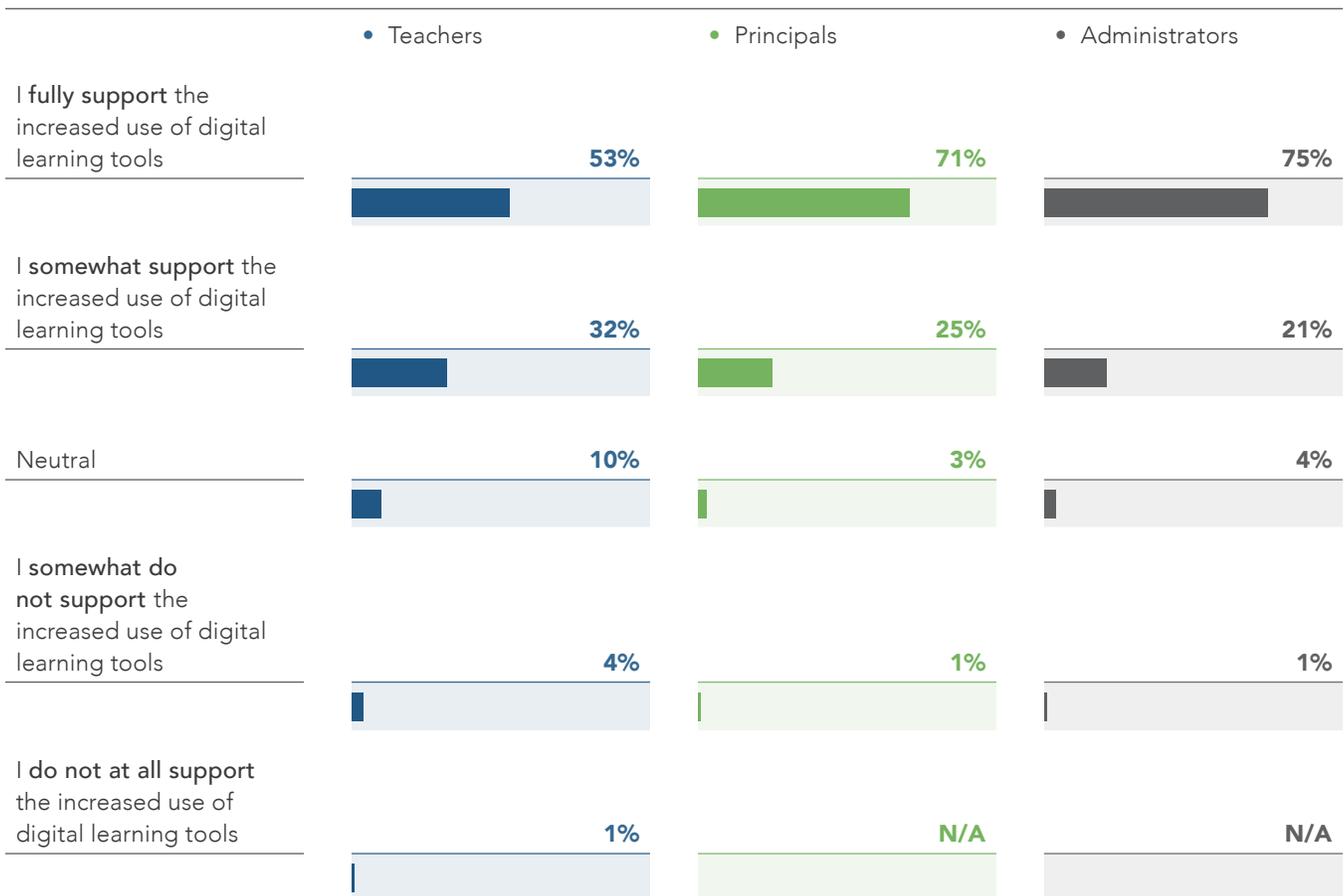
Note: Item phrasing was adjusted for each survey population.

While most teachers (85%), principals (96%) and administrators (96%) at least somewhat support the increased use of digital learning tools in their school, more principals (71%) and administrators (75%) surveyed than teachers (53%) say they fully support increased use of digital learning tools. More teachers than principals and administrators are neutral or say they do not support the increased use of these tools (15% vs. 4% and 5%, respectively).

More principals and administrators than teachers support the increased use of digital learning tools. More female than male district administrators fully support the increased use of digital learning tools (82% vs. 71%).

Figure 21

Please indicate your level of comfort with the increased use of digital learning tools on the following five-point scale.





Insufficient training and cost are among the top reasons why teachers think that some may choose not to use digital learning tools.

Generally, potential barriers to using digital learning tools seem surmountable. Teachers were asked to think broadly about 10 possible reasons why some teachers may choose not to use digital learning tools. Teachers rated the reasons on a five-point significance scale, where 5 means extremely significant and 1 means not at all significant. More than half of teachers say lack of training (56%) is an extremely significant or significant reason. Nearly half say some teachers think non-digital tools are more effective (49%), cost (47%) and not knowing which tools to use (46%) are significant reasons why some teachers may choose not to use them.

While relatively few educators say lack of internet is a significant reason why some teachers may choose not to use digital learning tools, still, 17% of teachers, 11% of principals and 7% of administrators say it is for some teachers.

Figure 22

In your [school/district], some teachers may use digital learning tools in their class(es) more often than other teachers use them. How significant are each of the following reasons that some teachers in your school may choose not to use digital learning tools. (% Extremely Significant + % Significant)

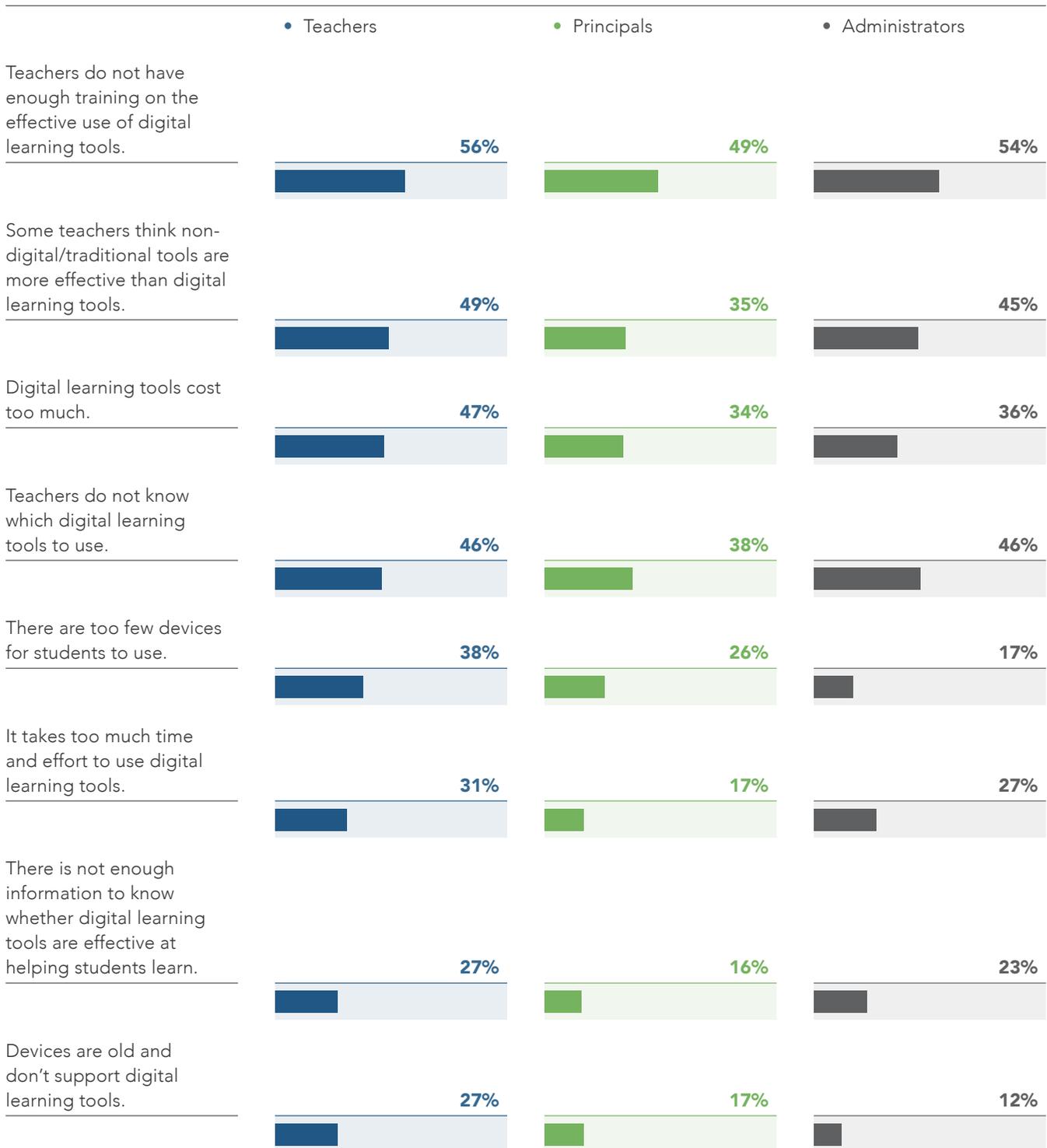
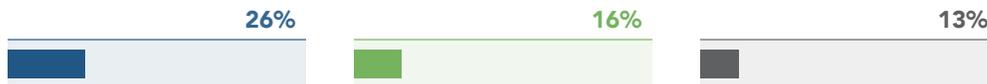


Figure 22 continued

Currently available digital learning tools do not adequately address students' learning needs.



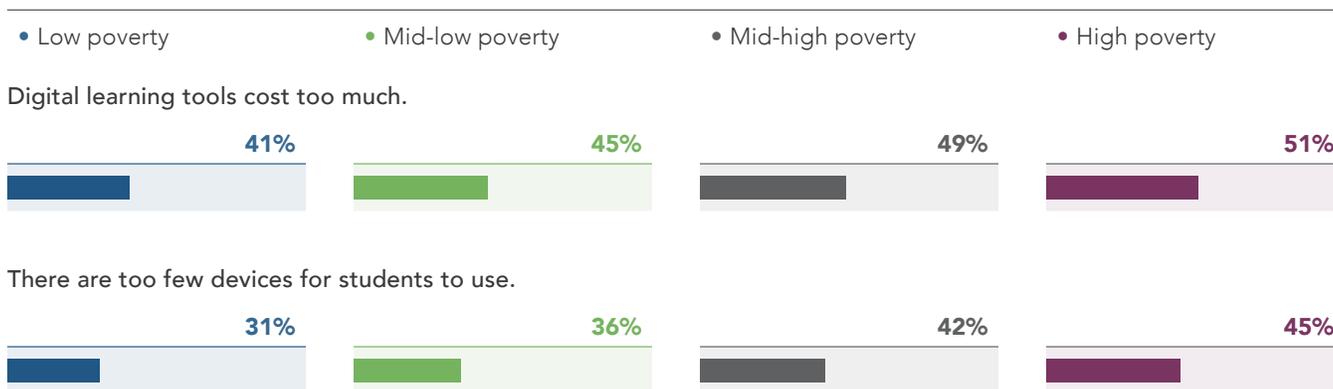
There is no reliable internet access at the school.



The reasons why some teachers may choose not to use digital learning tools may be more impactful for teachers in high-poverty schools than for those in low-poverty schools. About two in 10 teachers (18%) in low-poverty schools say too few devices is an extremely significant reason why teachers may choose not to use digital learning tools with another 13% saying it is a significant reason. Whereas, about three in 10 teachers (29%) in high-poverty schools say too few devices is an extremely significant reason; another 16% say it is a significant reason.

Figure 23: Reasons Teachers May Choose Not to Use Digital Learning Tools, by School Socioeconomic Level

(% Extremely Significant + % Significant)



Students say digital learning tools are fun and help them learn things on their own.

Students rated several characteristics of digital learning tools. To reduce survey burden for young students, elementary students (3rd-5th grade) responded yes or no to the items; secondary students (6th-12th grade) rated the items on a five-point Likert scale where 1 is strongly disagree and 5 is strongly agree.

Nearly all elementary students (96%) say digital learning tools are fun, and most also say they help them learn things on their own (91%), let them learn at their own pace (88%) and make school more interesting (86%). Somewhat fewer say digital learning tools help them focus better (67%). Twenty-seven percent say they need more help to use digital learning tools.

Secondary students are most likely to agree or strongly agree (71%) that digital learning tools help them learn

things on their own. About seven in 10 middle school students (71%) and nearly two-thirds of high school students (64%) say digital learning tools make school more interesting; about two-thirds of both groups of students agree or strongly agree they let them learn at their own pace. Like younger students, middle and high school students are least likely to say they need more help to use digital learning tools.

Figure 24

(Grades 3-5) Please say “yes” or “no” to the next questions about digital learning tools. / (Grades 6-12) The following questions are about digital learning tools. The questions are on a five-point scale; 5 means strongly agree and 1 means strongly disagree.

| | Elementary students | Middle school students | High school students |
|--|---------------------|----------------------------|----------------------------|
| | % Yes | % Strongly Agree + % Agree | % Strongly Agree + % Agree |
| They are fun. | 96% | 65% | 59% |
| They help me learn things on my own. | 91% | 71% | 71% |
| They let me learn at my own pace. | 88% | 67% | 68% |
| They make school more interesting. | 86% | 71% | 64% |
| I want to use digital learning tools more often at school. | 83% | 59% | 51% |
| They help me remember what I learn in class. | 82% | 59% | 55% |
| They help me learn things faster. | 77% | 56% | 56% |
| They help me prepare for future jobs and careers. | 73% | 55% | 64% |
| I want more digital learning tools to choose from. | 73% | 58% | 48% |
| They help me prepare for college. | 70% | 52% | 60% |
| I want to use digital learning tools more often outside of school. | 69% | 38% | 32% |
| They help me focus better in class. | 67% | 44% | 41% |
| I need more help to use digital learning tools. | 27% | 24% | 20% |

Sixth-12th grade students use digital learning tools to learn new information and practice what was learned.

All four populations surveyed were asked to select the activities that students use digital learning tools for at school. Among 12 activities, students are most likely to say they use them to learn new information (69%), practice what was learned (59%) and take tests or quizzes (59%). Likewise, principals and administrators are most likely to say that students use digital learning tools to practice what was learned, learn new information and take tests or quizzes. Teachers are most likely to say that students use digital learning tools to practice what was learned, learn new information and watch informational videos.

Figure 25: Ways Students Use Digital Learning Tools

| | Older students* | Teachers | Principals | Administrators |
|---|-----------------|----------|------------|----------------|
| Learn new information | 69% | 77% | 80% | 78% |
| Practice what was learned (e.g., exercises) | 59% | 85% | 90% | 82% |
| Take tests or quizzes | 59% | 65% | 83% | 75% |
| Look up grades | 53% | 46% | 36% | 29% |
| See things presented or taught | 51% | 65% | 66% | 66% |
| Create something such as a book, presentation, video, art, report or something else | 50% | 51% | 50% | 49% |
| Research or conduct searches on different topics | 49% | 52% | 53% | 45% |
| Watch informational videos | 49% | 72% | 62% | 58% |
| Work with others on projects | 39% | 42% | 48% | 51% |
| Communicate with teachers | 36% | 45% | 52% | 55% |
| Track their learning progress | 27% | 44% | 69% | 58% |
| Read the textbook | 25% | 33% | 36% | 27% |

*Asked only of students in 6th-12th grade.

**Figure 26**

What kinds of things do students use digital learning tools for in [Subject]? Please select all that apply.

| | All teachers | Elementary teachers | Middle school teachers | High school teachers |
|---|--------------|---------------------|------------------------|----------------------|
| Practice what was learned (e.g. exercises) | 85% | 89% | 86% | 81% |
| Learn new information | 77% | 74% | 77% | 80% |
| Watch informational videos | 72% | 68% | 75% | 76% |
| Take tests or quizzes | 65% | 66% | 73% | 64% |
| See things presented or taught | 65% | 59% | 65% | 73% |
| Research or conduct searches on different topics | 52% | 41% | 59% | 62% |
| Create something such as a book, presentation, video, art, report or something else | 51% | 41% | 57% | 59% |
| Look up grades | 46% | 16% | 58% | 71% |
| Communicate with teachers | 45% | 24% | 49% | 66% |
| Track their learning progress | 44% | 45% | 47% | 43% |
| Work with others on projects | 42% | 27% | 47% | 56% |
| Read the textbook | 33% | 31% | 34% | 38% |

Note: School level based on highest grade level taught.

Secondary students want digital learning tools that are fun, interesting and match their learning style.

About half of secondary students (6th-12th grade) say they wish the digital learning tool they use most often at school could be more interesting (55%), more fun (49%) and match their learning style (49%). About four in 10 students wish that the digital learning tools allowed them to play games (39%), track their learning progress (42%), reward them for good work (42%) and save and organize work (42%). Twenty-five percent say they wish it was more challenging; 23% say they wish that digital learning tools could allow them to share their work.

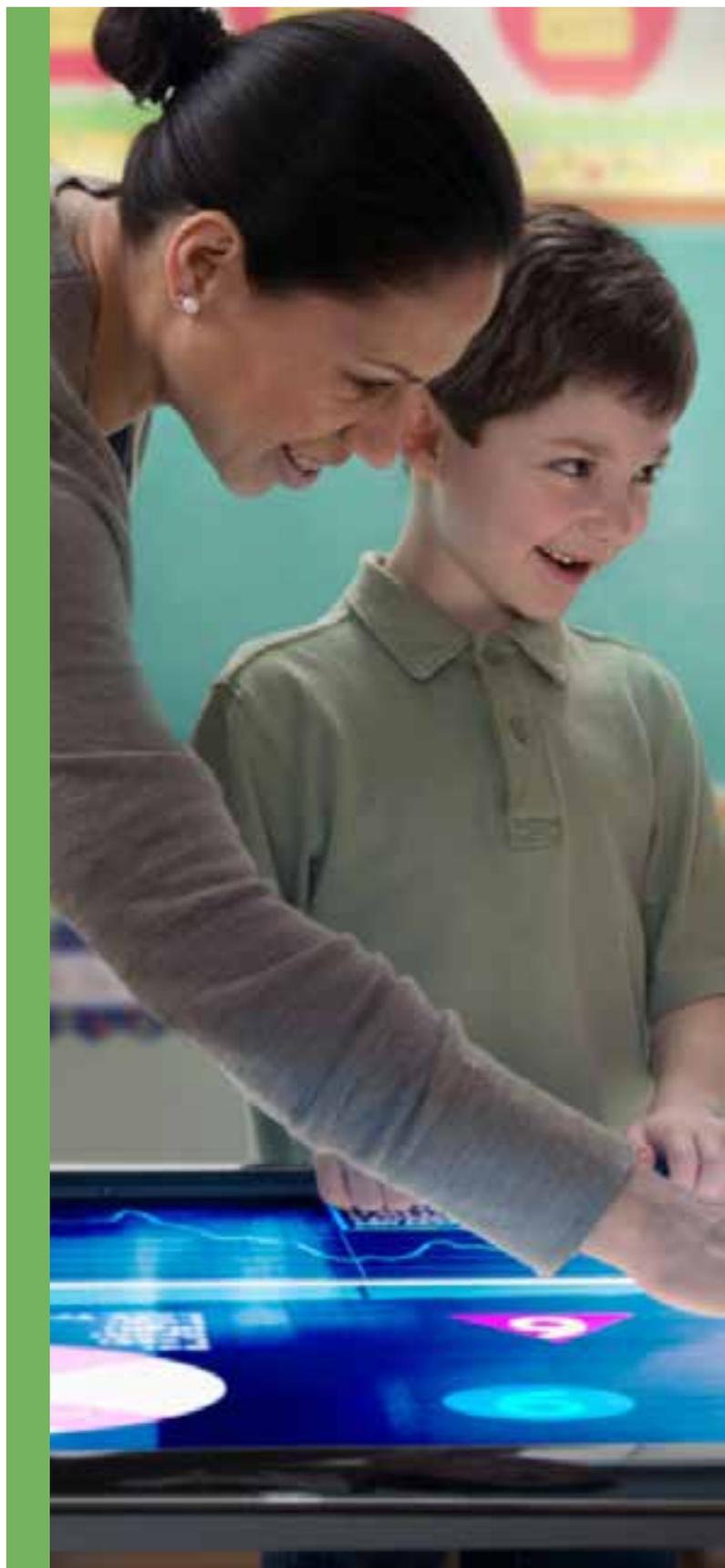
Figure 27

(Secondary school students:) Next, please think about the digital learning tool you use most often at school/outside of school. Again, by digital learning tools, we mean websites, apps, online games and videos, or other programs you use for learning and schoolwork. What do you wish that digital learning tool could do better? Select all that apply.

| | At school | Outside of school |
|--|-----------|-------------------|
| Be more interesting | 55% | 47% |
| Be more fun | 49% | 46% |
| Match my learning style | 49% | 36% |
| Allow me to track my learning progress | 42% | 32% |
| Reward me for good work | 42% | 32% |
| Allow me to save and organize my work | 42% | 31% |
| Allow me to play games | 39% | 34% |
| Allow me to interact with my teachers more | 37% | 29% |
| Allow me to show information in different ways | 36% | 30% |
| Be more helpful | 35% | 33% |
| Allow me to work with others | 34% | 28% |
| Be easier to use | 30% | 30% |
| Allow me to compete with other students | 30% | 25% |
| Be more challenging | 25% | 21% |
| Allow me to share my work with others | 23% | 20% |
| Other | 5% | 6% |
| Don't know | 4% | 12% |

Many administrators say their district has stopped using a digital learning tool because it did not improve student learning outcomes.

About two-thirds of administrators (65%) say their district has stopped using a digital learning tool that was piloted or adopted. Among those who have indicated they have stopped using a tool at some point, the main reason selected is that it did not improve student learning outcomes (41%). Cost (27%) was the next reason cited for ceasing the use of a digital learning tool. More district administrators from rural areas or small towns than their peers from large cities or suburbs say they have stopped using a digital learning tool. Like their peers from more populous areas, they are most likely to indicate it did not improve student learning outcomes.





04

Perceptions of Effectiveness



Section 4: Perceptions of Effectiveness

Teachers, principals and administrators are most likely to say digital learning tools are effective for doing research or searches for information and creating projects, reports or presentations.

Most teachers, principals and administrators (90%, 95% and 97%, respectively) say digital learning tools are extremely effective or effective for doing research or information searches. Similarly, most say they are extremely effective or effective for creating projects, reports or presentations (84%, 93% and 92%), and at least eight in 10 of each group say they are extremely effective or effective at providing practice lessons and exercises (83%, 90% and 90%).

High school teachers (70%) are somewhat less likely than middle and elementary school teachers (both 80%) to say digital learning tools are effective for personalizing content to meet individual students' needs. Teachers who use digital learning tools every day for teaching and learning generally have more favorable perceptions of their effectiveness than their peers who use them less often.

More than one-third (37%) of special education teachers say digital learning tools are extremely effective at making rigorous content accessible for students with special needs; another one-third say they are effective. Fewer, about three in 10, say they are extremely effective for supporting the development of life skills (32%) and encouraging communication and collaboration between students with special needs and their peers in class (28%).

Figure 28

Please think about the digital learning tools you use most often in {in [SUBJECT]/at your school/in your school district}. Teachers: If you teach more than one class for [SUBJECT], think about the class that you use digital learning tools in the most.

On a five-point scale, where 5 means extremely effective and 1 means not at all effective, please rate how effective you think digital learning tools are for the following student learning activities. (% Extremely Effective + % Effective)





Figure 28 continued

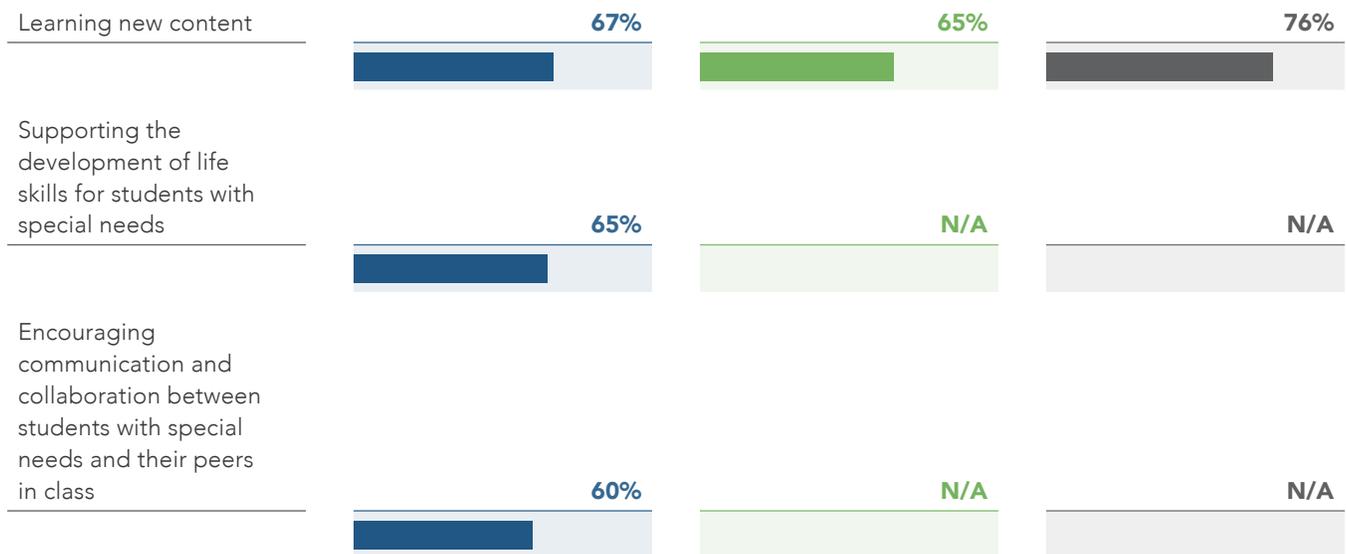


Figure 29

Teachers: Please think about the digital learning tools you use most often in [SUBJECT]. If you teach more than one class for [SUBJECT], think about the class that you use digital learning tools in the most.

On a five-point scale, where 5 means extremely effective and 1 means not at all effective, please rate how effective you think digital learning tools are for the following student learning activities. (% Extremely Effective + % Effective)

| | Teachers overall | English language arts | History/ Social studies | Math | Reading | Science | Special education |
|---|------------------|-----------------------|-------------------------|------|---------|---------|-------------------|
| Doing research or searches for information | 90% | 93% | 93% | 88% | 86% | 93% | 88% |
| Creating projects, reports or presentations | 84% | 89% | 86% | 76% | 82% | 89% | 81% |
| Providing practice lessons and exercises | 83% | 86% | 75% | 85% | 85% | 82% | 83% |
| Personalizing content to meet individual students' needs | 76% | 78% | 70% | 81% | 81% | 64% | 74% |
| Assessing student learning | 71% | 78% | 71% | 67% | 71% | 67% | 70% |
| Working with others on projects | 71% | 76% | 77% | 69% | 69% | 77% | 62% |
| Creating student-led learning plans | 68% | 71% | 65% | 65% | 69% | 66% | 67% |
| Learning new content | 67% | 66% | 71% | 64% | 69% | 67% | 63% |
| Making rigorous content accessible to students with special needs and/or disabilities* | N/A | N/A | N/A | N/A | N/A | N/A | 70% |
| Supporting the development of life skills for students with special needs* | N/A | N/A | N/A | N/A | N/A | N/A | 66% |
| Encouraging communication between students with special needs and their peers in class* | N/A | N/A | N/A | N/A | N/A | N/A | 59% |

* Results reported for those whose main subject area taught is special education.

Note: English language learning, Computer science/Information technology, Health/Social and emotional learning sample sizes are too small to report.



Teachers, principals and administrators are most likely to report that there are enough useful digital learning tools available for computer science/information technology, reading, English language arts and math and generally report tools for these subjects are effective.

Between seven and eight in 10 teachers, principals and administrators say there are enough useful tools available for computer science/information technology, reading, English language arts and math; they also say that the digital learning tools for those subject areas are extremely effective or effective. All groups surveyed are least likely to say there are enough useful digital learning tools to support health/social and emotional learning; they are least likely to report that the tools available for this learning area are extremely effective or effective at helping students learn. That said, more teachers than principals and administrators say that they are extremely effective or effective.

High school teachers are less likely than their peers to say that math tools are effective; 63% say they are extremely effective or effective, versus 73% of middle school teachers and 81% of elementary school teachers. Teachers who indicated the subject area is their main subject or learning area taught rated the effectiveness of digital learning tools for that subject similarly to teachers overall.

Figure 30

Based on what you have seen or heard, do you think each of the following subjects or learning areas has enough useful digital learning tools available? / Again, based on what you have seen or heard, how effective are currently available digital learning tools at helping students learn in each of the following subjects or learning areas?

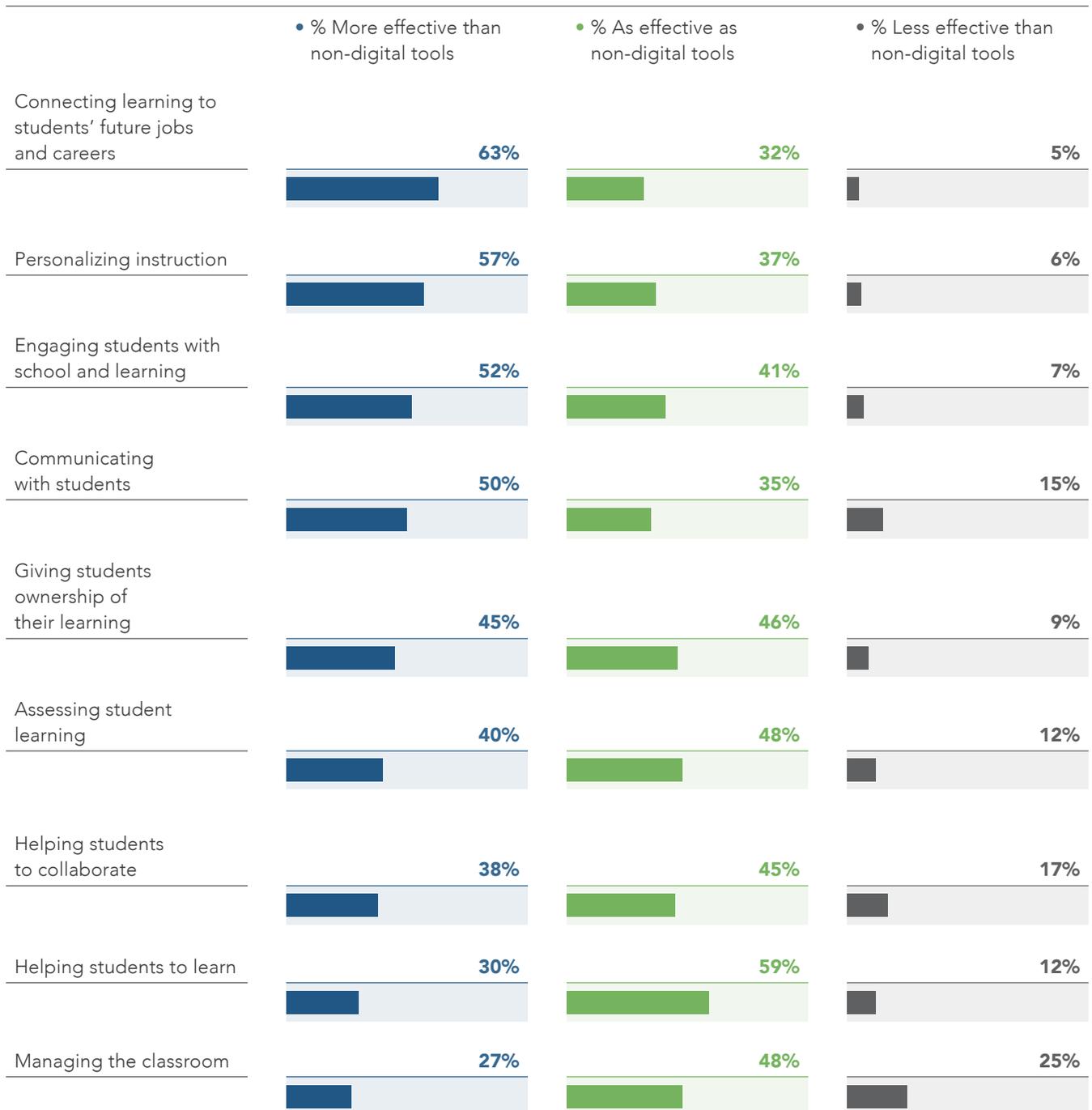
| | Teachers | | Principals | | Administrators | |
|---|----------|-----------------------------------|------------|-----------------------------------|----------------|-----------------------------------|
| | % Yes | % Extremely Effective + Effective | % Yes | % Extremely Effective + Effective | % Yes | % Extremely Effective + Effective |
| Computer science/ Information technology | 79% | 83% | 77% | 74% | 74% | 80% |
| Reading | 77% | 75% | 83% | 71% | 80% | 75% |
| English/Language arts | 74% | 74% | 77% | 69% | 74% | 73% |
| Math | 72% | 72% | 79% | 71% | 68% | 72% |
| Science | 64% | 70% | 63% | 62% | 58% | 66% |
| English language learning | 64% | 68% | 62% | 56% | 60% | 64% |
| History/Social studies | 63% | 67% | 58% | 57% | 61% | 65% |
| Special education | 58% | 62% | 61% | 54% | 62% | 61% |
| Health/Social and emotional learning | 52% | 59% | 45% | 43% | 44% | 50% |

Most teachers, principals and administrators think digital learning tools are at least as effective as non-digital learning tools.

More than six in 10 teachers (63%) say digital learning tools are more effective than non-digital tools for connecting learning to students' future jobs and careers, the highest percentage for any of the nine objectives tested in the survey. At least half of teachers also believe digital tools are more effective than non-digital tools for personalizing instruction (57%), engaging students (52%) and communicating with students (50%). Fewer than half say they are more effective than non-digital tools for giving students ownership of their learning (45%), assessing student learning (40%), helping students to collaborate (38%) and helping students to learn (30%). Teachers are about as likely to say digital tools are more effective than non-digital tools (27%) as they are to say they are less effective (25%) for managing the classroom.

Figure 31

Teachers: Please indicate whether you think digital learning tools are generally more effective than, as effective as, or are generally less effective than non-digital tools in the following ways.



Like teachers, principals are most likely to say digital learning tools are more effective than non-digital tools for connecting learning to students' future jobs and careers (68%). A majority of principals also say that digital learning tools are more effective for personalizing instruction (65%), engaging students (55%) and assessing student learning (51%). Similar to teachers, 23% of principals say digital learning tools are more effective than non-digital tools for managing the classroom; 20% say they are less effective.

School district administrators have more favorable perceptions of the effectiveness of digital learning tools than teachers and principals.

Majorities of school district administrators say that digital learning tools are more effective than non-digital tools for personalizing instruction (73%), connecting learning to students' future jobs and careers (70%), engaging students (59%), assessing student learning (56%), communicating with students (56%) and giving students ownership of their learning (54%). Like teachers and principals, administrators are least likely to say digital learning tools are more effective than non-digital tools for managing the classroom (25%).



Figure 32

Please indicate whether you think digital learning tools are generally more effective than, as effective as, or are generally less effective than non-digital tools in the following ways. (% More effective)

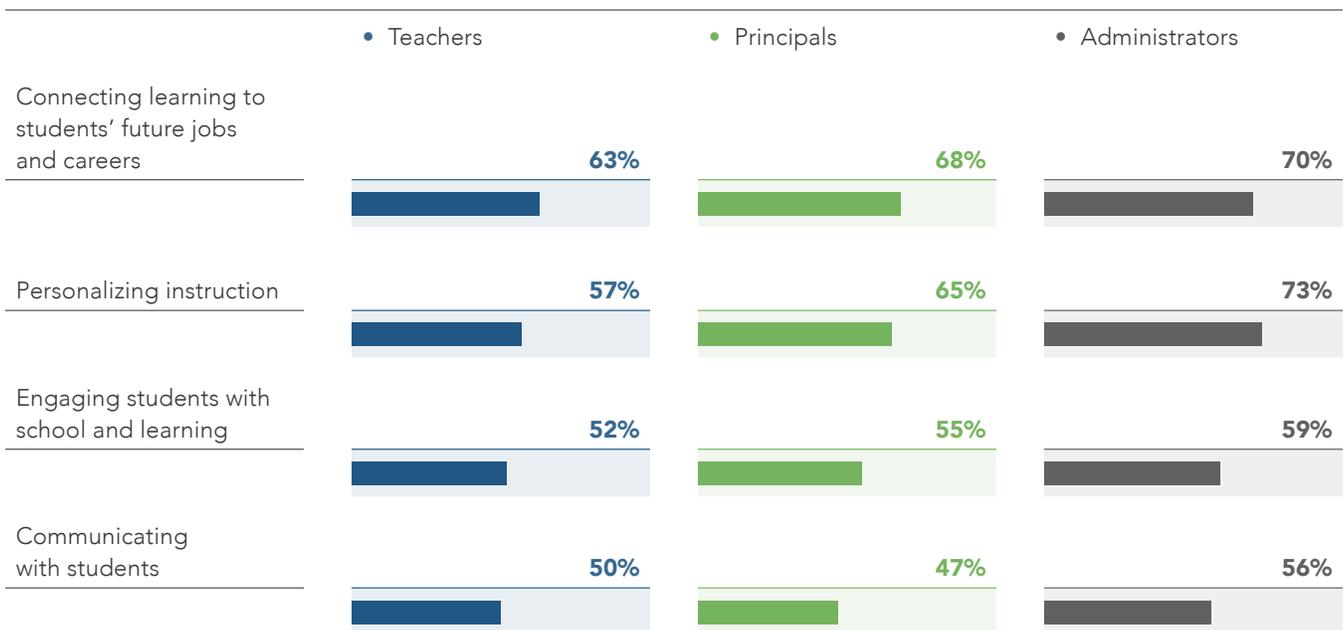
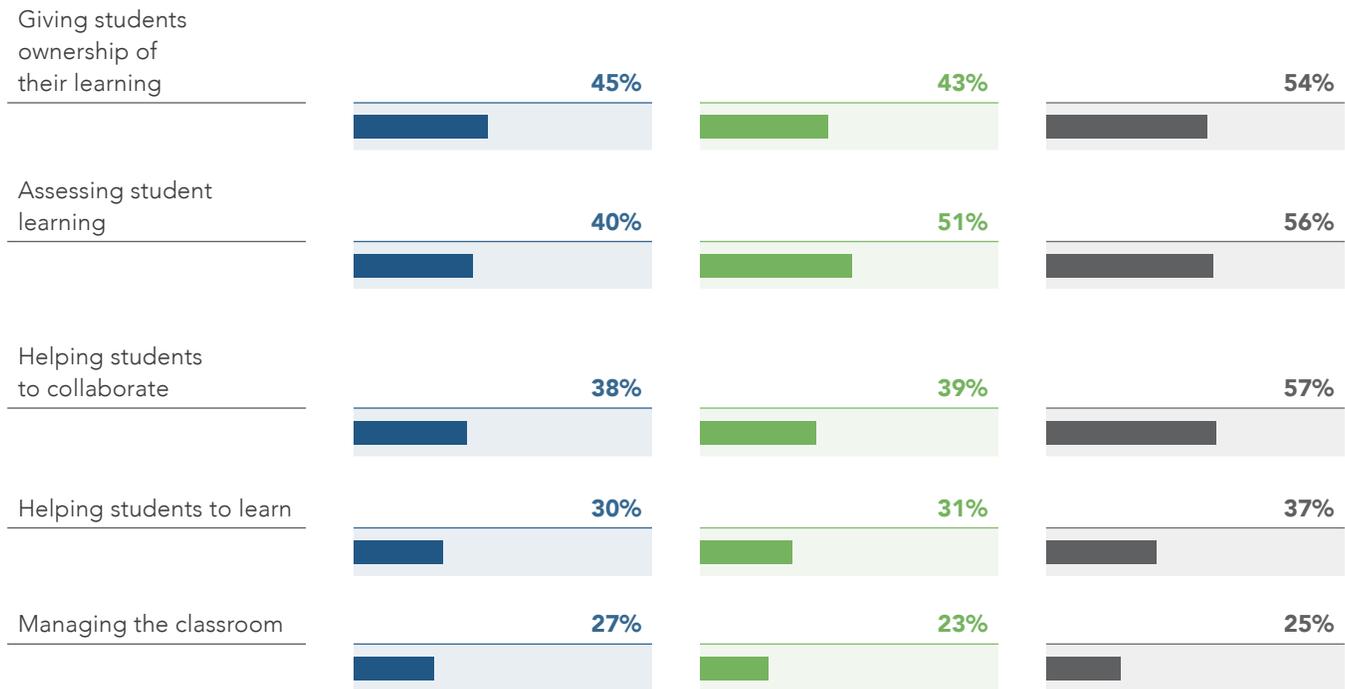


Figure 32 continued

High school teachers are more likely than their peers to say digital learning tools are more effective than non-digital tools for communicating with students (62%) and helping students to collaborate (48%). Middle school principals are generally most positive about the effectiveness of digital learning tools versus non-digital tools. Namely, 45% say they are more effective for helping students to learn, versus 25% of elementary school principals and 33% of high school principals. About half of middle school principals (51%) say they are more effective for helping students collaborate; whereas 31% of elementary principals say this. Similarly, 60% of middle school principals say they are more effective for communicating with students; 38% of elementary school principals say this.

05

Approaches to School and Learning



Section 5: Approaches to School and Learning

Teachers who say students in their class work on varied content at different paces are more likely to say students use digital learning tools daily.

Educators account for students’ diverse learning needs and preferences in designing learning environments and approaches. Teachers, principals and administrators were asked to select one of two ways to describe how content is presented and learned in class.

More than six in 10 teachers (64%) who say their students work on different content at different paces in class report their students use digital learning tools daily. Among teachers who say their students learn the same content at the same pace as a class, 45% report their students use digital learning tools daily. Teachers whose students work on different content at different paces are also more likely to strongly agree that digital learning tools help to personalize learning for students. They are also more likely to strongly agree that students are given learning activities that align with their needs, skills and interests.

Figure 33: Teachers: Results Based on Learning Approach

| | Students learn the same content at the same pace | Students work on different content at different paces |
|--|--|---|
| Students use digital learning tools every day | 45% | 64% |
| Strongly agree digital learning tools help me personalize learning | 35% | 51% |
| Strongly agree students are given learning activities that align with their needs, skills, and interests | 23% | 38% |

Majorities of educators say students generally work on the same content in unison in class.

On the binary response options, over half of teachers (55%) say their students generally learn the same content, working at the same pace together as a class; 45% say their students work on different content at different paces based on their level. More principals (63%) and administrators (77%) than teachers (55%) say students learn the same content, working at the same pace. Other studies have shown a majority of teachers, overall, say their students learn the same content at the same pace.⁶ The binary response options for this item yield results that suggest a possible link between varied content and learning paces with the use of digital learning tools, which merits further study.

Figure 34

How do your students generally learn in the classroom during class hours?

| | Teachers | Principals | Administrators |
|---|----------|------------|----------------|
| [My] students generally learn the same content, working at the same pace together as a class (e.g., traditional classroom environment). | 55% | 63% | 77% |
| [My] students will work on different content, at different paces, depending on their level (e.g., a non-traditional classroom environment). | 45% | 37% | 23% |

High school teachers (73%) are most likely to say students learn the same content at the same pace, and 61% of middle school teachers say the same. Nearly two-thirds (65%) of elementary school teachers say their students work on different content at different paces, depending on their level.

Figure 35

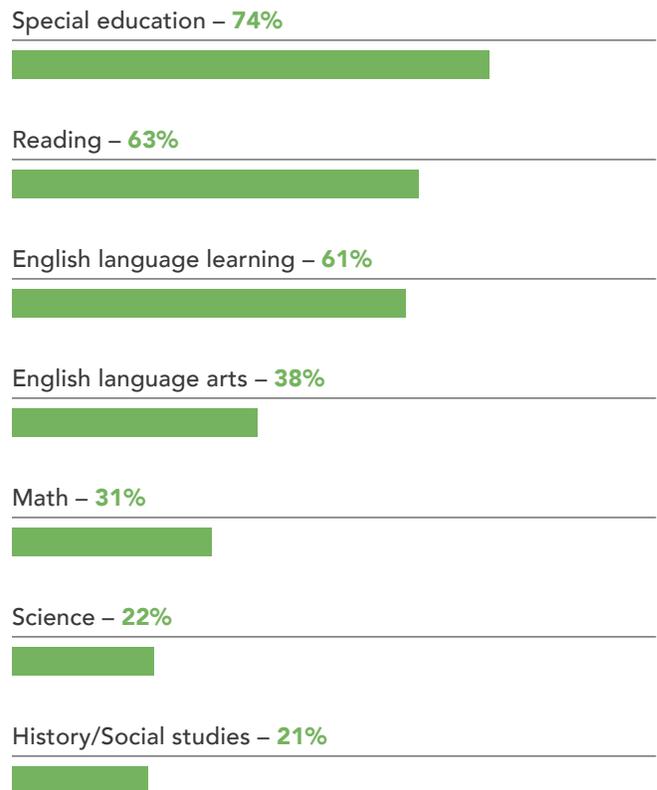
How do your students generally learn in the classroom during class hours?

| | Students learn the same content at the same pace | Students work on different content at different paces |
|--------------|--|---|
| All teachers | 55% | 45% |
| Pre-K* | 34% | 66% |
| Elementary | 35% | 65% |
| Middle | 61% | 39% |
| High | 73% | 27% |

*n size for this Pre-K group is low (n = 89)

Note: School level based on highest grade level taught.

Figure 36: Students Will Generally Work on Different Content at Different Paces by Teachers' Main Subject or Learning Area Taught



⁶ 2015 Teachers Know Best Survey. Accessed online at <http://edtech-production.herokuapp.com/survey-results/1?facetType=Overall>



Nearly two-thirds of teachers overall (64%) group their students with other students of similar ability. Teachers of elementary (82%) and middle school students (63%) are more likely than teachers of high school students (48%) to say they group students of similar ability levels. One reason for this difference may be that high schools tend to offer classes of varying levels that group students with those of similar learning level, which might not be so for K-5 classrooms. More than half of teachers surveyed say they change the composition of these groups based on students' learning at least once or twice a month (37%) or weekly (24%); 37% change them a few times a year.

Teachers say they know their students personally, and most students feel someone at school cares about them.

This study explored some of the ways that teachers teach and students learn. At least eight in 10 teachers (80%), principals (86%) and administrators (87%) strongly agree or agree teachers know students personally.

Fewer educators strongly agree or agree students are allowed to suggest ways to demonstrate their learning and collaborate with teachers to set learning goals.

Nearly all **elementary students (96%)** say there is someone at school who cares about them as a person.

Three in four (76%) secondary students strongly agree or agree with this statement. Most students know which skills they need to improve at school, but fewer say they can connect what they are learning in their classes with life outside of school. Eight in 10 (82%) of elementary students say their teachers know what their interests are; 42% of secondary students strongly agree or agree their teachers know their interests. Across seven areas, students are least likely to say their teachers let them choose topics they like to learn about in the lessons or units they study.

Figure 37: Educators' Perceptions of School and Learning Approaches

(% Strongly Agree + % Agree)



Figure 37 continued

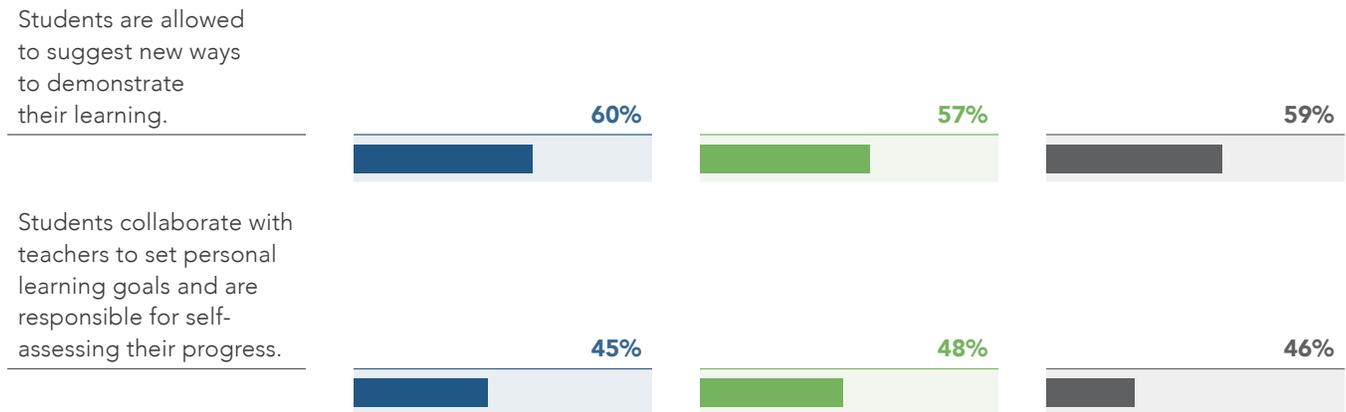
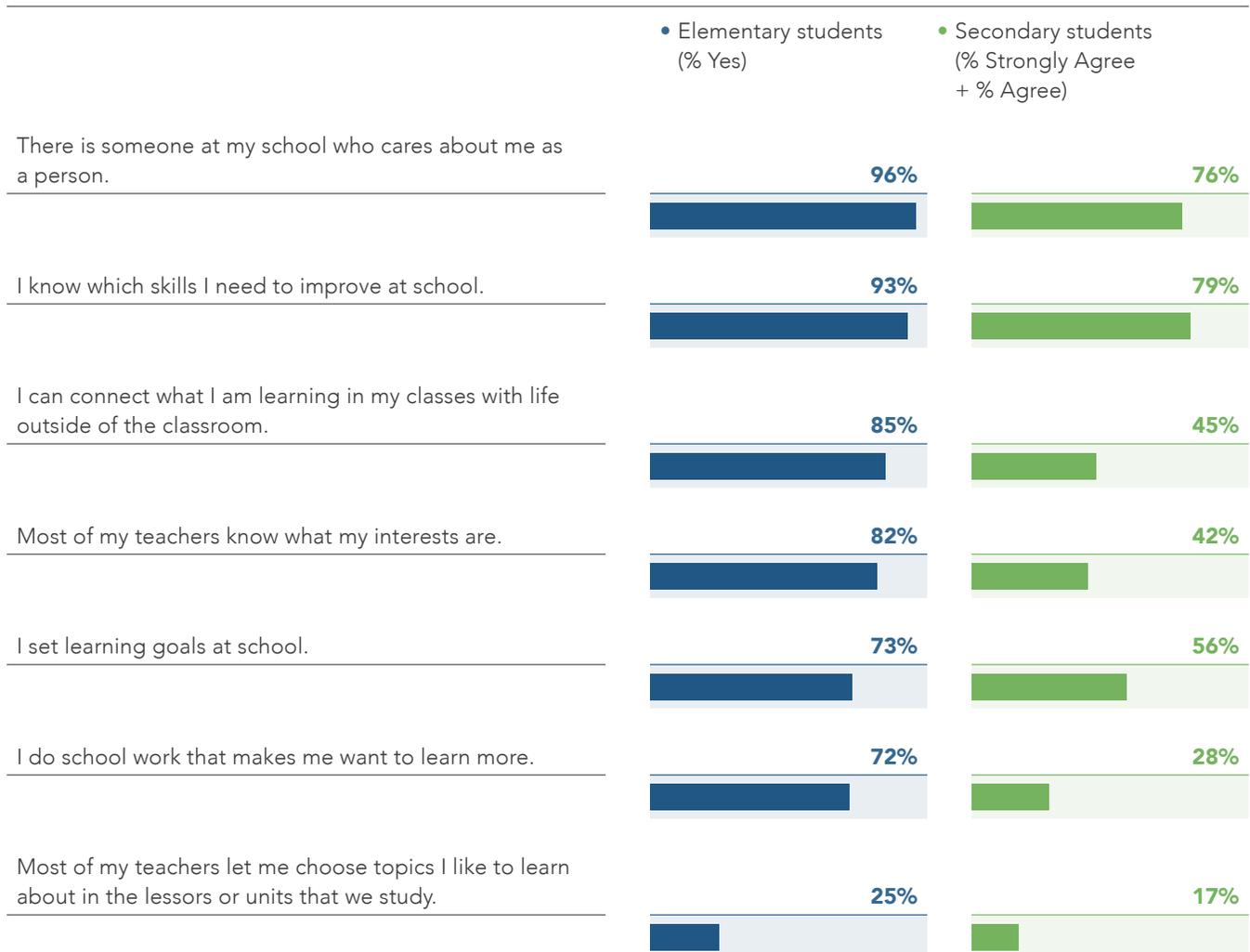


Figure 38: Students' Perceptions of School and Learning Approaches





Conclusion

The ways that students learn and teachers teach continue to change, and approaches are evolving ever faster.⁷ This study was conducted in response to the need to better understand the utility, value and perceptions of digital learning tools in schools and ways that those tools are driving changes in education in U.S. public schools. Results suggest that digital learning tools are meeting needs in many ways to engage students, personalize instruction and support schools in their requirement to align content with state standards and district initiatives. Results also show that more can be done to ensure that the content, functionality and adaptability of digital learning tools support classroom teaching and learning so that every student can maximize their potential. Since teachers rely on one another most to learn about what works for students, leaders must continue to make more and better information and training available for teachers, the people who have the most impact on student growth and learning.

Methodology

Results for the Gallup-New Schools Venture Fund study report are based on surveys conducted Jan. 29-March 25, 2019. Gallup collected 3,210 teacher, 1,163 principal, 1,219 district administrator and 2,696 student completed or partially completed surveys. All Gallup-New Schools Venture Fund interviews were conducted via the Web, in English only. Gallup education consultants developed the questionnaire in collaboration with project leaders from NewSchools Venture Fund.

The teacher, district administrator and principal surveys were each conducted using a reliable, non-probability-based sample purchased from a sample provider. The teacher sample included Pre-K-12 public school teachers who taught math, science, English/language arts, reading, history/social studies, health/social and emotional learning and computer science. The principal sample included principals from K-12 public schools. The administrator sample included superintendents, assistant superintendents and other leaders who influence education technology in public school districts. The student sample

includes students in grades 3-12. Student surveys were conducted using the Gallup Panel. The Gallup Panel is a nationally representative panel of U.S. adults aged 18 and over. Adults are recruited to the Gallup Panel using address-based sampling (ABS) and random-digit-dial (RDD) methods. Gallup contacted households with school-aged children and obtained consent from parents/legal guardians to survey the student. Respondents were offered a \$5 gift card incentive for their participation.

Teacher, principal and administrator samples are weighted to correct for nonresponse. The data are weighted to match known targets for U.S. teachers, principals and administrators. Teacher and principal weighting targets are based on community type (city/suburban/town/rural), school level (primary/middle/high/combined), total student enrollment and percentage of students approved for the National School Lunch Program. Administrator weighting targets are based on community type, student enrollment and region (East/Midwest/South/West). In some cases, percentages may not add to 100% due to rounding.

Gallup Panel student samples are weighted to correct for unequal selection probability and nonresponse. The data are weighted to match known national demographic targets for age, race, Hispanic ethnicity, education, region and grade. Demographic weighting targets are based on the most recent National Center for Education Statistics enrollment information.

All reported margins of sampling error for the Gallup-NSVF study include the computed design effects for weighting.

- For results based on the total sample of teachers, the margin of sampling error is ± 2.1 percentage points at the 95% confidence level.
- For results based on the total sample of principals, the margin of sampling error is ± 3.5 percentage points at the 95% confidence level.
- For results based on the total sample of administrators, the margin of sampling error is ± 3.2 percentage points at the 95% confidence level.
- For results based on the total sample of students, the margin of sampling error is ± 2.3 percentage points at the 95% confidence level.

Margins of sampling error are larger for sub-groups. In addition to sampling error, question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of public opinion surveys.

7 Schroeder, Ray, "Emerging Roles of AI in Education." Inside Higher Ed. Accessed online at <https://www.insidehighered.com/digital-learning/blogs/online-trending-now/emerging-roles-ai-education>

About Gallup

Gallup delivers analytics and advice to help leaders and organizations solve their most pressing problems. Combining more than 80 years of experience with its global reach, Gallup knows more about the attitudes and behaviors of employees, customers, students and citizens than any other organization in the world.

About NewSchools Venture Fund

NewSchools Venture Fund is a national nonprofit that supports and invests in innovators and educators who want to reimagine learning. We help them accomplish their missions to achieve outstanding results for the schools, students, and educators they serve. We are committed to helping public school students graduate high school prepared and inspired to achieve their most ambitious dreams and plans. Through our investments, management assistance, network building and thought leadership, NewSchools helps to reimagine Pre-K-12 education. To learn more, visit newschools.org, or follow us on Twitter, Facebook and Instagram.

Survey results in this report represent an effort to include the voices of key constituents to inform the pursuit of innovative ways to help all students learn and grow.

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