Digital Promise®

Accelerating Innovation in Education

Learning in the 21st Century:

How the American Public, Parents, and Teachers View Educational Priorities and How to Achieve Them

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Executive Summary

Majorities of Americans say teachers lack the support, tools, and professional learning they need to focus on students' individual learner variability—despite a broad desire for the schools to do just that.

Learner Variability

Agreement on the need is vast: Among public school teachers, parents, and all adults alike, at least eight in 10 recognize that students vary in how they learn, say schools should address learner variability, and favor tailored instruction—an approach designed to address learner variability—over conventional whole group instruction.

Yet nine in 10 teachers, about eight in 10 Americans overall, and three-quarters of parents also say that teachers don't have the support they need to focus on students' learner variability. Most say teachers' time and professional learning opportunities are lacking as well. Those results mark a broad gap between what the public wants and what they believe schools are able to provide.

These findings are highlighted in *Learning in the 21st Century: How the American Public, Parents, and Teachers View Educational Priorities and How to Achieve Them*, the 2020 Learner Variability Project survey produced for the education nonprofit Digital Promise by Langer Research Associates. The study explores public attitudes about learner variability, instructional techniques, educational priorities, and the use of educational technology, as well as teachers' personal practices, preferences, and experiences. It was conducted among a random national sample of 1,850 adults, including 504 public school parents and 500 public school teachers.

Interviews were conducted between September 23 through October 8, 2019, using the Ipsos KnowledgePanel®, in which randomly recruited participants complete surveys online. Results are reported for the three main respondent groups: the general public, public school parents, and public school teachers.

This study is part two of a four-part series of surveys on learner variability and other factors of 21st century learning.

Tailored Instruction

Although parents offer overwhelming support

Learner variability refers to the abilities students have and the challenges they bring to the learning environment. Factors include their personal background and knowledge, their health and psychological well-being, and how they think, among other things.

for the concept of using tailored instruction plans in their local schools—95 percent of public school parents said so—they offer slightly less support when asked about developing individual plans at their own child's school. Sixty-two percent say they are very or extremely interested in having their child's school try to understand their own child's learner variability and to develop a tailored instruction plan for them.

> The survey defined **tailored instruction** as: "students learn content at a different pace, or with different instructional materials and support—instruction is adjusted based on an evaluation of how each student learns.

Few parents say they are uncomfortable sharing information that would allow schools to develop tailored instruction plans for their child. However, only 25 percent of parents say they would be "very comfortable" having their child's school use personal information about their family to develop such plans.

Regarding educational technology (edtech), 85 percent of teachers say edtech improves students' learning experiences, while 77 percent of parents and the general public say the same. Of those teachers who say they use edtech, 93 percent report using it because it supports their work with learner variability.

What's Important in Education

Results show that eight in 10 of all adults, parents, and teachers see the following as extremely or very important for schools to offer students:

- Teaching students to be respectful and value one another
- Helping students reach their individual potential
- Preparing students to be good citizens

Broad majorities also concur that giving students a good understanding of the main academic subjects, working with their individual interests, strengths, and challenges, and preparing students to get jobs are highly important.

In comparison, only 48 percent, including 41 percent of all adults and just 24 percent of teachers, see preparing students to do well on standardized tests as "extremely important" or "very important."

Role of Edtech

Eighty-five percent of teachers say edtech improves student learning experiences, and 77 percent of all adults and parents agree. Additionally, nearly 60 percent of teachers use edtech in the classroom every day or most days. However, fewer teachers use edtech for homework or out-of-school assignments; a key reason teachers gave for not using edtech outside of the classroom is concern about lack of access at home.

Teachers who use edtech say they do so because they believe it supports their work with student learner variability. Ninety-three percent call this an important factor in deciding which edtech to use, with 41 percent saying it's "very important."

Teachers who report higher comfort levels with new computer software and apps are more apt to use edtech frequently to address learner variability, and are more likely to use it to tailor instruction. Also, teachers who report having a lot or good amount of input on selecting edtech products are three times as likely as others to say the edtech they use is very effective in helping them support student learner variability. Those who report more

input also are nearly twice as likely to say they often use data from edtech products to help them support learner variability.

Teacher Decision Regarding Instructional Strategies

Similar to the first survey in our series, *Learning in the 21st Century: How the American Public, Parents, and Teachers View Students' Potential and Their Learning Experience, 2019*, teachers continue to rely on their experience (94 percent) and instinct (89 percent) to do their work. Majorities also rely on their education/ professional development (71 percent), teacher peers (65 percent), and resources such as teaching guides, textbook guides, or curriculum (62 percent). Just about half of teachers report that they rely a great deal or good amount on academic research. A lack of time is the major reason teachers say they do not follow more academic research.

Findings

Are Teachers Prepared to Teach with Learner Variability in Mind?

Parents, teachers, and all adults overwhelmingly say schools should work with individual learner variability rather than focus on average abilities across a class. The question is: How do they get there, given shortfalls in time, support, and the professional learning needed to achieve this goal?

Time and support are most likely to be seen as lacking. About eight in 10 adults say teachers don't have enough of either of these to work with each student's individual learner variability. Teachers resoundingly agree: Ninety-four percent say most in their profession lack the time it takes to focus on learner variability, and 90 percent say they lack the support.

Notably, 74 percent of teachers also say they generally don't have the right training to work with learner variability, surpassing the numbers of the general public and parents who say they do. Compared with the general public and parents, teachers are less apt to report that teachers personally lack this training, but 52 percent still say they don't have the professional learning to work with each student's variability. Teachers also broadly say they personally lack the time (88 percent) and support (73 support) they need.

Some teachers report being better equipped than others to work with learner variability. Teaching experience is a factor:

- 57 percent of those who've been teaching for 20 years or more say they have the right training, compared with 43 percent of teachers with less time in the field.

- Those who are very satisfied with their role as an educator are more likely than those who are less satisfied to say they have the right training (60 percent versus 40 percent), and enough support (44 percent versus 17 percent).

Barriers to Addressing Learner Variability

Legend: ■ General public ■ Parents ■ Teachers

	Not enough time	Not the right training	Not enough support
General public	82%	62%	81%
Parents	79%	57%	76%
Teachers	94%	74%	90%
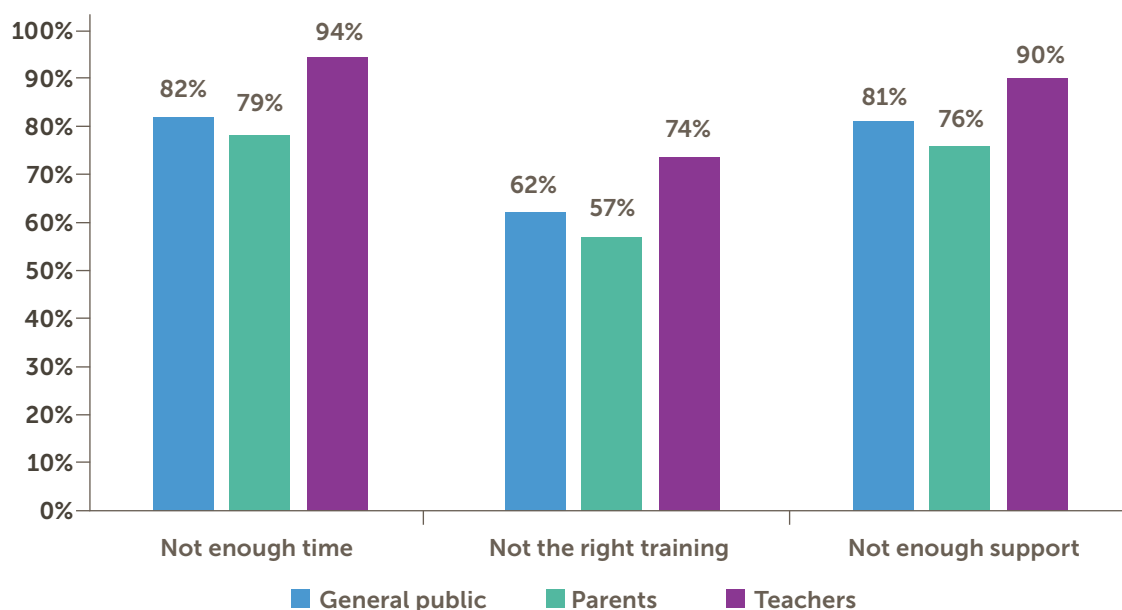
Are Schools "Teaching to the Middle" or Attending to Learner Variability?

The views on learner variability mark a chasm between what parents, teachers, and all adults say schools should be doing, and what they believe schools actually are doing. Eighty-one percent of the general public and parents alike and 88 percent of teachers want schools to address individual learner variability, as many see tailored instruction as more effective than whole group instruction.

But, majorities in all three groups instead say schools currently "teach to the middle," focusing on average learning abilities across a class rather than focusing on students' individual needs. Three-quarters of the public, seven in 10 parents, and six in 10 teachers see this as the current approach. Seven in 10 parents also say their own child's public school teaches in this way, again contrary to the kind of instruction that the majority would prefer.

Is Learner Variability Being Addressed In Schools?			
	Teachers	Parents	General Public
Say schools should work with individual learner variability	88%	81%	81%
Favor tailored over whole group instruction	88	81	83
Say local schools "teach to the middle"	59	71	75

Underpinning these views is a recognition of the presence of learner variability, a view that holds across groups:

- 88 percent of teachers, 81 percent of parents, and 80 percent of all adults say students vary a great deal or a good amount in how they learn.

- 84 percent of teachers say this is the case with their own students.

What do parents believe about learner variability?

Attitudes among parents are related to their own experiences as well as to their oldest child's grade level. Among parents of multiple children, 68 percent say their children vary a great deal or good amount in how they learn.

Ninety-two percent of parents are interested in having their child's school try to understand their own child's learner variability, with 62 percent as very interested. Over 90 percent are interested in the school developing a tailored instruction plan.

There's room for greater understanding: Just 37 percent of parents feel they know a great deal or a good amount about learner variability. Forty-four percent say they know "just some" about it and 18 percent report little or no knowledge on the subject. About three in 10 parents are extremely or very interested in information about learner variability; approximately four in 10 are interested, albeit less intensely.

Which is Preferred: Whole Group Instruction or Tailored Instruction?

While a mix of methods may work best in practice, the public holds tailored instruction in much higher regard than whole group instruction: 83 percent of the general public says tailored instruction is the better way to learn. Moreover, 67 percent strongly feel that way. Only nine percent feel strongly that whole group instruction is superior.

> 83 percent of the general public says tailored instruction is the better way to learn. Moreover, 67 percent strongly feel that way.

Accordingly, Americans overwhelmingly support creating a tailored instruction program in their local schools. Ninety-five percent of the general public and public school parents alike support the idea, as did 90 percent in last year's Digital Promise study. Eighty-six percent of public school teachers support it as well, including 95 percent of teachers with less than 10 years' experience. For teachers with more than a decade in the profession, 82 percent support tailored instruction.

What Information are Teachers and Parents Willing to Share with Teachers to Support Tailored Instruction?

Teachers say they're comfortable using a variety of information to understand a student's individual learner variability and to create a tailored instruction plan. These include the student's:

- Cognitive abilities, or how a student learns (97 percent)
- Personal background, such as their family circumstances (91 percent)
- Mental health (90 percent)
- Physical health (89 percent)

That said, fewer than half—four in 10—are "very comfortable" using information about a student's cognitive abilities. Just 22 percent are very comfortable using information about a student's personal background, and 28 percent feel very comfortable using information regarding a student's physical or mental health.

Parents generally are comfortable with their child's school using personal information in creating a tailored instruction plan, particularly information on cognitive abilities (94 percent), physical health (91 percent), and mental health (88 percent). But parents' comfort levels drop slightly when asked about using information on their child's personal background such as family circumstances (79 percent). As with teachers, fewer (25 percent to 39 percent) are "very" comfortable with the school using any of these.

How Do Teachers Teach Now and How Would They Prefer to Teach?

In terms of their current approach, about half of teachers say they use an even mix of tailored instruction and whole group instruction. About three in 10 use entirely or mostly whole group instruction, while two in 10 use entirely or mostly tailored instruction.

Whole group instruction is more often used by teachers at larger schools and those who teach grades 9-12, with a great deal of overlap between the two groups. In schools with 1,000 or more students, 45 percent of teachers say they entirely or mostly use whole group instruction, compared with 25 percent of those in schools with fewer than 500 students. On a grade level, whole group instruction is used by 38 percent of high school teachers, 33 percent of middle school teachers (grades 6-8), and 22 percent of K-5 teachers.

Percent of teachers who entirely or mostly use whole group instruction				
Schools with 1,000+ students	Schools with >500 students	High School	Middle School	K-5
45%	25%	38%	33%	22%

Another difference by teachers' race or ethnicity emerges. Among white teachers, 32 percent say they entirely or mostly use whole group rather than tailored instruction; this falls to 17 percent among Black and Hispanic teachers. By contrast, 31 percent of Black and Hispanic teachers mainly use tailored instruction, versus 15 percent of white teachers.

Drilling down into current instructional approaches to address learner variability:

- 92 percent of teachers say they often or sometimes instruct some students in small groups while other students work on their own.

- 86 percent often or sometimes use one-on-one instruction while other students work on their own.

- 84 percent often or sometimes contact parents to discuss their child's needs.

- 81 percent often or sometimes use edtech. Just five percent never do this.

- About two-thirds often or sometimes use after-class availability for students with questions or refer students to a learning specialist.

How often do you use...
Among public school teachers
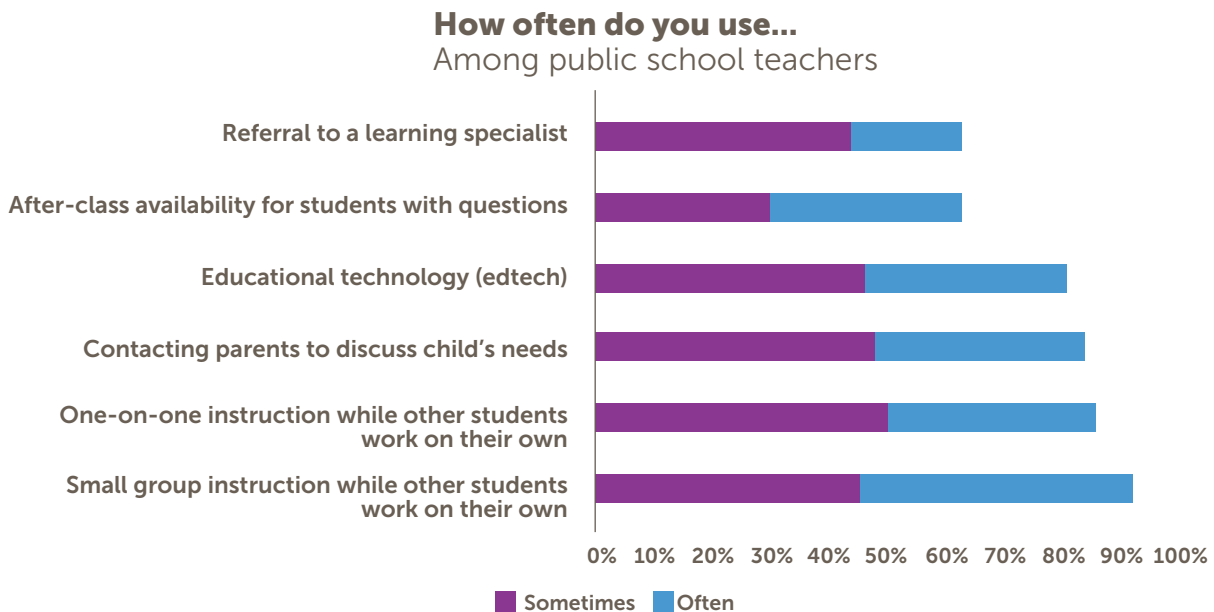
Turning to the views of parents reveals a disconnect between what public school teachers say they're providing and what public school parents believe their child is receiving. Seventy-one percent of parents believe their child is getting entirely or mostly whole group instruction, although only 29 percent of teachers say that's how they teach. A scant four percent of parents say their child is receiving entirely or mostly tailored instruction, while 19 percent of teachers report using this approach.

The remaining parents, about 25 percent, are under the impression that their child is receiving an even mix of whole group and tailored instruction. By contrast, twice as many teachers say this mix most closely reflects what they're doing.

Do Teachers Want to Learn More about Learner Variability?

Teachers express interest in professional development associated with tailored instruction and learner variability alike. Half are extremely or very interested in professional development to help them try to understand students' individual learner variability; an additional 43 percent are interested but less acutely. Similarly, if the goal is to help them prepare tailored instruction plans, 44 percent of teachers are highly interested, with moderate interest from an additional 42 percent.

Interest in these professional development topics is closely associated with teacher experience, with newer teachers expressing higher interest:

- Six in 10 teachers with less than 10 years' experience are highly interested in professional development focused on learner variability.

- 53 percent of those with 10–19 years of experience are highly interested, compared with 34 percent of those with 20 or more years in the field.

Similar results are found for professional development aimed at developing a tailored instruction plan, with high-level interest from 55 percent of teachers with less than 10 years' experience, 45 percent of those with 10 to 19 years' experience, and 29 percent of those with at least 20 years of teaching experience.

Teachers' Tenure and Interest in PD

Percent Interest

	<10 years	10-19 years	20+ years
Interest in PD for Learner Variability	60%	53%	34%
Interest in PD for Tailored Instruction	55%	45%	29%
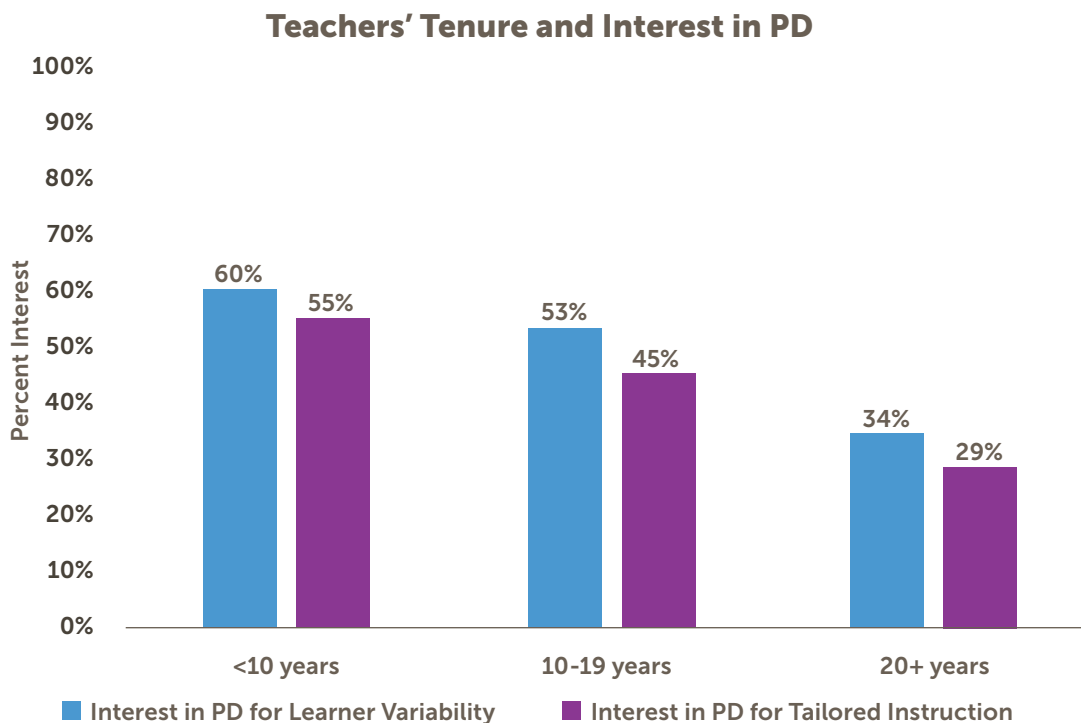
Supporting their interest, 90 percent of teachers see professional development focused on learner variability as effective. But it's not the only approach. Eighty-six percent also see edtech designed to address learner variability as effective. Seventy-two percent say the same about textbooks and other teaching materials that include learner variability.

Ways to help schools address learner variability % saying strategy is very or somewhat effective			
	General Public	**Parents**	**Teachers**
Professional development opportunities focused on learner variability	87%	89%	90%
Edtech designed to address learner variability	87	88	86
Textbooks and teaching materials that are inclusive of learner variability	80	84	72

Parents and the public are more apt than teachers to see textbooks and other teaching materials as effective (84 percent and 80 percent versus 72 percent). Twenty-two percent of parents see these as very effective (as do 17 percent of all adults), compared with just eight percent of teachers.

What's Important in Education?

Results on what's important in K-12 education mark public priorities for the schools—and illustrate widely held doubts about standardized testing. Out of nine items, three are seen as extremely or very important by at least eight in 10 of all adults, parents, and teachers alike:

- Teaching students to be respectful and value one another
- Helping students reach their individual potential
- Preparing students to be good citizens

Broad majorities also see three additional items as highly important: giving students a good understanding of the main academic subjects; working with their individual interests, strengths, and challenges; and preparing students to get good jobs. Nearly 80 percent of all adults call these extremely or very important.

Among other goals, seven in 10 of all adults and 76 percent of parents see teaching students to be collaborative as highly important, rising to 80 percent among teachers. Fifty-seven percent of all adults say preparing students to get into college is highly important; a similar number of teachers agree (56 percent), rising to 72 percent among public school parents.

In comparison, those who see preparing students to do well on standardized tests as extremely or very important include just 48 percent of parents, 41 percent of all adults, and 24 percent of teachers.

Goals of K-12 Classroom
General public: % rating item highly important

Teaching students to be respectful and value one another	88%
Helping students reach their individual potential	87%
Preparing students to be good citizens	83%
Giving students a good understanding of the main academic subjects	79%
Working with students' interests, strengths, and challenges	78%
Preparing students to get a good job	77%
Teaching students to be collaborative	70%
Preparing students to get into college	57%
Preparing students to do well on standardized tests	41%

When asked to name the single most important goal of a public education, all adults, parents, and teachers put the same goal at the top of their lists: helping students reach their individual potential. The number two choice for parents and all adults was teaching students to be respectful and value one another; for teachers, it was preparing students to be good citizens.

Notably, just one percent of all adults and parents named preparing students to do well on standardized tests as their top choice; no teachers did so.

Different perspectives on what's important in education

There are some differences in how groups rate these items. While 50 percent of whites see preparing students to get into college as highly important, this rises to 67 percent among Black respondents and 72 percent among Hispanic respondents. It follows that 63 percent of Black respondents and 54 percent of Hispanic respondents see preparation for standardized tests as extremely or very important versus 35 percent of whites. Whites also are less apt than others to prioritize teaching students to be collaborative.

Adults with a postgraduate degree are more likely than those with less education to ascribe importance to giving students a good understanding of the main academic subjects (87 percent do so). Those without a college degree, for their part, are 20 points more likely to prioritize standardized test preparation than those who do (48 percent versus 28 percent).

Overall, parents, the public, and teachers say public schools are not giving as much attention as they would like to the goals they prioritize. More than half of all adults say schools give too little attention to each of these items:

1. Preparing students to be good citizens (56 percent)

2. Teaching them to be respectful and value one another (55 percent)

3. Helping them reach their individual potential (55 percent)

4. Working with their individual interests, strengths, and challenges (54 percent)

Half of all adults also say schools pay too little attention to preparing students to get a good job.

By contrast, very few say schools give too little attention to preparing students to do well on standardized tests—16 percent of all adults, 11 percent of parents, and just three percent of teachers. Instead, 41 percent of all adults and 38 percent of parents say their local schools spend too much time on these, and this rises sharply to 65 percent of public school teachers.

Schools' attention to key goals
% reporting too little attention

	General Public	Parents	Teachers
Preparing students to be good citizens	56%	42%	40%
Teaching students to be respectful and value one another	55	37	41
Helping students reach their individual potential	55	46	37
Working with students' individual interests, strengths, and challenges	54	47	41
Preparing students to get a good job	50	44	36
Teaching students to be collaborative	34	22	24
Giving students a good understanding of the main academic subjects	27	14	11
Preparing students to get into college	24	24	14
Preparing students to do well on standardized tests	16	11	3

Notably, on nearly all these measures, the general public is more critical of their local schools than either K-12 parents or teachers—both groups that likely have more direct, current experience of the schools' focus.

When parents are asked what their own child's school focuses on, two items top the list: working with students' individual interests, strengths, and challenges, and helping them reach their individual potential. Forty-five and 44 percent, respectively, say their school pays too little attention to these. An additional 37-39 percent see too little attention on teaching respect, citizenship, and job preparation.

One result stands out as receiving too much attention: preparation for standardized tests, seen that way by 32 percent of parents.

How much attention do you think your child's school currently gives to each of these?

% among public school parents

	Too little attention	The right amount of attention	Too much attention
Working with students' individual interests, strengths, and challenges	45%	50%	3%
Helping students reach their individual potential	44	52	3
Preparing students to get a good job	39	56	3
Preparing students to be good citizens	38	57	4
Teaching students to be respectful and value one another	37	58	5
Preparing students to get into college	22	68	9
Teaching students to be collaborative	21	73	5
Giving students a good understanding of the main academic subjects	16	79	4
Preparing students to do well on standardized tests	13	54	32

How Should Schools Measure Student Learning?

At least eight in 10 members of the public, parents, and teachers rate two forms of assessment as effective in measuring what students learn:

- Student grades in individual classes, based on tests, quizzes, papers, projects, and participation; and

- A collection or portfolio of student work produced over the course of the school year.

Fewer see scores on standardized college entrance exams as effective measurements—64 percent of parents, 60 percent of the public, and just 44 percent of teachers. Fewer still see scores on state standardized tests as effective in measuring what students learn—58 percent of parents, 52 percent of the public, and 32 percent of teachers. While comparative skepticism toward testing is apparent across the board, it's especially pronounced among teachers.

Parents, teachers, and the public share doubts about the effectiveness of standardized tests to indicate a student's future success. Again, teachers are especially skeptical. Large majorities of teachers see standardized tests as very poor or poor indicators of a student's future satisfaction in life (89 percent), financial success (80 percent), or professional success (72 percent).

Compared to teachers, fewer parents and adults (53 percent alike) see standardized tests as a poor indicator of professional success. Sixty percent to 66 percent say test scores are weak indicators of financial success or personal satisfaction.

State standardized tests fare better among all three groups as indicators of a student's future academic success; 62 percent of parents, 60 percent of the public, and 53 percent of teachers say they're at least "good" indicators. Still, 47 percent of teachers, 38 percent of the public, and 37 percent of parents say they're very poor or poor indicators of future academic success.

Are Students Capable of Learning at High Levels?

Eighty percent of teachers, 75 percent of parents, and 71 percent of all adults say nearly all or most students are capable of high levels of educational achievement, given the right environment and support.

The question, then, is how best to unlock that learning potential. At least three-quarters of all adults, parents, and teachers identify several strategies as extremely or very important in helping students reach their full potential:

- Support from parents and other adults outside of school

- Teach students the importance of not giving up

- Develop students' ability to get started on their work on their own

The three groups point to four other factors as being important, albeit less broadly: professional development for teachers; providing tailored instruction that addresses individual learner variability; teaching students how to work collaboratively; and supporting instruction with edtech.

Among the eight items listed, using tests to assess student progress is least likely to be seen as highly important in helping students reach their full potential as learners— just 39 percent of parents, 33 percent of all adults, and 19 percent of teachers say it is. Still, an additional 42 percent of parents, 45 percent of all adults, and 52 percent of teachers rate this as important but not extremely or very important.

Strategies for helping students reach their full potential % saying extremely or very important			
	General Public	Parents	Teachers
Support from parents/other adults outside of school	81%	81%	86%
Teaching the importance of not giving up	79	85	88
Developing students' ability to get started on their work on their own	75	81	85
Professional development for teachers	70	76	65
Providing tailored instruction	66	69	61
Teaching students to work collaboratively in groups	61	66	70
Supporting instruction with edtech	59	68	51
Testing to assess student progress	33	39	19

What Role does Edtech Play in Individualizing Learning?

Eighty-five percent of teachers say edtech improves students' learning experiences, as do 77 percent of parents and all adults alike. That's a slight positive shift among teachers and parents from the spring 2019 Digital Promise study.

Edtech and student potential. There's a gap in how teachers and parents view edtech's importance in helping students reach their full potential as learners. While 68 percent of parents call it extremely or very important, fewer teachers (51 percent) share that view. Another 36 percent of teachers call edtech important, albeit not highly.

Edtech and improving learning experiences. While a majority believes edtech improves

students' learning experiences, only 14 percent of teachers and 20 percent of parents and all adults say it "greatly" improves learning experiences. Nine percent to 13 percent across the three groups say edtech has no effect on students' learning experiences; six percent to nine percent say edtech diminishes them.

Classroom use of edtech. Twenty-eight percent of teachers report using edtech in the classroom every day; another 30 percent use it most days. Among the rest, 27 percent use it some days, six percent a few days per month, and six percent less often than that. Very few teachers—just two percent—say they use no edtech at all.

Teachers' Frequency of Edtech Use

Category	Percentage
Every Day	28%
Most Days	30%
Some Days	27%
Few Days/Month	6%
<Few Days/Month	6%
Do not use it at all	2%
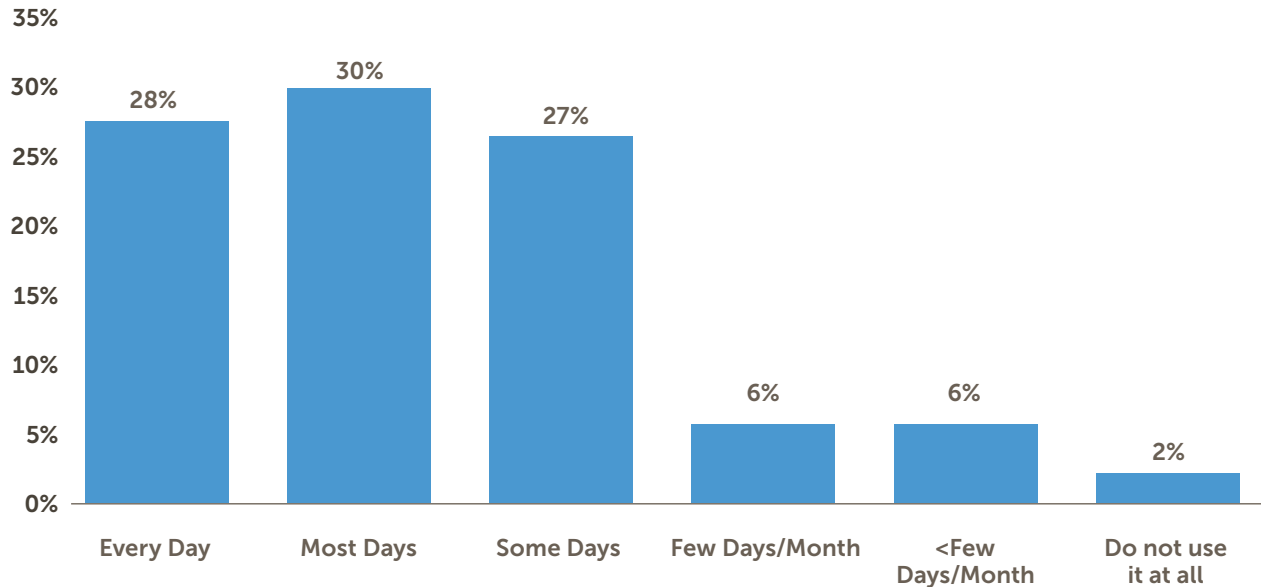
Nearly six in 10 teachers who use edtech in the classroom see their students as engaged with it, but far fewer (17 percent) say their students are "very" engaged.

Fewer teachers use edtech in homework or other out-of-classroom assignments—one-third never do this. Four percent use it in this context every day, 12 percent most days, 23 percent some days, 11 percent a few days a month, and 16 percent less often than that. Among the reasons teachers cited for this practice was the lack of access at home and not wanting to add to students' screen time.

The small percentage of teachers (two percent) who do not use edtech in the classroom reported that it was not available in their school or not available in their speciality.

Edtech and learner variability. Teachers who use edtech say they do so because they believe it supports their work with individual students' learner variability. Ninety-three percent call this an important factor in deciding which edtech to use, including 41 percent who say it's very important.

Indeed, among three options, teachers are most apt—by a vast 56-point margin—to say the main reason they use edtech in the classroom is to provide different instructional support for different students. Sixteen percent say it's to provide the same instructional support for all students, while eight percent use edtech to keep some students occupied while they work directly with others. Using edtech to provide different instructional support for different students is more prevalent in schools with fewer than 1,000 students (75 percent) than in larger schools (49 percent).

Why teachers use edtech in the classroom			
	All teachers	**<1,000 students**	**1,000+ students**
Provide different support to different students	72%	75%	49%
Provide the same support to all students	16	13	36
Occupy some students while working directly with others	8	8	4

Again, among teachers who use edtech, 76 percent often or sometimes use data from edtech products to help them support individual students' learner variability. Most (53 percent) do this sometimes; 23 percent do this often.

Teacher input in edtech choice. Teachers report varying degrees of involvement in selecting the edtech to use in the classroom:

- 15 percent say they have a lot of input
- 25 percent report having "a good amount" of input
- 26 percent say they have "some" input
- 19 percent say they have "a little" input
- 14 percent report having no input at all

Teachers who report having a lot or a good amount of input on selecting edtech for the classroom are three times as likely as others to say the edtech they use is very effective in helping them support individual students' learner variability (30 percent

> Among teachers who use edtech, 76 percent often or sometimes use data from edtech products to help them support individual students' learner variability.

versus 10 percent). Those with more input also are almost twice as likely to say they often use data from edtech products to help them support individual students' learner variability (33 percent versus 17 percent).

Comfort with edtech. Most teachers (79 percent), parents (72 percent), and adults (65 percent) say they are comfortable using new computer software and apps themselves. Comfort with new technology is associated with more positive views of edtech among all three groups.

Teachers who report higher comfort with new computer software and apps in general are more apt to:

- Use edtech frequently to address learner variability—40 percent say they use it often for this reason versus 14 percent of those who are less comfortable.

- More likely to use it in a tailored fashion. Seventy-seven percent of teachers who are comfortable with technology generally say they use edtech mainly to provide different instructional support for different students, versus 59 percent of those who are less comfortable.

Of those less comfortable with edtech, 23 percent say they mainly use edtech in the classroom to keep some students occupied while working directly with others. Just five percent of those with higher tech comfort say the same.

In another gauge of edtech's effects, among all adults and teachers alike, more say it increases rather than decreases opportunities for students to work together, by 15 and 14 points, respectively. Parents divide more evenly on this question. Again, tech comfort is a differentiator: Both teachers and parents who are more comfortable with new technology are about twice as likely as those who are less comfortable to say edtech increases opportunities for students to work together.

How Do Teachers Decide What Instructional Strategies to Use?

As in last year's survey, teachers say they are most likely to rely on their experience (94 percent) and instincts (89 percent) in doing their work. Majorities also rely on their education and professional development (71 percent), teacher peers (65 percent), and educational resources, such as teaching guides, textbook guides, or curriculum (62 percent).

What teachers rely on	
Experience	94%
Instincts	89
Education/professional development	71
Teacher peers	65
Educational resources	62
Academic research	49
Administrators	27

Half of teachers (49 percent) say they rely a great deal or a good amount on academic research, while an additional 40 percent say they use academic research to some extent, rather than "a little" or none. The smallest percentage (27 percent) rely on input from school administrators.

Delving further into teachers' attitudes toward academic resources:

- Teachers in schools with fewer than 1,000 students are more apt than those in larger schools to rely on academic research in their work as teachers (51 percent versus 31 percent).

- A plurality sees academic research in education as relevant to their work as teachers, but not highly so. Thirty-five percent say it's extremely or very relevant, 49 percent call it relevant, and 14 percent say it's not so or not at all relevant.

Teachers are far and away most apt to cite a lack of time as a major factor in keeping them from following more academic research, compared with 33 percent who say the same about paywalls and other costs. Twenty-eight percent say they don't read academic research on education because it doesn't seem applicable to a real-world setting.

Fewer report challenges in finding relevant research, having a lack of interest, or saying research isn't written in an accessible manner. Still, perceived relevancy is related to reading academic research; there's a 42-point gap in reading it at least monthly between those who see it as extremely or very relevant (69 percent) and those who consider it just "relevant" (27 percent). This likely is a cyclical relationship, in which teachers both make time to read such research because they find it relevant and find it relevant by virtue of having read it.

Reading academic research is related to overall job satisfaction, which may be taken as a sign of commitment to the field. Fifty-one percent of teachers who are very satisfied with their work read academic research at least monthly, versus 31 percent of those who are less satisfied. Another factor, though a minor one, is experience; those with 10 or more years' experience are slightly more apt to report reading academic articles at least monthly than those with less experience.

Why teachers don't follow more academic research about education

Legend:
- Lack of time
- Paywalls and other costs to access
- It doesn't seem applicable to a real-world setting
- It's not written in an accessible manner
- It's hard to find relevant research
- Not especially interested

Bar values: 75%, 33%, 28%, 17%, 16%, 15%
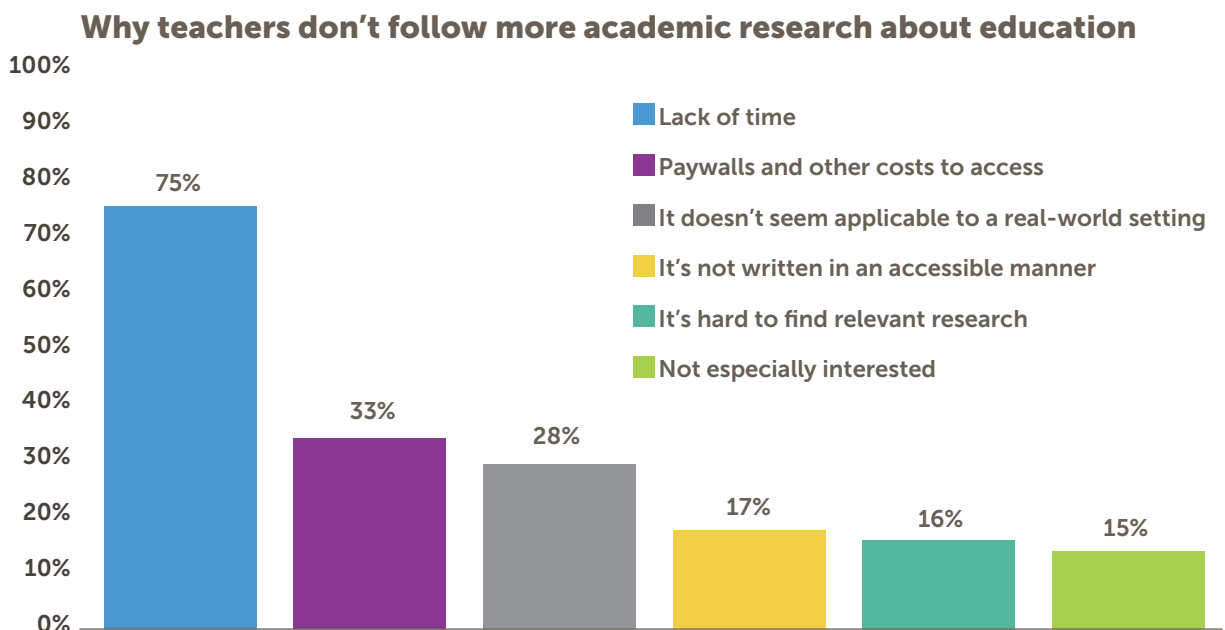
Are Teachers Satisfied with Their Work?

Eighty-one percent of teachers report being satisfied in their professional role as an educator. That includes about 33 percent who are very satisfied and 47 percent who are satisfied. Only nine percent say they're neither satisfied nor dissatisfied and another nine percent are dissatisfied.

Very satisfied teachers differ from others in some ways. They are more likely to say they:

- Have the right training and enough support to address learner variability;

- Believe their school pays the right amount of attention to preparing students to be good citizens;

- See students' grades in individual classes as an effective way to measure what they learn; and

- Report reading academic research or research summaries about education monthly or more often.

There are other gaps. Twenty-two percent of teachers with less than 10 years' experience are very satisfied, compared with 44 percent of those with 20 or more years on the job. Additionally, 23 percent of teachers in schools with 1,000 or more students report feeling very satisfied, compared with 38 percent in schools with fewer than 500 students, a marginally significant difference.
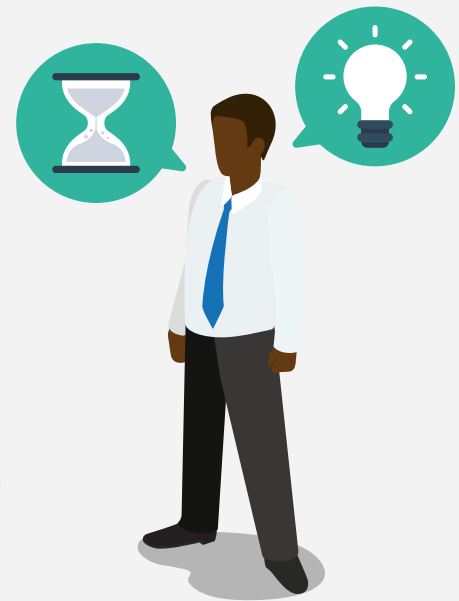
Conclusions

This study shows very broad understanding of students' learner variability and a desire for the nation's schools to address it—and yet, there is substantial uncertainty about ways forward.

Adults, public school parents, and public school teachers themselves are skeptical that teachers have the support, time, and training to address learner variability. That contributes to a vast gap between support for schools working with learner variability and a sense of what they're actually now doing—"teaching to the middle," in the minds of 75 percent of Americans overall.

Awareness of learner variability is accompanied by overwhelming support for using tailored instruction to address it. A gap emerges between what most parents say their child is receiving—whole group instruction—and the far smaller number of teachers who say that's actually the case.

Professional development on learner variability is of interest to teachers, especially to newer members of the profession. Openness to edtech as well as its widespread use also are evident, albeit with impediments, including barriers in out-of-classroom use as not all learners have access to high-speed internet at home. Ninety-three percent of teachers who say they use edtech also report they do so to support their efforts to address learner variability.

The study shows that teachers, parents, and all adults alike focus far beyond standardized test scores in assessing what's important in a public school education. Realizing individual potential, learning to respect and value one another, and preparing for good citizenship emerge as top goals for students, with preparation for standardized testing last on the list. Indeed, ongoing grades in class and portfolios of student work are seen as better indicators of student progress than scores on standardized tests. And, testing finishes last on the list of items seen as highly important in helping students achieve their potential.

Finally, the study confirms a substantial shortfall in teachers' reliance on academic research to inform their work. Experience and instincts come first, perhaps for strong practical reasons. That said, many educators would agree that academic research findings offer rich insights into educational practice that, when unlocked, can help achieve the widely shared goal of helping students reach their full potential as learners. Making that work more available and more accessible to frontline teachers is another positive step suggested by the study.

Acknowledgements

Appendices

Appendix A: Methodology

The 2020 Digital Promise Learner Variability Project survey was conducted using the nationally representative Ipsos KnowledgePanel®, in which participants are randomly recruited via address-based sampling to participate in survey research projects by responding to questionnaires online. Households without internet connections are provided with a web-enabled device and free internet service.

The survey was designed to include approximately 1,000 adults in the general population, an oversample to 500 parents of public school students in grades K-12 and, separately, 500 K-12 public school teachers. The oversample of parents was weighted to reflect its correct proportion in the general population.

The survey questionnaire was pretested September 11-12, 2019, and field work was conducted September 23-October 8. After initial invitations, email reminders were sent to all nonresponders on the third, sixth, ninth and 12th days of the field period. Out of 4,054 panel members invited to participate, completed, qualified surveys were provided by 1,933. Participants completed the survey in a median time of 12 minutes.

Quality control flagged respondents who completed the overall survey or Q22 specifically in the top two percent fastest times. Eighty-three cases were removed from the dataset on these grounds (29 non-parent non-teachers, 33 parents, 19 teachers and two parent/teachers). An additional five cases in the teachers sample were identified as guidance counselors rather than teachers, and also were removed.

The sample composition after quality control was 1,366 general population adults, including 504 K-12 public school parents; and 500 public school teachers, including

16 from the general population sample and 484 who were sampled separately.

For the general population and parents, data were weighted via iterative proportional fitting to the following benchmark distributions of adults from the U.S. Census Bureau's March 2017 Current Population Survey:

- Age (18-29, 30-44, 45-59, 60+) by gender (male, female)
- Race/ethnicity (white, black, other, Hispanic, 2+ races)
- Census region (Northeast, Midwest, South, West) by metropolitan status (metro, non-metro)
- Education (less than high school, high school, some college, bachelor or higher)
- Household income (less than $25,000, $25,000-$49,999, $50,000-$74,999, $75,000-$99,999, $100,000-$149,999, $150,000+)
- Language proficiency (English-proficient Hispanic, bilingual Hispanic, Spanish-proficient Hispanic, non-Hispanic)
- Parents with children ages 6-18 (yes, no)
- Marital status (married, not married)
- Hispanic nativity (U.S.-born Hispanic, not U.S.-born Hispanic, non-Hispanic)

For public school teachers, data were weighted via iterative proportional fitting to the following benchmark distributions for teachers from the full KnowledgePanel:

- Age (18-29, 30-44,45-59, 60+)
- Gender (male, female)
- Race/ethnicity (white, black, Hispanic, other/2+ races)
- Census region (Northeast, Midwest, South, West)
- Metropolitan status (metro, non-metro)

- Education (less than high school, high school, some college, bachelor or higher)

- Household income (less than $50,000, $50,000-$74,999, $75,000-$99,999, $100,000-$149,999, $150,000+)

- Marital status (married, not married)

- Hispanic nativity (U.S.-born Hispanic, not U.S.-born Hispanic, non-Hispanic)

Additional weighting benchmarks were obtained from the National Teacher and Principal Survey 2015-2016:

- School type (traditional public, charter)

- Grade (elementary school, middle school, high school, combined)

- Teaching year (<4, 4-9, 10-14, 15+)

- Number of students (less than 100, 100-199, 200-499, 500-749, 750-999, 1,000+)

General population weights were trimmed at 0.48 percent and 99.52 percent of their distribution for a design effect of 1.4. Teacher weights were trimmed at 3 percent and 97 percent of their distribution for a design effect of 2.5. The survey has margins of sampling error of plus or minus 3.1 percentage points for the general population, 5.2 points for parents and 6.9 points for teachers. Error margins are larger for subgroups.

Appendix B: Topline Data Report

Full results of the 2020 Digital Promise Learner Variability Project study follow. "All" refers to the general public, including parents and non-parents alike. "Skipped" refers to respondents who did not answer the question when there were no "prefer not to answer" or "no opinion" response options provided on screen. An asterisk in columns means <0.5 percent.

1. Thinking about education in the K-12 grades, how important is each of these?

a. Giving students a good understanding of the main academic subjects

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	79	46	33	19	1	*	*	1
PS parents	85	48	37	13	*	*	0	1
PS teachers	86	46	40	14	*	*	0	1

b. Preparing students to get into college

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	57	30	27	35	7	6	1	1
PS parents	72	41	31	25	3	2	*	*
PS teachers	56	23	33	36	7	7	*	1

c. Preparing students to do well on standardized tests

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	41	22	20	34	23	19	4	1
PS parents	48	28	20	30	21	17	5	*
PS teachers	24	7	17	45	30	24	6	1

d. Preparing students to get a good job

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	77	44	33	19	3	2	1	1
PS parents	80	46	34	16	3	3	0	*
PS teachers	81	40	40	18	1	1	0	*

e. Teaching students to be collaborative

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	70	34	36	26	3	2	*	1
PS parents	76	36	39	22	2	2	*	*
PS teachers	80	42	39	18	1	1	*	1

f. Teaching students to be respectful and value one another

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	88	65	23	9	1	1	*	1
PS parents	91	67	25	8	1	1	0	*
PS teachers	93	78	15	6	*	*	0	1

g. Preparing students to be good citizens

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	83	56	27	15	2	1	*	1
PS parents	86	56	30	13	1	1	*	1
PS teachers	93	70	23	6	*	*	0	1

h. Working with students' individual interests, strengths, and challenges

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	78	47	32	20	1	1	*	1
PS parents	82	51	30	17	1	1	0	*
PS teachers	82	47	35	16	1	1	0	1

i. Helping students reach their individual potential

10/8/19	More Important				Less Important			
	NET	Extremely	Very	Important	NET	Not so	Not at All	Skipped
All	87	57	30	11	1	*	*	1
PS parents	93	62	30	7	0	0	0	*
PS teachers	93	68	26	6	*	*	0	1

2. [ASK IF SAID "EXTREMELY IMPORTANT" TO MORE THAN ONE ITEM IN Q1] You said these items are extremely important in K-12 education. Which one would you say is the single most important?

10/8/19	All	PS Parents	PS Teachers
Giving students a good understanding of the main academic subjects	8	7	4
Preparing students to get into college	6	11	1
Preparing students to do well on standardized tests	1	1	*
Preparing students to get a good job	6	8	3
Teaching students to be collaborative	1	*	*
Teaching students to be respectful and value one another	24	20	22
Preparing students to be good citizens	13	8	26
Working with students' individual interests, strengths, and challenges	13	14	8
Helping students reach their individual potential	27	30	35
Skipped	1	*	*

3. How much attention do you think the schools in your community currently give to each of these

a. Giving students a good understanding of the main academic subjects

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	5	65	27	3
PS parents	6	77	14	2
PS teachers	4	84	11	*

b. Preparing students to get into college

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	18	56	24	3
PS parents	14	62	24	1
PS teachers	18	69	14	*

c. Preparing students to do well on standardized tests

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	41	40	16	3
PS parents	38	49	11	2
PS teachers	65	32	3	*

d. Preparing students to get a good job

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	4	44	50	3
PS parents	4	52	44	1
PS teachers	1	63	36	*

e. Teaching students to be collaborative

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	5	59	34	3
PS parents	6	71	22	1
PS teachers	4	71	24	*

f. Teaching students to be respectful and value one another

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	3	40	55	2
PS parents	4	58	37	1
PS teachers	1	58	41	*

g. Preparing students to be good citizens

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	2	39	56	3
PS parents	4	52	42	2
PS teachers	*	59	40	*

h. Working with students' individual interests, strengths, and challenges

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	3	41	54	3
PS parents	5	47	47	2
PS teachers	3	56	41	1

i. Helping students reach their individual potential

10/8/19	Too Much Attention	The Right Amount of Attention	To Little Attention	Skipped
All	2	40	55	3
PS parents	4	49	46	2
PS teachers	*	63	37	*

4. [IF HAS CHILD IN PUBLIC SCHOOL] How much attention do you think your child's public school currently gives to each of these?

10/8/19 — Summary Table	Too Much Attention	Right Amount of Attention	Too Little Attention	Skip
a. Giving students a good understanding of the main academic subjects	4	79	16	1
b. Preparing students to get into college	9	68	22	1
c. Preparing students to do well on standardized tests	32	54	13	2
d. Preparing students to get a good job	3	56	39	1
e. Teaching students to be collaborative	5	73	21	*
f. Teaching students to be respectful and value one another	5	58	37	*
g. Preparing students to be good citizens	4	57	38	1
h. Working with students' individual interests, strengths, and challenges	3	50	45	2
i. Helping students reach their individual potential	3	52	44	1

5. [IF PS TEACHER] How much attention does the school where you work currently give to each of these?

10/8/19 — Summary Table	Too Much Attention	Right Amount of Attention	Too Little Attention	Skip
a. Giving students a good understanding of the main academic subjects	4	79	16	1
b. Preparing students to get into college	9	68	22	1
c. Preparing students to do well on standardized tests	32	54	13	2
d. Preparing students to get a good job	3	56	39	1
e. Teaching students to be collaborative	5	73	21	*
f. Teaching students to be respectful and value one another	5	58	37	*
g. Preparing students to be good citizens	4	57	38	1
h. Working with students' individual interests, strengths, and challenges	3	50	45	2
i. Helping students reach their individual potential	3	52	44	1

6. Given the right environment and support, how many students do you think are capable of high levels of educational achievement?

10/8/19	More			Less			Skipped
	NET	Nearly All	Most	NET	Some	A Few	
All	71	19	53	28	24	4	*
PS parents	75	23	51	25	21	5	*
PS teachers	80	27	53	20	18	1	*
4/16/19							
All	77	21	56	22	19	2	2
PS parents	75	24	51	22	19	3	3
PS teachers	89	25	63	10	9	*	2

7. How effective do you think these are at measuring what students learn?

a. Students' scores on state standardized tests

10/8/19	More Effective			Less Effective			Skipped
	NET	Very	Somewhat	NET	Not so	Not at all	
All	52	7	45	46	36	9	2
PS parents	58	12	46	42	33	8	*
PS teachers	32	2	30	67	48	20	*

b. Students' grades in individual classes on the basis of tests, quizzes, papers, projects, and participation

10/8/19	More Effective			Less Effective			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
All	86	23	63	12	11	2	2
PS parents	88	30	58	12	11	1	*
PS teachers	86	19	67	14	13	1	*

c. Students' scores on standardized college entrance exams, such as the SAT or ACT

10/8/19	More Effective			Less Effective			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
All	60	9	51	38	31	7	2
PS parents	64	14	50	35	28	7	1
PS teachers	44	4	40	55	44	12	1

d. A collection or portfolio of the work students have done over the course of the school year

10/8/19	More Effective			Less Effective			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
All	85	25	59	13	12	2	2
PS parents	85	28	57	15	14	1	*
PS teachers	88	43	45	12	10	2	*

8. Do you think a student's scores on state standardized tests are or are not a good indicator of these items?

a. The student's future academic success

| 10/8/19 | Better | | | | Worse | | | |
	NET	Extremely	Very Good	Good	NET	Poor	Very Poor	Skipped
All	17	3	14	42	38	30	8	3
PS parents	21	6	14	41	37	28	9	1
PS teachers	13	2	12	40	47	36	11	0

b. The student's future professional success

| 10/8/19 | Better | | | | Worse | | | |
	NET	Extremely	Very Good	Good	NET	Poor	Very Poor	Skipped
All	13	3	10	32	53	41	12	3
PS parents	15	4	11	30	53	40	13	1
PS teachers	5	1	4	23	72	56	16	*

c. The student's future financial success

| 10/8/19 | Better | | | | Worse | | | |
	NET	Extremely	Very Good	Good	NET	Poor	Very Poor	Skipped
All	11	3	9	24	62	48	15	3
PS parents	13	5	9	26	60	41	19	1
PS teachers	3	1	2	17	80	59	21	*

d. The student's future satisfaction in life

| 10/8/19 | Better | | | Good | Worse | | | Skipped |
	NET	Extremely	Very Good		NET	Poor	Very Poor	
All	10	3	8	21	66	45	21	2
PS parents	14	5	9	22	63	40	23	1
PS teachers	3	1	2	8	89	60	29	0

9. "Learner variability" refers to the abilities students have and the challenges they bring to the learning environment. Factors include their personal background and knowledge, their health and psychological wellbeing, and how they think, among other things. How much do you think students vary from one another in how they learn?

| 10/8/19 | More | | | Just some | Less | | | Skipped |
	NET	A great deal	A good amount		Net	A little	Not at all	
All	80	28	52	15	4	4	*	1
PS parents	81	29	53	15	3	3	*	*
PS teachers	88	37	51	11	*	*	0	0
4/16/19								
All	78	25	54	17	3	3	*	1
PS parents	80	25	55	15	4	4	0	2
PS teachers	83	33	50	14	2	2	0	1

10. [IF PARENT OF MULTIPLE CHILDREN] How much do you think your own children vary from one another in how they learn?

	More			Less			
	NET	A great deal	A good amount	Just some	Net	A little	Not at all	Skipped
10/8/19	68	23	45	24	8	7	1	0

11. [IF PS TEACHER] How much do your students vary from one another in how they learn?

	More			Less			
	NET	A great deal	A good amount	Just some	Net	A little	Not at all	Skipped
10/8/19	84	30	55	13	2	1	1	*

12. How much do you feel you know about learner variability?

10/8/19	More			Less			
	NET	A great deal	A good amount	Net	Just some	Little or nothing	Skipped
All	28	6	23	71	46	24	1
PS parents	37	9	28	62	44	18	1
PS teachers	74	19	55	25	24	2	1

13. How interested are you in information about learner variability?

10/8/19	More			Less			
	NET	Extremely	Very	Interested	Net	Not so	Not at all	Skipped
All	17	6	10	40	42	28	14	1
PS parents	28	9	19	42	29	23	7	1
PS teachers	48	19	28	45	7	7	*	*

14. Which of these do you think your community's schools do?

10/8/19	Try to understand and work with each student's individual learner variability	"Teach to the middle" by focusing on a class's average learning abilities rather than a student's individual one	Skipped
All	23	75	2
PS parents	29	71	1
PS teachers	40	59	1

15. [IF PS PARENT] Which of these do you think your child's public school does?

	Tries to understand and work with each student's individual learner variability	"Teaches to the middle" by focusing on a class's average learning abilities rather than a student's individual one	Skipped
10/8/19	28	71	1

16. [IF PS TEACHER] Which of these does the school where you work do?

	Tries to understand and work with each student's individual learner variability	"Teaches to the middle" by focusing on a class's average learning abilities rather than a student's individual one	Skipped
10/8/19	57	42	1

17. What do you think is better for your community's schools to do?

10/8/19	Work with individual learner variability			Focus on average learning abilities			Skipped
	NET	Strongly think it's better	Think it's better	Net	Think it's better	Strongly think it's better	
All	81	30	51	17	11	5	2
PS parents	81	35	47	18	12	6	1
PS teachers	88	29	59	11	9	3	*

18. [IF PS PARENT] What do you think is better for your child's public school to do?

	Work with individual learner variability			Focus on average learning abilities			
	NET	Strongly think it's better	Think it's better	Net	Think it's better	Strongly think it's better	Skipped
10/8/19	77	34	42	20	13	7	3

19. [IF PS TEACHER] What do you think is better for the school where you work to do?

	Work with individual learner variability			Focus on average learning abilities			
	NET	Strongly think it's better	Think it's better	Net	Think it's better	Strongly think it's better	Skipped
10/8/19	82	31	52	15	14	1	3

20. Regardless of what's better for schools to do, do you think most teachers have the (time}, (training) and (support) they need to work with each student's individual learner variability, or not?

10/8/19 – Summary Table	Yes	No	Skipped
a. Enough time			
All	17	82	2
PS parents	20	79	1
PS teachers	6	94	*
b. The right training			
All	37	62	2
PS parents	43	57	*
PS teachers	26	74	*
c. Enough support			
All	17	81	2
PS parents	24	76	*
PS teachers	10	90	*

21. [IF PS TEACHER] Do you feel that you yourself have the (time), (training) and (support) you need to work with each student's individual learner variability, or not?

10/8/19 – Summary Table	Yes	No	Skipped
a. Enough time	12	88	1
b. The right training	47	52	1
c. Enough support	26	73	1

22. In your opinion, how effective is each of these in helping schools address learner variability?

a. Offering teachers professional development opportunities focused on learner variability

10/8/19	More effective			Less effective			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
All	87	31	56	10	8	2	3
PS parents	89	36	53	9	7	2	1
PS teachers	90	29	61	10	9	1	*

b. Using educational technology (meaning computer software and apps used as learning resources) designed to address learner variability

10/8/19	More effective			Less effective			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
All	87	26	60	11	9	2	2
PS parents	88	32	56	11	9	3	1
PS teachers	86	23	63	14	13	*	*

c. Using textbooks and other teaching materials that are inclusive of learner variability

10/8/19	More effective			Less effective			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
All	80	17	63	17	15	2	3
PS parents	84	22	62	14	11	3	1
PS teachers	72	8	64	27	25	2	1

23. Which of these do you think is a better way for students to learn? Do you feel strongly that (ITEM SELECTED) is a better way for students to learn, or not strongly?

(Whole group instruction : Students learn content at the same pace – keeping the whole group together and working on the same things at the same time.)

-OR-

(Tailored instruction : Students learn content at a different pace, or with different instructional materials and support – instruction is adjusted based on an evaluation of how each student learns.)

10/8/18	Whole group				Tailored				
	NET	Strongly	Not strongly	No opinion	NET	Not Strongly	Strongly	No opinion	No opinion
All	17	9	7	*	83	15	67	1	0
PS parents	19	12	6	*	81	13	68	*	0
PS teachers	12	6	6	0	88	20	68	*	0

Compare to:

Which of these do you think is a better way for students to learn? Do you feel strongly that (ITEM SELECTED) is a better way for students to learn, or not strongly?

(Whole group instruction : Students learn the same content at the same pace – keeping the whole group together and working on the same things at the same time.)

-OR-

(Tailored instruction : Students learn different content at a different pace – instruction is adjusted for each individual based on an evaluation of how they learn.)

4/16/19	Whole group				Tailored				
	NET	Strongly	Not strongly	No opinion	NET	Not Strongly	Strongly	No opinion	No opinion
All	20	11	8	*	80	17	63	1	1
PS parents	21	14	6	0	79	15	63	1	*
PS teachers	14	7	8	0	86	16	67	2	0

24. In tailored instruction, schools produce a learning plan for each student. It includes subject material, assignments and projects designed for each student, and set to their own pace. This plan is reviewed regularly by teachers, parents, and students.
Some work is done by students as part of the full class, some in groups, and some individually. Would you support or oppose creating a tailored instruction program in your community's schools?

10/8/19	Support			Oppose			No opinion
	NET	Support strongly	Support	NET	Oppose	Strongly oppose	
All	95	35	60	5	4	1	0
PS parents	95	41	54	5	4	1	0
PS teachers	86	26	61	14	11	3	0
4/16/19							
All	90	27	63	9	7	2	1
PS parents	93	33	60	6	5	1	1
PS teachers	83	21	62	17	15	2	*

25. [IF PS PARENT] How interested are you in having your child's public school do these things?

a. Try to understand their individual learner variability

	More			Less			Skipped
	NET	Extremely	Very	Interested	Net	Not so	Not at all	
10/8/19	62	33	29	33	4	3	1	*

b. Develop a tailored instruction plan for them

	More			Less			Skipped
	NET	Extremely	Very	Interested	Net	Not so	Not at all	
10/8/19	62	30	31	31	6	6	1	*

26. [IF PS TEACHER] How interested are you in professional development to help you do these things?

a. Try to understand each of your students' individual learner variability

	More				Less			
	NET	Extremely	Very	Interested	Net	Not so	Not at all	Skipped
10/8/19	50	22	28	43	6	5	1	*

b. Develop a tailored instruction plan for each student

	More				Less			
	NET	Extremely	Very	Interested	Net	Not so	Not at all	Skipped
10/8/19	44	19	25	42	14	11	3	*

27. [IF PS PARENT] Would you be comfortable or uncomfortable with your child's public school using information about these things to try to understand their learner variability in order to create a tailored instruction plan?

a. Personal background such as their family circumstances

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	79	25	54	20	17	3	*

b. Their physical health

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	91	30	61	9	8	1	*

c. Their mental health

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	88	29	60	11	9	2	1

d. Their cognitive abilities, meaning how they learn things

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	94	39	56	4	3	1	2

28. [IF PS TEACHER] Would you be comfortable or uncomfortable using information about these things to try to understand your students' individual learner variability in order to create a tailored instruction plan?

a. Personal background such as their family circumstances

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	91	28	63	8	8	*	1

b. Their physical health

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	89	22	67	10	9	1	1

c. Their mental health

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	90	26	64	9	9	1	1

d. Their cognitive abilities, meaning how they learn things

	Comfortable			Uncomfortable			
	NET	Very	Comfortable	NET	Uncomfortable	Very	Skipped
10/8/19	97	39	59	2	2	*	*

29. [IF PS PARENT] As far as you are aware, overall, is your child in public school receiving (whole group) instruction or (tailored) instruction?

	Whole group				Tailored			
	NET	Entirely or almost entirely	Mostly	About half and half	Net	Mostly	Entirely or almost entirely	Don't know
10/8/19	71	27	44	24	4	3	1	*
4/16/19	69	28	41	22	9	7	2	*

30. [IF PS TEACHER] What kind of instructional technique do you use?

	Whole group				Tailored			
	NET	Entirely or almost entirely	Mostly	About half and half	Net	Mostly	Entirely or almost entirely	Don't know
10/8/19	29	4	24	52	19	14	5	*

31. [IF PS PARENT] Generally speaking, what percent of class time would you like your child's public school teachers to spend on each of these instructional approaches?

10/8/19				Percent of class time				
	0	**1-25**	**26-49**	**50**	**51-74**	**75-99**	**100**	**Skiped**
a. Teaching the whole class	1	26	20	19	13	12	3	5
b. Teaching small groups of students while other students students work on their own	2	44	35	11	3	1	*	6
c. Teaching students one-on-one while other students work on their own	3	52	21	14	2	1	1	7

32. [IF PS TEACHER] How often, if at all, do you use each of these approaches to try to address learner variability in your classroom?

a. Small-group instruction while other students work on their own

	More often			Less or never			
	NET	**Often**	**Sometimes**	**NET**	**Rarely**	**Never**	**Skipped**
10/8/19	92	47	45	7	5	2	1

b. One-on-one instruction while other students work on their own

	More often			Less or never			
	NET	**Often**	**Sometimes**	**NET**	**Rarely**	**Never**	**Skipped**
10/8/19	86	36	50	13	11	2	1

c. Educational technology, meaning computer software and apps used as learning resources

	More often			Less or never			
	NET	**Often**	**Sometimes**	**NET**	**Rarely**	**Never**	**Skipped**
10/8/19	81	35	46	16	12	5	2

d. After-class availability for students with questions

	More often			Less or never			
	NET	Often	Sometimes	NET	Rarely	Never	Skipped
10/8/19	64	34	30	34	19	15	1

e. Referring some students to a learning specialist

	More often			Less or never			
	NET	Often	Sometimes	NET	Rarely	Never	Skipped
10/8/19	63	19	43	35	23	12	2

f. Contacting parents to discuss their child's needs

	More often			Less or never			
	NET	Often	Sometimes	NET	Rarely	Never	Skipped
10/8/19	84	36	47	15	11	4	1

33. [IF PS TEACHER] Generally speaking, approximately what percent of class time would you say that you spend on each of these instructional approaches?

10/8/19	Percent of class time							
	0	1-25	26-49	50	51-74	75-99	100	Skiped
a. Teaching the whole class	1	16	17	21	21	17	1	5
b. Teaching small groups of students while other students students work on their own	2	46	30	7	8	2	0	5
c. Teaching students one-on-one while other students work on their own	4	69	14	4	3	3	*	3

34. [IF PS TEACHER] Ideally, approximately what percent of class time would you like to spend on each of these instructional approaches?

10/8/19	Percent of class time							
	0	1-25	26-49	50	51-74	75-99	100	Skiped
a. Teaching the whole class	3	35	24	16	9	7	2	5
b. Teaching small groups of students while other students students work on their own	2	31	36	14	10	2	*	5
c. Teaching students one-on-one while other students work on their own	3	49	28	7	3	5	1	3

35. In your opinion, how important is each of these in helping students reach their full potential as learners?

a. Teaching them the importance of not giving up

10/8/19	More important			Less important			
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	79	43	36	17	1	1	*	3
PS parents	85	47	38	14	*	*	0	1
PS teachers	88	59	28	11	*	*	0	1

b. Teaching them how to work collaboratively in groups

10/8/19	More important			Less important			
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	61	20	41	32	5	4	1	3
PS parents	66	23	42	31	2	2	0	1
PS teachers	70	28	42	26	4	4	*	1

c. Developing their ability to get started on their work on their own

10/8/19	More important				Less important			
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	75	33	42	21	1	1	*	3
PS parents	81	39	43	18	*	*	0	1
PS teachers	85	40	45	14	0	0	0	1

d. Using tests to assess their progress

10/8/19	More important				Less important			
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	33	10	24	45	19	17	2	2
PS parents	39	17	22	42	19	16	3	*
PS teachers	19	5	14	52	29	27	3	*

e. Providing tailored instruction that addresses their individual learner variability

10/8/19	More important				Less important			
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	66	27	39	29	2	2	*	3
PS parents	69	31	38	29	2	2	0	1
PS teachers	61	21	40	34	4	4	*	1

f. Supporting instruction with educational technology, meaning computer software and apps used as learning resources

10/8/19	More important				Less important			Skipped
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	59	20	39	32	6	5	1	3
PS parents	68	26	42	26	6	6	*	1
PS teachers	51	18	33	36	12	11	1	1

g. Support from parents and other adults outside of school

10/8/19	More important				Less important			Skipped
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	81	51	30	15	1	1	*	3
PS parents	81	48	33	17	1	1	0	1
PS teachers	86	59	27	13	*	*	0	1

h. Professional development for teachers

10/8/19	More important				Less important			Skipped
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	70	31	40	25	2	2	1	3
PS parents	76	35	41	20	2	2	1	3
PS teachers	65	30	35	29	6	5	1	1

36. [ASK IF SAID "EXTREMELY IMPORTANT" TO MORE THAN ONE ITEM IN Q35] You said these items are extremely important in helping students reach their full potential as learners. Which one would you say is the single most important?

	10/8/19		
	All	**PS parents**	**PS teachers**
Teaching them the importance of not giving up	20	22	33
Teaching them how to work collaboratively in groupsrt	2	4	5
Developing their ability to get started on their work on their own	12	12	9
Using tests to assess their progress	1	3	*
Providing tailored instruction that addresses their individual learner variability	20	20	17
Supporting instruction with educational technology, meaning computer software and apps used as learning resources	5	6	3
Support from parents and other adults outside of school	32	26	30
Professional development	7	7	3
Skipped	1	0	1

37. Educational technology means the use of computers, other internet-connected devices and educational software as learning resources. How do you think educational technology affects students' learning experiences?

| 10/8/19 | More important | | | | Less important | | | |
	NET	Extremely	Very	Important	Net	Not so	Not at all	Skipped
All	77	20	57	12	9	8	1	2
PS parents	77	20	57	13	9	7	2	1
PS teachers	85	14	70	9	6	5	1	*
4/16/19								
All	75	16	59	11	11	10	1	3
PS parents	69	15	54	12	16	14	2	3
PS teachers	78	14	64	12	8	7	1	1

38. [IF PS TEACHER] How much if at all do you use educational technology in your classroom?

	Every day	Most days	Some days	A few days per month	Less often than a few days per month	Not at all	Skipped
10/8/19	28	30	27	6	6	2	*
4/16/19	35	23	24	9	6	2	1

39. [IF PS TEACHER WHO DOES NOT USE EDTECH IN THE CLASSROOM] What's the main reason you do not use educational technology in your classroom?

40. [IF PS TEACHER] How much if at all do you use educational technology in your students' homework or other out-of-classroom assignments?

	Every day	Most days	Some days	A few days per month	Less often than a few days per month	Not at all	Skipped
10/8/19	4	12	23	11	16	32	2

41. [IF PS TEACHER WHO DOES NOT USE EDTECH IN HOMEWORK] What's the main reason you do not use educational technology in your students' homework or other out-of-classroom assignments?

42. Do you think educational technology…

10/8/19	Increases opportunities for students to work together	Decreases opportunities for students to work together	Has no effect on opportunities for students to work together	Skipped
All	42	27	28	2
PS parents	39	34	26	1
PS teachers	41	27	31	1

43. [IF PS TEACHER WHO USES EDTECH IN CLASSROOM] Which of these in the main reason you use educational technology in the classroom?

	To provide different instructional support for different students	To provide the same instructional support for all students	To keep some students occupied while you work directly with others	Skipped
10/8/19	72	16	8	4

44. [IF PS TEACHER WHO USES EDTECH] How effective is the educational technology you use in helping you support individual students' learning variability?

	More effective			Less effective			
	NET	**Very**	**Somewhat**	**NET**	**Not so**	**Not at all**	**Skipped**
10/8/19	88	18	70	10	9	1	2

45. [IF PS TEACHER WHO USES EDTECH] How often, if at all, do you use data from educational technology products to help you support individual students' learner variability?

	More often			Less or never			
	NET	**Often**	**Sometimes**	**NET**	**Rarely**	**Never**	**Skipped**
10/8/19	76	23	53	23	17	6	1

46. [IF PS TEACHER WHO USES EDTECH IN CLASSROOM] Generally speaking, how do most students using educational technology in your classroom respond to it?

	Engaged				Disengaged		
	NET	Very	Engaged	Neutral	NET	Disengaged	Very	Skipped
10/8/19	76	17	58	22	2	2	*	*

47. [IF PS TEACHER WHO USES EDTECH] How important is it to you that the educational technology you use supports individual students' learner variability?

	More Important			Less important			
	NET	Very	Somewhat	NET	Not so	Not at all	Skipped
10/8/19	93	41	52	6	6	*	1

48. [IF PS TEACHER WHO USES EDTECH IN CLASSROOM] How much input do you have into which educational technology you use in your classroom?

	More				Less			
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	40	15	25	26	33	19	14	1
4/16/19	43	17	26	29	27	16	11	1

49. [IF PS TEACHER] How much do you rely on each of these as a teacher?

a. Your experience

| | More | | | | Less | | | |
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	94	62	32	5	*	*	0	1
4/16/19	96	70	26	3	*	*	*	0

b. Your instincts

| | More | | | | Less | | | |
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	89	51	38	10	1	*	*	1
4/16/19	90	52	38	8	2	2	1	0

c. Academic research

| | More | | | | Less | | | |
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	49	12	37	39	12	10	2	1
4/16/19	53	21	32	36	11	7	4	0

d. Educational resources, such as teaching guides, textbook guides, or curriculum

| | More | | | | Less | | | |
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	62	19	43	31	6	4	3	1
4/16/19	61	27	34	27	12	10	2	0

e. Your education/professional development

	More				Less			
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	71	24	47	24	4	3	1	1
4/16/19	66	29	37	26	8	5	3	0

f. Teacher peers

	More				Less			
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	65	24	42	29	4	3	1	2
4/16/19	68	33	36	20	11	9	3	0

g. Administrators

	More				Less			
	NET	A great deal	A good amount	Some	NET	A little	Not at all	Skipped
10/8/19	27	6	21	46	27	22	5	1
4/16/19	32	8	24	35	33	23	9	0

50. [IF PS TEACHER] How often, if at all, do you read academic research or research summaries in the field of education?

	Weekly or more	Monthly or more, but not weekly	A few times a year	Every few years	Less often	Skipped
10/8/19	10	29	43	6	11	1

51. [IF PS TEACHER] How often, if at all, do you read non-academic publications — books, magazines or articles — about the field of education?

	Weekly or more	Monthly or more, but not weekly	A few times a year	Every few years	Less often	Skipped
10/8/19	10	27	42	10	10	*

52. [IF PS TEACHER] How much, if at all, do you think that academic research in the field of education is relevant to your work as a teacher?

	More relevant				Less relevant			
	NET	Extremely	Very	Relevant	NET	Not so	Not at all	Skipped
10/8/19	35	10	24	49	14	12	2	2

53. [IF PS TEACHER] To what extent, if at all, do the following items keep you from following more academic research in the field of education?

	Factor				
	NET	Major factor	Minor factor	Not a factor	Skipped
a. It's hard to find relevant research	67	16	50	33	1
b. Paywalls and other costs to access	71	33	38	28	1
c. It's not written in an accessible manner	59	17	42	40	1
d. It doesn't seem applicable to a real-world setting	74	28	46	25	1
e. Lack of time	94	75	20	4	2
f. Not especially interested	63	15	48	36	1

54. How would you describe your personal level of comfort using new computer software and apps?

10/8/19	Comfortable				Uncomfortable			
	NET	Very	Comfortable	Neither comfortable nor uncomfortable	NET	Uncomfortable	Very	Skipped
All	65	30	35	24	10	7	2	1
PS parents	72	34	38	21	6	4	2	0
PS teachers	79	36	43	13	7	5	1	1

55. [IF PS TEACHER] How satisfied are you in your professional role as an educator?

	Satisfied				Dissatisfied			
	NET	Very Satisfied	Satisfied	Neither satisfied nor dissatisfied	NET	Dissatisfied	Very dissatisfied	Skipped
10/8/19	81	34	47	9	9	7	2	1