TEACHING & LEARNING
IN THE TIME OF COVID-19
RESEARCH BRIEF:
EARLY CHALLENGES AND SOLUTIONS FROM TEACHERS

July 20, 2020

UTSA.

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ABOUT THE
URBAN EDUCATION INSTITUTE

OUR MISSION

The Urban Education Institute at UTSA produces scientific research to raise educational attainment, advance economic mobility, and help people achieve their potential in the greater San Antonio region.

We pursue our mission by (1) producing rigorous and actionable analysis that supports education policymaking, program implementation, and philanthropic giving; (2) convening community leaders to address entrenched challenges that harm education and human development; and (3) training the next generation of social scientists and educators to address education challenges through inquiry, analysis, and discovery.

INTRODUCTION

When COVID-19 hit in the spring of 2020, the research team at the Urban Education Institute at UTSA asked: "What can we do to help our community during this public health crisis?" Our answer was to document how COVID-19 affected teaching and learning in San Antonio, with the hope of learning from this experience.

This report represents the first product of this research and the first attempt to develop a community-wide survey program that takes the pulse of the most important members of our San Antonio educational ecosystem: students, their parents, and their teachers. Participating school districts include, in alphabetical order: East Central, Edgewood, Harlandale, Judson, Northside, North East, and Southwest. An eighth set of schools that partner with traditional school districts known as the Centers for Applied Science and Technology (CAST) Network also participated. The CAST schools in our sample include elementary, middle, and high schools located in San Antonio and Southwest ISDs. Their inclusion in this report presents an opportunity to understand how a school network more equipped for blended learning (online and in-person) weathered this sudden shift to emergency distance learning.

Survey data were collected from May 22 to July 1 from representative samples of teachers, parents, and high school students (16 and older) for each school district and the CAST Network. In total, 1,669 people participated: 545 teachers, 884 parents, and 240 older high school students.

This first report focuses largely on teachers' experiences. It is intended to help school leaders plan for the upcoming school year. In the interest of speed, we have performed a descriptive analysis of the data collected from teachers on their early challenges and experiences with distance learning. Future research briefs will take a deeper dive into the student and parent experience, as well as into the data and specific themes raised by the responses.

PARTICIPATING SCHOOL SYSTEMS

- CAST Schools
- East Central ISD
- Edgewood ISD
- Harlandale ISD
- Judson ISD
- North East ISD
- Northside ISD
- Southwest ISD
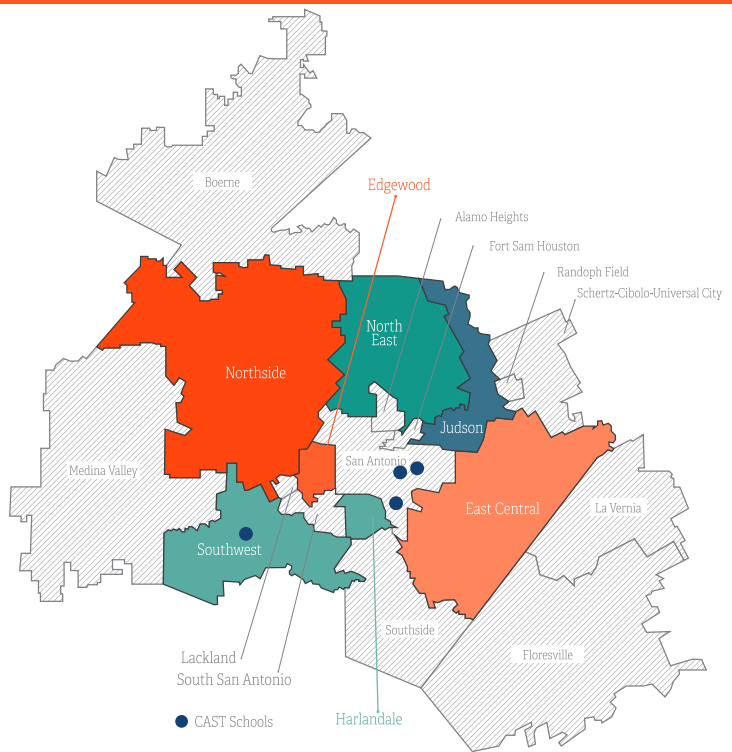
Map graphic created by MM Creative

KEY FINDINGS

As pandemic distance learning came to a close this spring, we asked teachers from across Bexar County to tell us how they and their students fared. Over and over, they said:

We miss our students. We're worried about them: too many are not showing up and not turning in assignments. We want to create thoughtful lessons –but we need more technology support, more training, more time for planning, and clearer expectations from administrators.

As teachers head into an uncertain fall, they're also wondering about how to pull off their most important task: authentically connecting with students so learning becomes a relational reality, driven by engagement and promise.

"The beauty of this (pandemic) happening in the end of the year was we had already established relationships and connections with the kids. If we start off the next school year (doing distance learning) we won't have that. Something will have to happen that helps build that relationship with students so they can be productive."
- Elementary school teacher

KEY FINDINGS SUMMARY

Teachers had many early challenges with distance learning; still, they are dedicated and resilient.

- 72 percent of teachers said they had early challenges with distance learning.
- However, 95 percent of teachers ultimately reported being moderately to extremely effective using technology to teach.

Teachers are adapting and figuring out distance learning.

- Most teachers - up to 95 percent – had no previous experience teaching online.
- Still, 91 percent gained new knowledge or skills that informed their distance learning instruction.
- Moreover, teachers in 6 out of 8 school systems said they performed differentiated instruction for students who were present more effectively through online technology.

Students were significantly less engaged during distance learning.

- About 60 percent of teachers said students turned in assignments less frequently compared to pre-pandemic schooling.
- Lessons that grabbed their students' attention and moved them forward in learning were significantly less frequent compared with normal schooling, according to 65 percent of all teachers surveyed.

Teachers and schools were challenged by the task of translating traditional methods to distance learning with little preparation time.

- Only 44 percent of teachers said they discovered an effective strategy for assessing student learning.

RESEARCH-BASED RECOMMENDATIONS FROM TEACHERS

Create a schedule that allows teachers to establish a social-emotional connection with students to improve engagement and accountability. For some students, this may mean an occasional in-person meeting or class. For others, a one-on-one video meeting.

Set and clearly communicate to teachers, parents, and students a uniform grading policy based on mastery, with a feedback function.

Minimize the time teachers spend on compliance reports, staff meetings, and as technology support for families/students. Streamline communication between teachers, parents, and students using smart tech solutions.

Schedule planning time ahead of the first day of school and throughout the year so teachers can plan asynchronous and synchronous learning.

Provide tech support for parents, students, and teachers so that teachers do not lose instruction time.

Continue closing the digital divide by distributing computer devices and internet hotspots to all students.

Support teachers in creating meaningful, asynchronous content for students that integrates with synchronous virtual or in-person learning.

Simplify the process students use logging into virtual educational platforms and improve the set-up of all platforms so grading is more automated.

Offer professional development on the social-emotional needs of students.

TEACHER CHARACTERISTICS

The 545 teachers surveyed in our study were from seven independent public school districts and the CAST Schools Network. The school districts include some of the area's largest and smallest ISDs: East Central, Edgewood, Harlandale, Judson, North East, Northside, and Southwest.

The average teacher completing the survey was in their mid-40s with 12 years of classroom teaching experience. Nearly all said they had no experience teaching online courses, with only 5 percent reporting they'd done such work previously. Only one percent of all elementary school teachers reported having ever taught online, and only seven percent of both middle and high school educators said they had such experience. So the sudden and unexpected shift to distance learning, with its focus on digital teaching, was a significant event requiring great flexibility and adaptability.
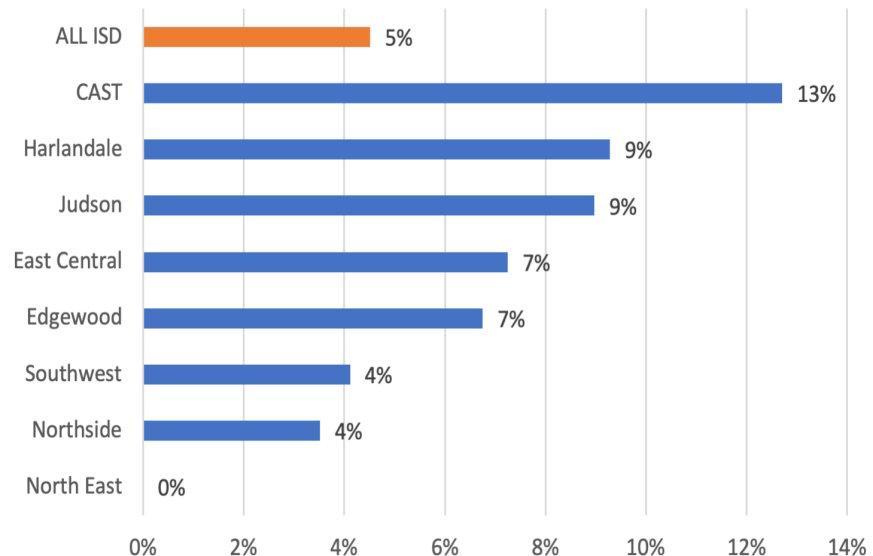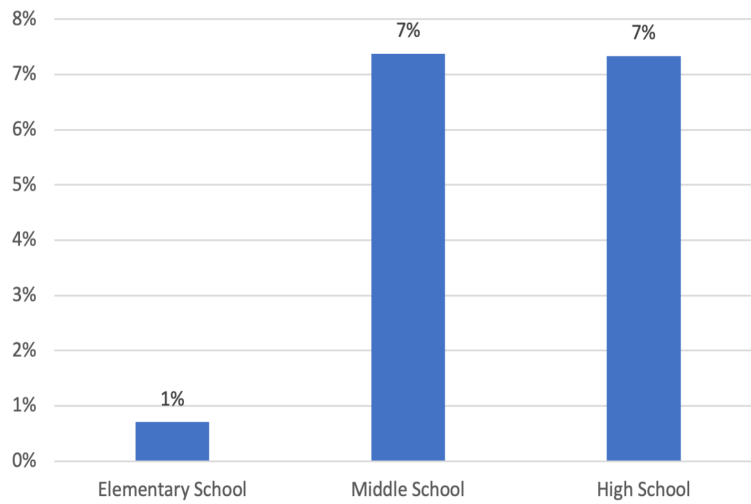
TEACHER CHARACTERISTICS
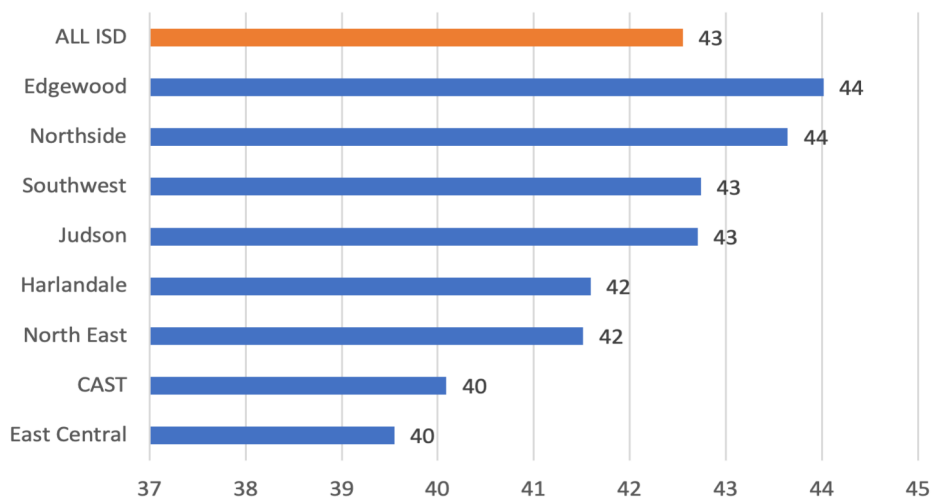
5% OF TEACHERS HAD **PREVIOUS EXPERIENCE** TEACHING ONLINE

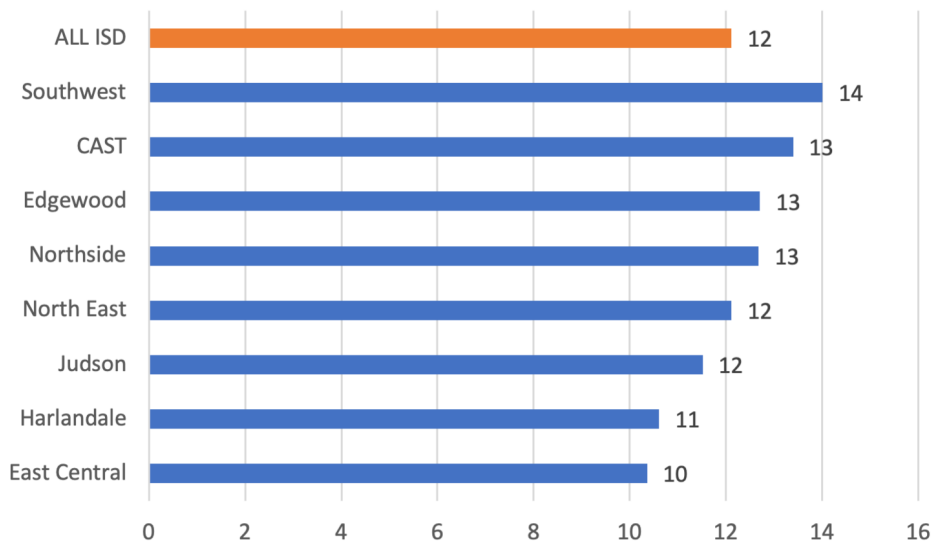## PERCENT OF TEACHERS WHO HAD PRIOR EXPERIENCE TEACHING ONLINE, BY SCHOOL SYSTEM

School System	Percent
ALL ISD	5%
CAST	13%
Harlandale	9%
Judson	9%
East Central	7%
Edgewood	7%
Southwest	4%
Northside	4%
North East	0%

PERCENT OF TEACHERS WHO HAD EXPERIENCE TEACHING ONLINE, BY SCHOOL LEVEL

School Level	Percent
Elementary School	1%
Middle School	7%
High School	7%

AVERAGE AGE OF TEACHERS, BY SCHOOL SYSTEM

School System	Average Age
ALL ISD	43
Edgewood	44
Northside	44
Southwest	43
Judson	43
Harlandale	42
North East	42
CAST	40
East Central	40

AVERAGE YEARS OF TEACHING EXPERIENCE, BY SCHOOL SYSTEM

| School System	Average Years
ALL ISD	12
Southwest	14
CAST	13
Edgewood	13
Northside	13
North East	12
Judson	12
Harlandale	11
East Central	10

CHALLENGES WITH DISTANCE LEARNING

As a whole, 72 percent of all teachers reported encountering early challenges with distance learning, although the rates varied by school district and type of teacher. Elementary school educators had the most difficulties, followed by middle and high school teachers.

Teachers indicated that most of the early challenges centered around technology access and use. Many expressed concerns about how the digital divide is further exacerbating existing disparities. Important themes that surfaced were around teacher unfamiliarity with online platforms; student problems logging in and accessing learning software; overall communication between parents and teachers; and shifting or unclear expectations from district administrators.
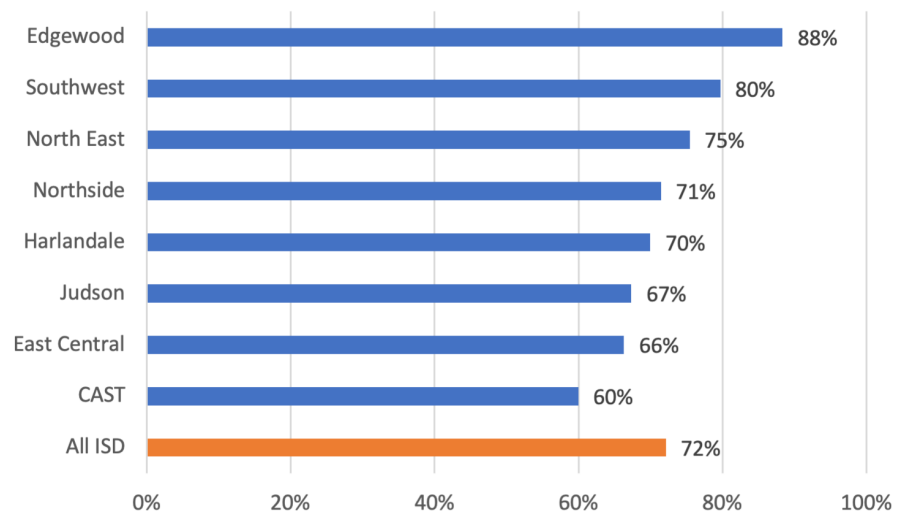
Asked to comment about what they disliked about emergency distance learning, teachers said they missed the social and emotional connections of in-person learning. They found it harder to monitor student work and engagement and they didn't like how heavily they were relied on as "tech support" for struggling students and families.
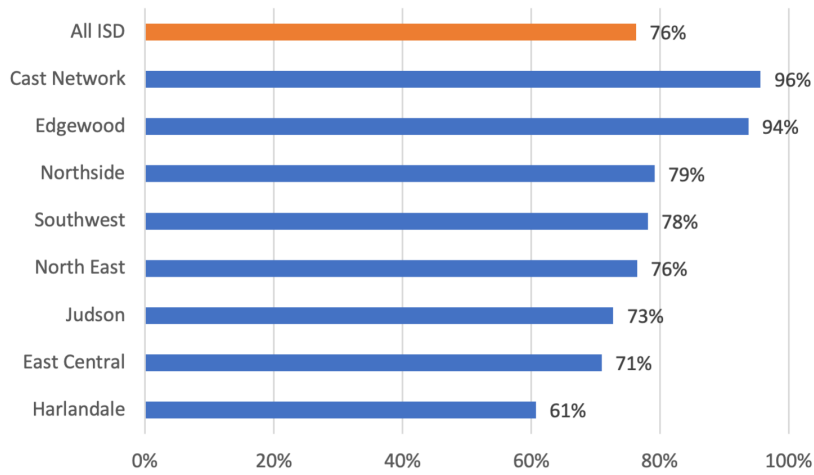
DID TEACHERS HAVE EARLY CHALLENGES?
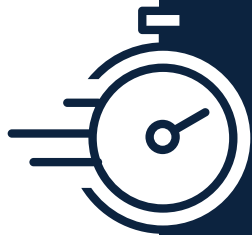
72% OF TEACHERS SAID THEY HAD **EARLY CHALLENGES** DURING DISTANCE LEARNING.

PERCENT OF TEACHERS EXPERIENCING EARLY CHALLENGES, BY SCHOOL SYSTEM
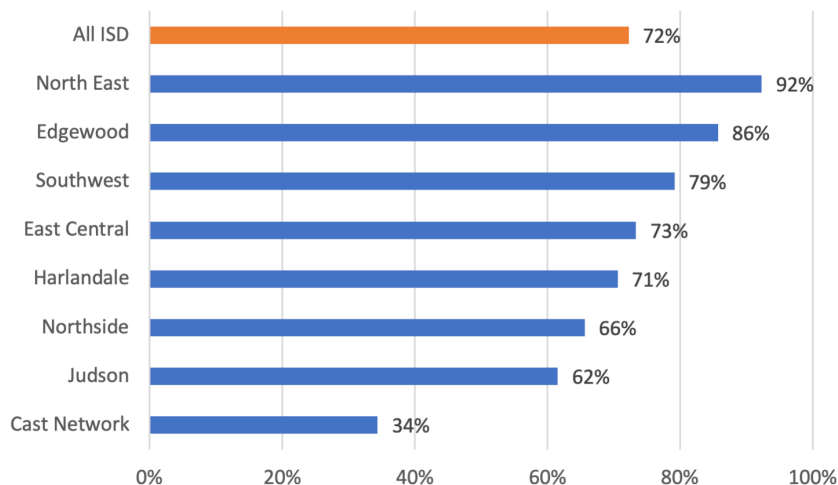
School System	Percent
Edgewood	88%
Southwest	80%
North East	75%
Northside	71%
Harlandale	70%
Judson	67%
East Central	66%
CAST	60%
All ISD	72%

PERCENT OF ELEMENTARY TEACHERS EXPERIENCING EARLY CHALLENGES, BY SCHOOL SYSTEM

School System	Percent
All ISD	76%
Cast Network	96%
Edgewood	94%
Northside	79%
Southwest	78%
North East	76%
Judson	73%
East Central	71%
Harlandale	61%

PERCENT OF MIDDLE SCHOOL TEACHERS EXPERIENCING EARLY CHALLENGES, BY SCHOOL SYSTEM

School System	Percent
All ISD	65%
Cast Network	85%
Southwest	83%
Harlandale	83%
Edgewood	75%
Northside	65%
Judson	65%
North East	56%
East Central	47%
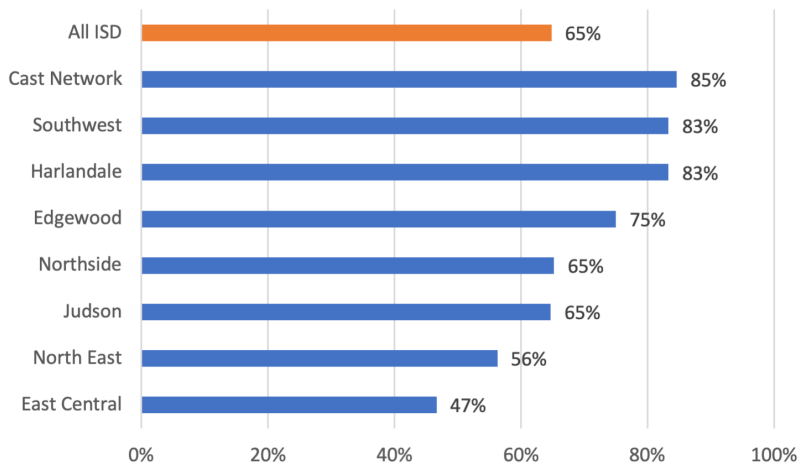
PERCENT OF HIGH SCHOOL TEACHERS EXPERIENCING EARLY CHALLENGES, BY SCHOOL SYSTEM

School System	Percent
All ISD	72%
North East	92%
Edgewood	86%
Southwest	79%
East Central	73%
Harlandale	71%
Northside	66%
Judson	62%
Cast Network	34%

WHAT WERE TEACHERS' EARLY CHALLENGES?

STUDENT PARTICIPATION

Teachers expressed frustration with student participation, engagement, and communication. Many reported that students simply did not log in and participate often enough or at all in the beginning.

THE TRANSITION

Making the sudden transition to distance learning was a challenge. Changing practices, gathering resources, and quickly learning new tools in a limited time span proved difficult and teachers felt ineffective.

TEACHER SUPPORT

A lack of communication and support from campus and district administrators was reported as an early challenge. These teachers mentioned a lack of clarity on technology use, policies, curriculum, and expectations for both teachers and students.

ACCESS

Teachers note that a lack of internet access and /or technology availability for their students was an early issue.

LEARNING NEW PLATFORMS

Learning how to use platforms that were new was an early challenge for teachers. Gaining a more complete understanding of the platforms beyond basic functions was necessary and difficult.
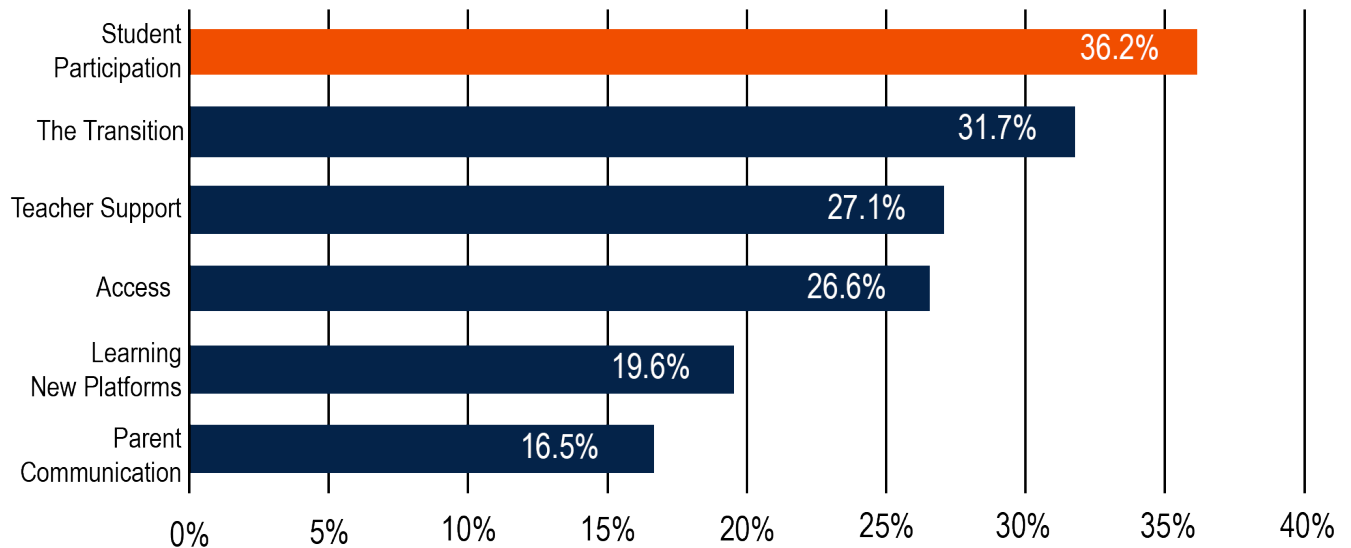
PARENT COMMUNICATION

Teachers mentioned trouble connecting and communicating with parents, including not being able to help them troubleshoot technology issues efficiently.

EARLY CHALLENGE TOPICS

Our analysis found teachers mentioned these topics when asked what their early challenges were.

| Topic	Percentage
Student Participation	36.2%
The Transition	31.7%
Teacher Support	27.1%
Access	26.6%
Learning New Platforms	19.6%
Parent Communication	16.5%

WHAT THEY SAID:

"Elementary teachers and parents do not use Google Classroom on a regular basis and it was horribly stressful attempting to roll it out with approximately 3 days notice. The first week was the worst and many parents were seriously freaking out, including myself."

  - Elementary school teacher

"I think it should be mandatory for kids to attend some sort of live lesson or check-in. I have never had more than a third of my class log in. In most classes, it's more like 20%."

  - Middle school teacher

WHAT DID TEACHERS DISLIKE ABOUT DISTANCE LEARNING?
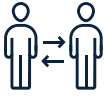
LACK OF CONNECTION WITH STUDENTS

Teachers reported missing the type of interactions with students that can only occur in person, and face-to-face. Offering social and emotional support to students was reported as difficult or impossible online.

LACK OF ACCOUNTABILITY AND PARTICIPATION

A lack of accountability and participation from students was another concern from teachers. They wanted clearer, enforceable guidelines for both grading and participation and they expressed many challenges and difficulties in engaging and tracking participation and learning during distance learning.

INEFFECTIVENESS OF ONLINE LEARNING

Mentions of the ineffectiveness of online learning included descriptions of the failure of certain technology platforms, lesson materials, and resources to function in an effective, efficient way. Both unfamiliar technologies like Zoom and Google Classroom, and familiar technologies like online gradebooks often proved time-consuming or ineffective when it came to translating teaching and learning best practices to an online environment.
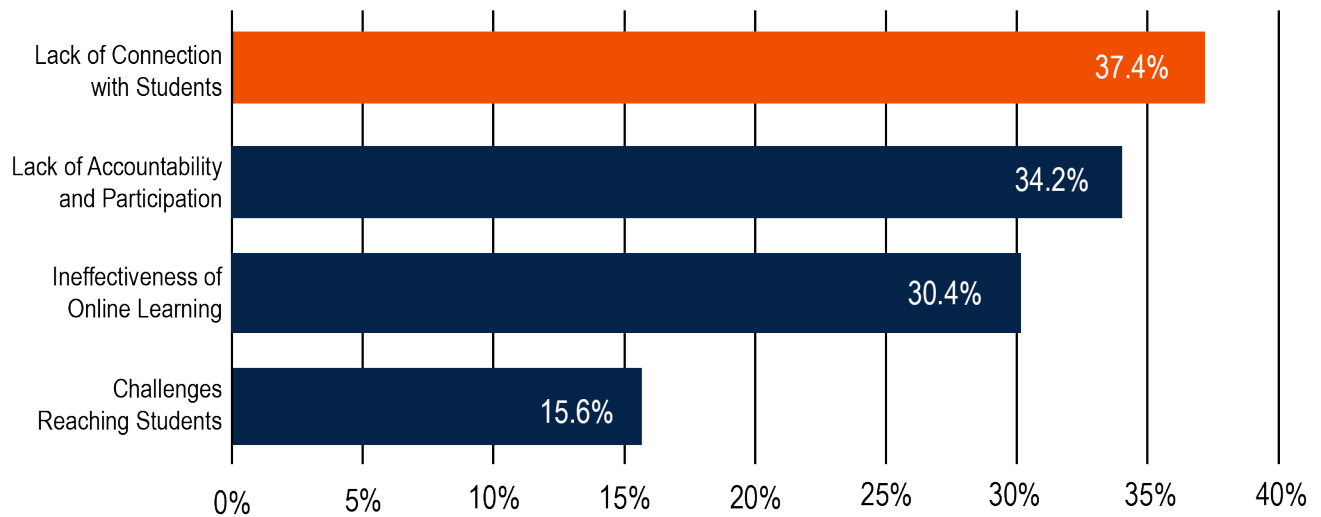
CHALLENGES REACHING STUDENTS

Teachers mentioned that contacting students, maintaining contact with students, engaging them, motivating them, and connecting with them proved challenging and created a significant increase in workload in an online environment.

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TEACHER DISLIKES

Our analysis found teachers mentioned these topics when asked what things, if any, had they disliked about distance learning.

Topic	Percentage
Lack of Connection with Students	37.4%
Lack of Accountability and Participation	34.2%
Ineffectiveness of Online Learning	30.4%
Challenges Reaching Students	15.6%

WHAT THEY SAID:

"I have missed my students very much. Zoom meetings and digital responses do not give me the same emotional connection as in-person learning does."
*   - Elementary school teacher*

"I dislike that all families are on different schedules and it is sometimes hard to be available to students. It's just hard to address questions and needs in real time the way that I am able to do in the classroom."
*   - Elementary school teacher*

RESILIENCY, NEW SKILLS, & OBSERVATIONS

Teachers demonstrated great resilience amid the unexpected shift to distance learning. An overwhelming number–91 percent–said they gained new knowledge or improved on existing skills. Possibly because they reported the least experience with online teaching, elementary school teachers indicated the most overall progress in new skills. Of all teachers surveyed, 95 percent said they were moderately to extremely effective in using technology to teach at a distance.

There were things teachers liked about emergency distance learning. They observed that it benefited many of their students to learn at their own pace with less structure. They said that technology and software tools allowed for more creativity and flexibility in instruction, as well as greater feedback between students and teachers.

Asked what their schools or districts did that was most helpful during pandemic learning, educators pointed to technology trainings, sample lessons, and professional development support. They also were thankful for mass distributions of laptops, devices, and hotspots to students to improve online access. Caring for overall student well-being went even further with meal distributions and regular communications/emails to parents, they said.
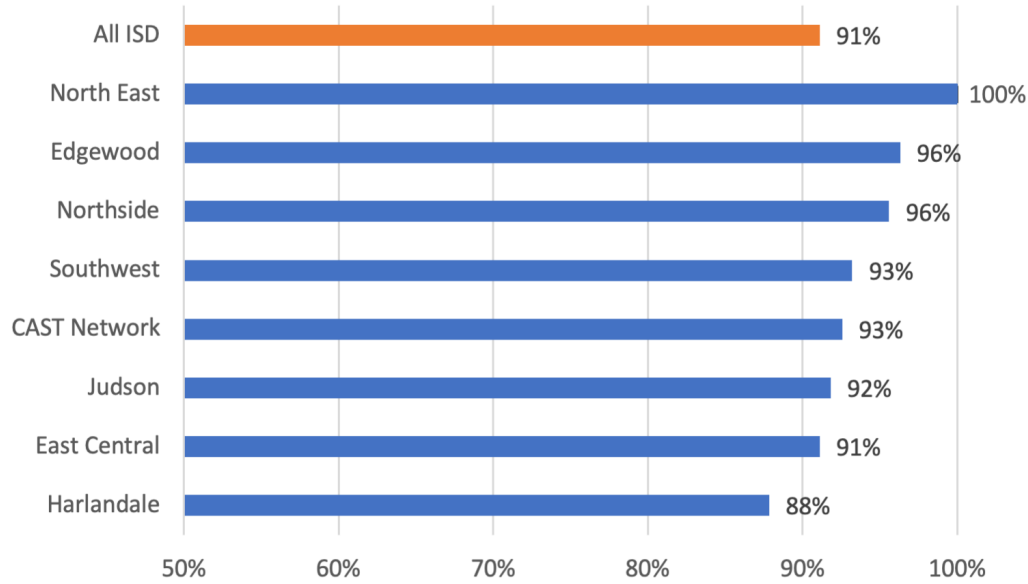
DID TEACHERS GAIN ANY NEW KNOWLEDGE OR SKILLS?

91% OF TEACHERS SAID THEY GAINED **NEW KNOWLEDGE OR IMPROVED SKILLS** DURING DISTANCE LEARNING.

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PERCENT OF TEACHERS WHO GAINED NEW KNOWLEDGE OR IMPROVED SKILLS DURING DISTANCE LEARNING, BY SCHOOL SYSTEM

School System	Percent
All ISD	91%
North East	100%
Edgewood	96%
Northside	96%
Southwest	93%
CAST Network	93%
Judson	92%
East Central	91%
Harlandale	88%

PERCENT OF TEACHERS WHO GAINED NEW KNOWLEDGE OR IMPROVED SKILLS DURING DISTANCE LEARNING, BY SCHOOL LEVEL

School Level	Percent
Elementary School	98%
Middle School	93%
High School	91%
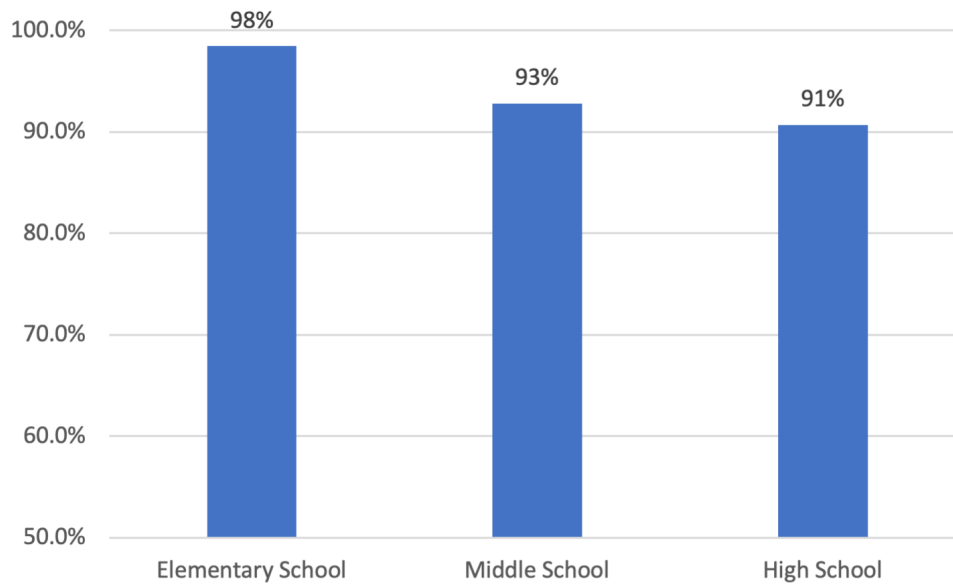
WHAT DID TEACHERS LIKE ABOUT DISTANCE LEARNING?

ADVANTAGES TO STUDENTS

Teachers reported liking some of the particular advantages that the format, tools, and context of distance learning provided their students-like students being able to go at their own pace and students having more control over when and how they learned.

PERKS OF WORKING FROM HOME

Many teachers mentioned liking specific perks that came along with teaching from home that they aren't usually able to enjoy when in the classroom. They like the flexible schedule, the ability to attend to personal needs without waiting for the passing period or needing a substitute, and having control over when they took on certain work tasks.

LEARNED NEW TEACHING SKILLS

Teachers liked learning new tools and teaching skills that they look forward to using in the future, in both online and traditional environments.
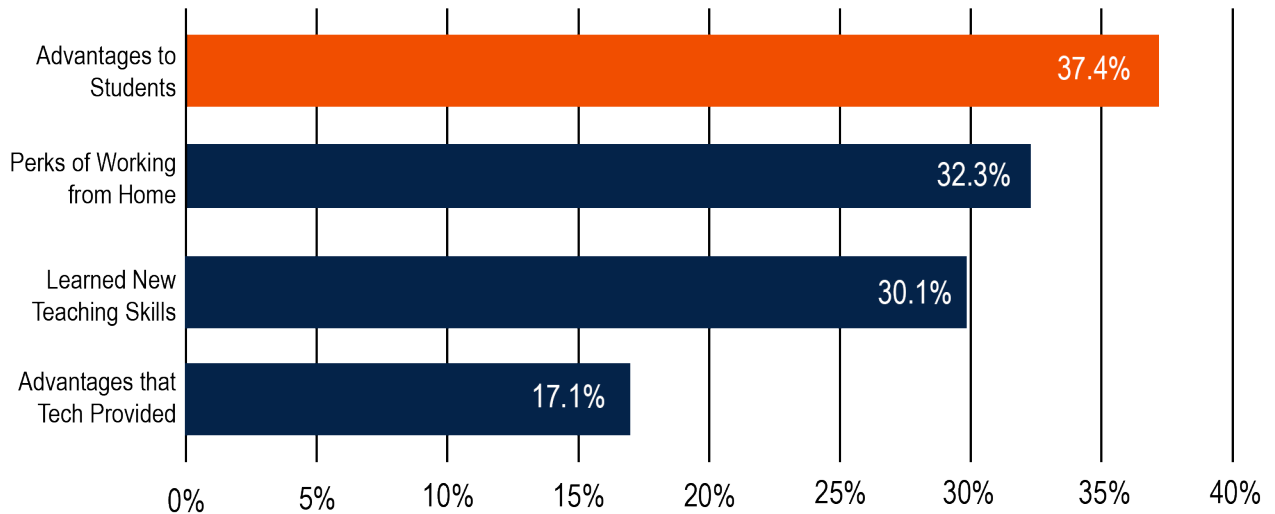
ADVANTAGES THAT TECHNOLOGY PROVIDED

Teachers also liked how the use of technology and certain platforms made some tasks easier and more streamlined. They particularly liked being able to provide more immediate feedback to students and the ability to share and send information more efficiently.

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WHAT TEACHERS LIKED ABOUT DISTANCE LEARNING

Our analysis found teachers mentioned these topics when asked what things, if any, had they liked about distance learning.

Topic	Percentage
Advantages to Students	37.4%
Perks of Working from Home	32.3%
Learned New Teaching Skills	30.1%
Advantages that Tech Provided	17.1%

WHAT THEY SAID:

"I like being able to have the freedom and creativity to challenge my students in different ways with new and interesting types of media that I didn't always use in the classroom. I have also really enjoyed connecting with my students at ZOOM meetings. It makes me laugh when we are together, which is always a welcome distraction."
- Elementary school teacher

"(School administrators) understood that we also were having to take care of our family at home and were flexible in expectations of teachers. They provided training in using some of the online platforms, participated in our Google Classroom by leaving encouraging messages for our class, and reached out consistently to ask if we needed anything."
- Elementary school teacher

WHAT DID TEACHERS FIND MOST HELPFUL?

DISTRICT TECHNOLOGY SUPPORT

Teachers most often mentioned assistance received from technology personnel and technology coaches as the most helpful. Both the availability and responses of IT staff were mentioned, as well as the proactive resources they provided like trainings, guides, webinars, and workshops.

PROVIDING ACCESS AND TECHNOLOGY

Many teachers mentioned that efforts to provide internet access and necessary technology to their students and their students' families proved to be among the most helpful actions taken by the school or district. The school or district's ability to find out who needed technology and then making sure they got what they needed were key themes in these responses.

DISTRICT SUPPORT AND COMMUNICATION

Some teachers mentioned both the tangible supports and clear communication from the school or district as the most helpful actions during distance learning. From district-provided lesson plans, weekly updates, to supportive and open lines of communication, this theme was key to many teachers' experience.
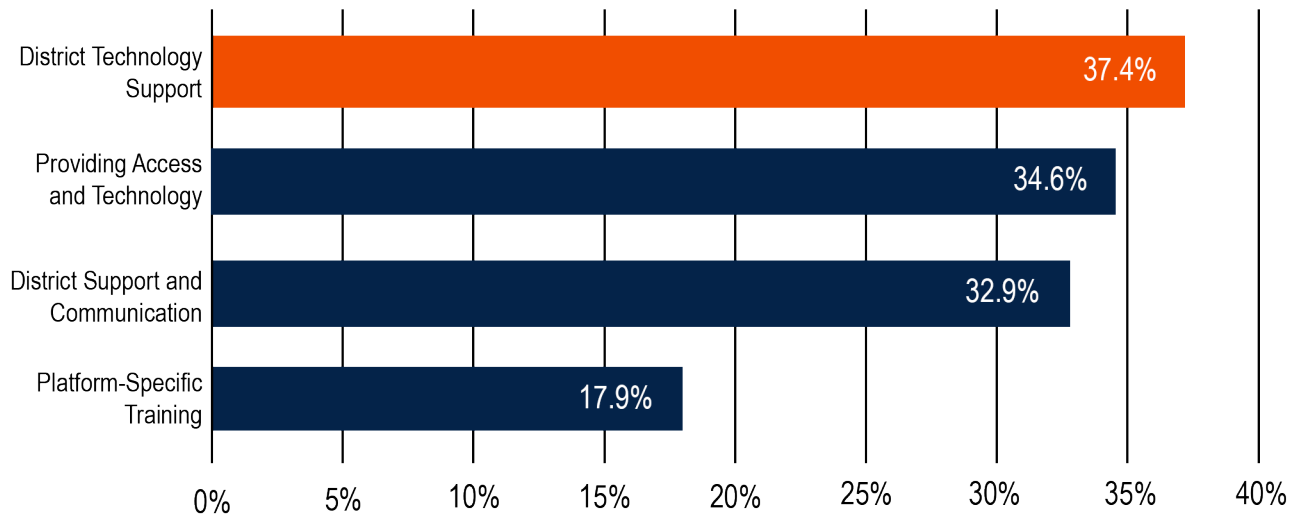
PLATFORM-SPECIFIC TRAINING

Other teachers described how helpful platform-specific set-up work and trainings by the district were. The preemptive support, set up, and trainings offered on platforms like Google Classroom were tools teachers needed and found helpful.

MOST HELPFUL SUPPORTS FOR TEACHERS

Our analysis found teachers mentioned these topics when asked what their schools/districts did during distance learning that was most helpful.

District Technology Support — 37.4%
Providing Access and Technology — 34.6%
District Support and Communication — 32.9%
Platform-Specific Training — 17.9%

0% 5% 10% 15% 20% 25% 30% 35% 40%

WHAT THEY SAID:

"My recommendation would be for the school to create how-to videos for parents that could teach them exactly how to log in to computer programs that will be used by the school. It would be important for them to be multilingual videos."
  - Elementary school teacher

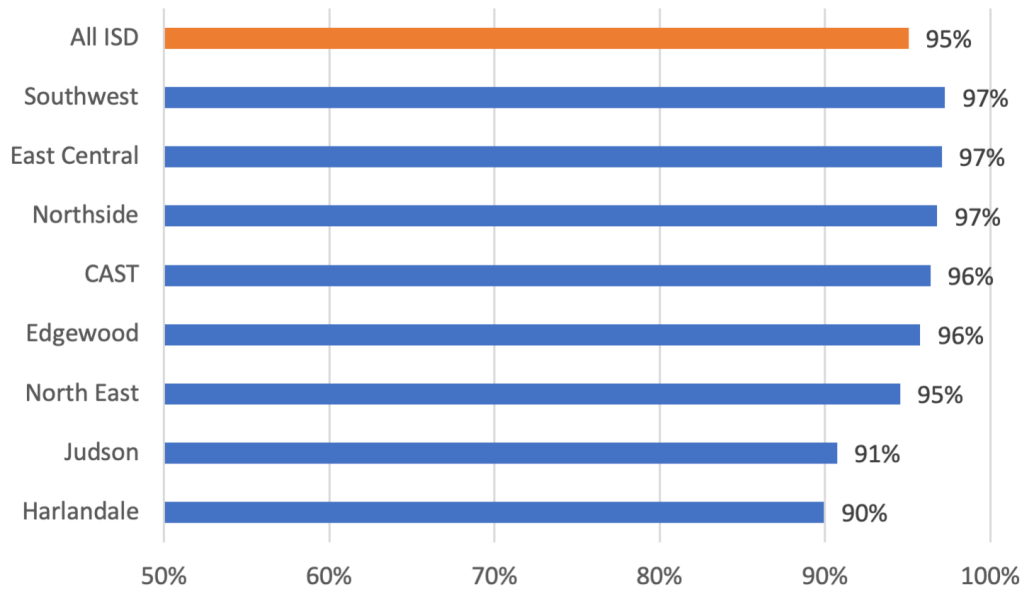# HOW EFFECTIVE WERE TEACHERS AT USING TECHNOLOGY TO TEACH?

**95%** OF TEACHERS SAID THEY WERE MODERATELY TO EXTREMELY **EFFECTIVE** USING TECHNOLOGY **TO TEACH** DURING DISTANCE LEARNING.

PERCENT OF TEACHERS WHO SAID THEY WERE MODERATELY TO EXTREMELY EFFECTIVE IN USING TECHNOLOGY TO TEACH, BY SCHOOL SYSTEM AND ALL ISDs

School System	Percent
All ISD	95%
Southwest	97%
East Central	97%
Northside	97%
CAST	96%
Edgewood	96%
North East	95%
Judson	91%
Harlandale	90%

PERCENT OF TEACHERS WHO SAID THEY WERE MODERATELY TO EXTREMELY EFFECTIVE IN USING TECHNOLOGY TO TEACH, BY SCHOOL LEVEL

School Level	Percent
Elementary School	97%
Middle School	99%
High School	91%
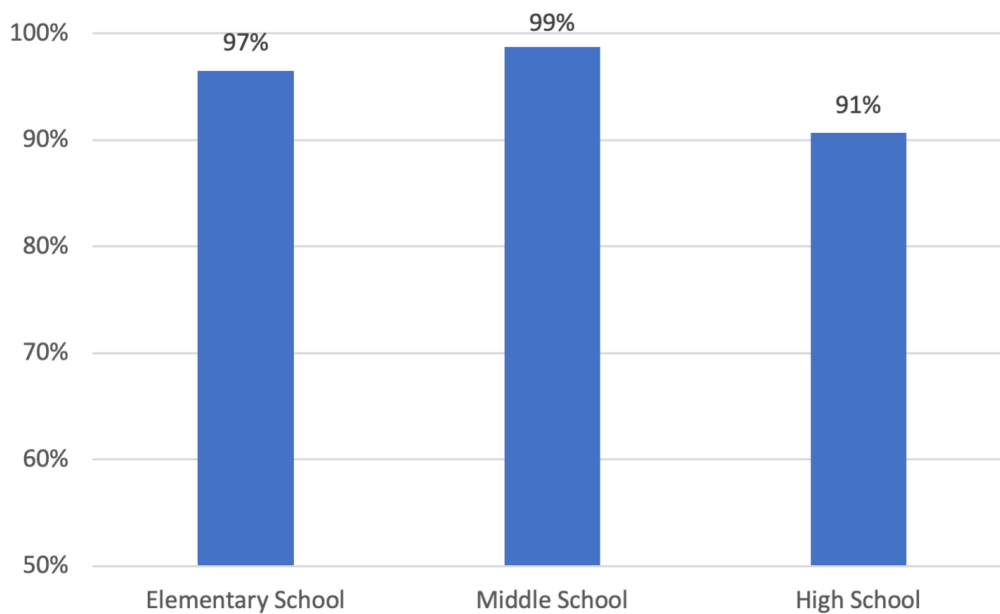
TEACHING AND STUDENT LEARNING

If teachers were to give student learning and engagement during the pandemic a grade, it would be a mixed bag.

Overall, a higher percentage of teachers said their ability to differentiate instruction was better during distance learning compared to before the pandemic, although those rates varied by district. Six of the eight school systems had more teachers reporting an increased ability to differentiate for students who were present. But finding effective ways to assess student learning amid all the changes proved challenging. Less than half of teachers said they were able to determine effective assessment methods.
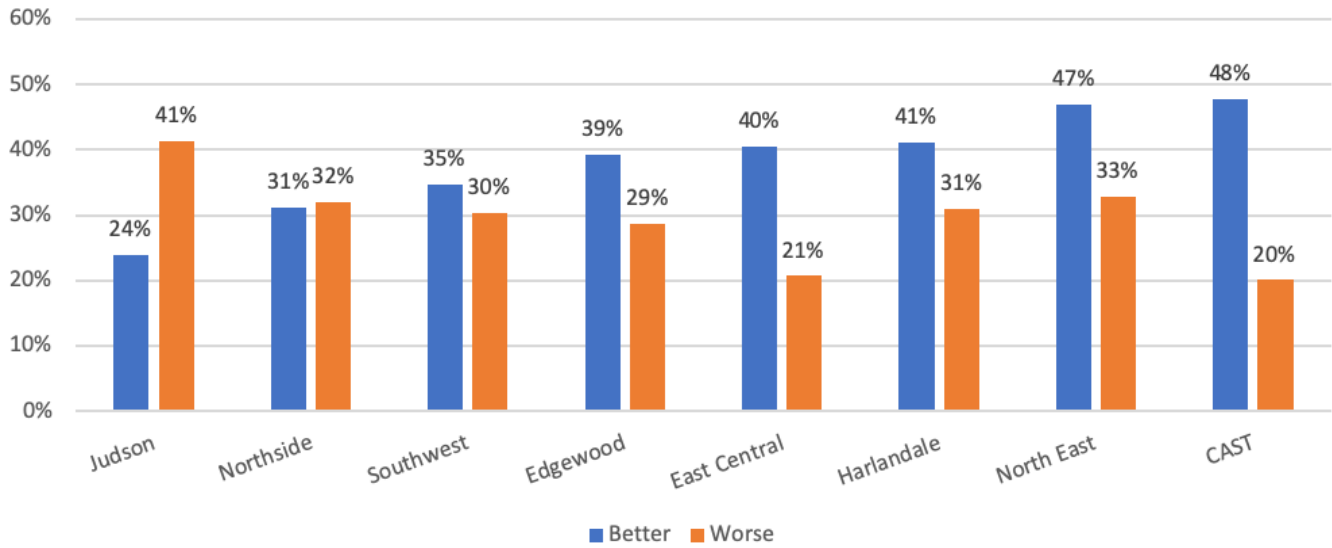
Answers also varied widely amid school districts and teaching levels regarding students' frequency of turning in schoolwork assignments during distance learning. But when teachers were asked how those rates compared to pre-pandemic learning, about 60 percent reported that students in distance-learning environments turned in assignments less frequently compared to normal, pre-pandemic schooling. The same wide variation existed when teachers were asked how often their students encountered attention-grabbing lessons that moved them forward in their learning. Compared with pre-pandemic, 65 percent of teachers said such engaging lessons and learning were less frequent than before.

# HOW WELL WERE TEACHERS ABLE TO PERFORM DIFFERENTIATED INSTRUCTION?

6 OUT OF 8 SCHOOL SYSTEMS SAID THEY **PERFORMED DIFFERENTIATED INSTRUCTION MORE EFFECTIVELY** FOR STUDENTS WHO WERE PRESENT.

PERCENT OF TEACHERS WHO SAID THEIR ABILITY TO PERFORM DIFFERENTIATION WAS BETTER OR WORSE COMPARED TO BEFORE, BY SCHOOL SYSTEM

School System	Better	Worse
Judson	24%	41%
Northside	31%	32%
Southwest	35%	30%
Edgewood	39%	29%
East Central	40%	21%
Harlandale	41%	31%
North East	47%	33%
CAST	48%	20%

■ Better   ■ Worse

PERCENT OF ALL TEACHERS WHO SAID THEIR ABILITY TO PERFORM DIFFERENTIATION WAS BETTER, THE SAME, OR WORSE COMPARED TO BEFORE

Better	Same	Worse
36%	33%	32%
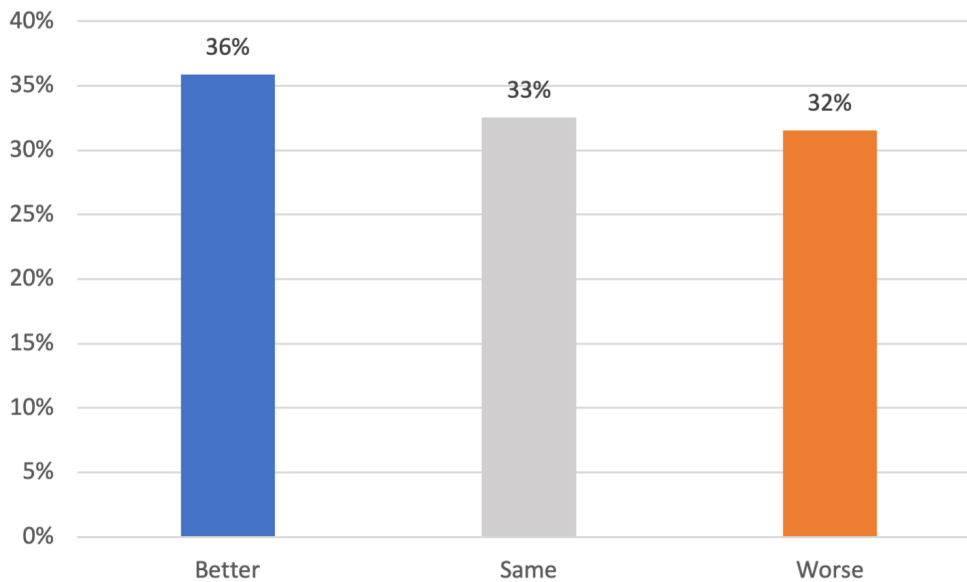
DID TEACHERS DISCOVER AN EFFECTIVE STRATEGY OF ASSESSING STUDENT LEARNING?
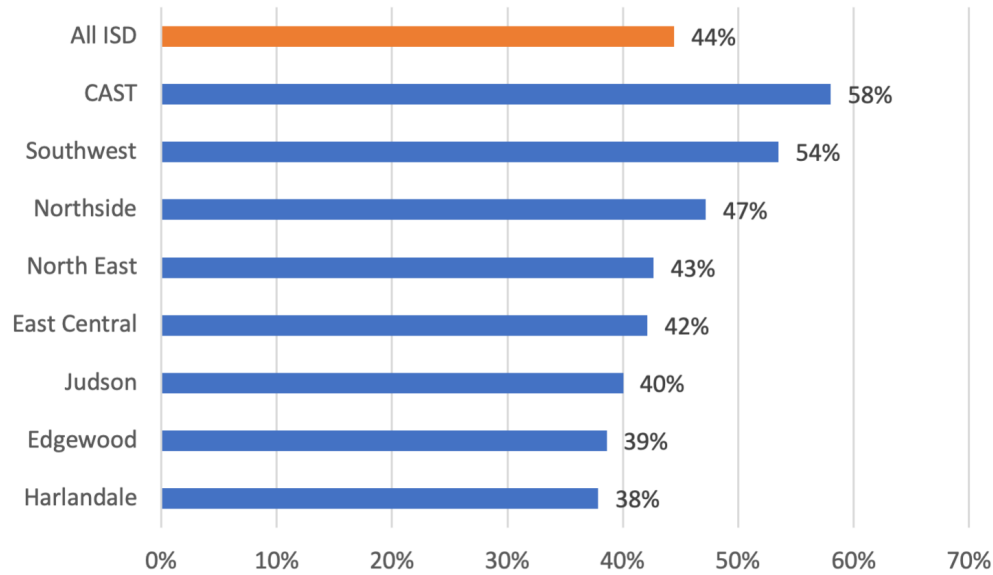
44% OF TEACHERS SAID THEY DISCOVERED **AN EFFECTIVE STRATEGY FOR ASSESSING STUDENT LEARNING** DURING DISTANCE LEARNING.

## LOOKING AHEAD expect more in an upcoming brief

In the next research brief, we will provide an in-depth analysis of specific teacher descriptions of strategies for assessing student learning that they found effective.

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PERCENT OF TEACHERS WHO DISCOVERED EFFECTIVE WAYS OF ASSESSING STUDENT LEARNING, BY SCHOOL SYSTEM AND ALL ISDs

School System	Percent
All ISD	44%
CAST	58%
Southwest	54%
Northside	47%
North East	43%
East Central	42%
Judson	40%
Edgewood	39%
Harlandale	38%

PERCENT OF TEACHERS WHO DISCOVERED EFFECTIVE WAYS OF ASSESSING STUDENT LEARNING, BY SCHOOL LEVEL

School Level	Percent
Elementary School	43%
Middle School	57%
High School	37%
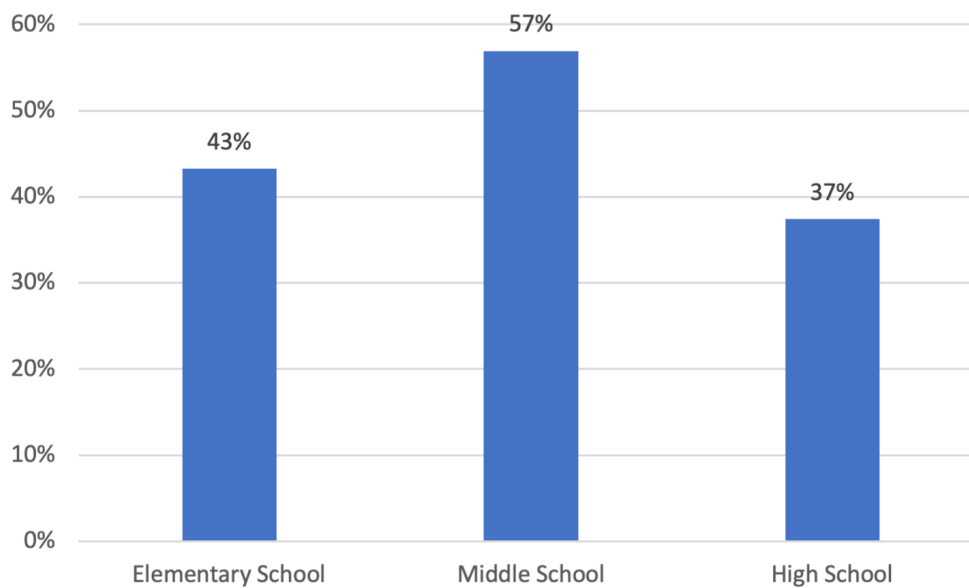
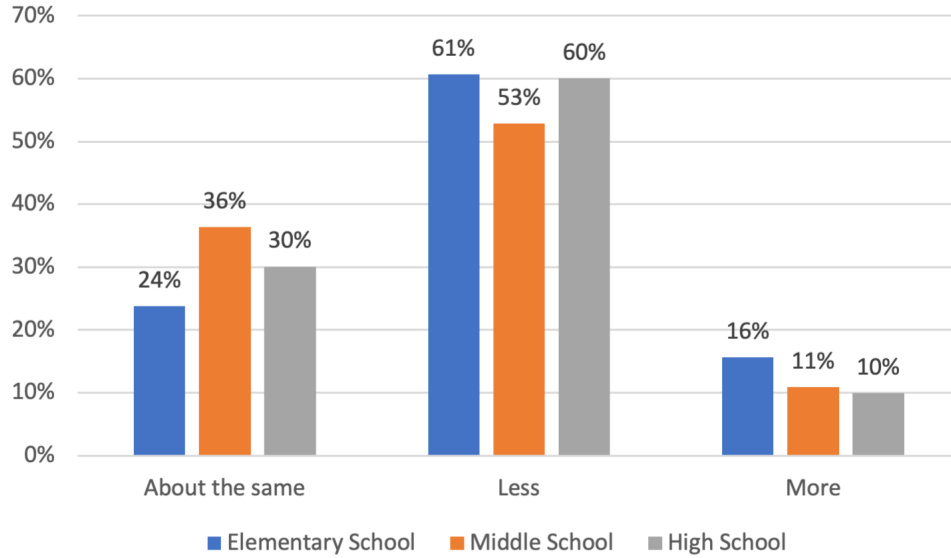# HOW OFTEN DID STUDENTS TURN IN ASSIGNMENTS?

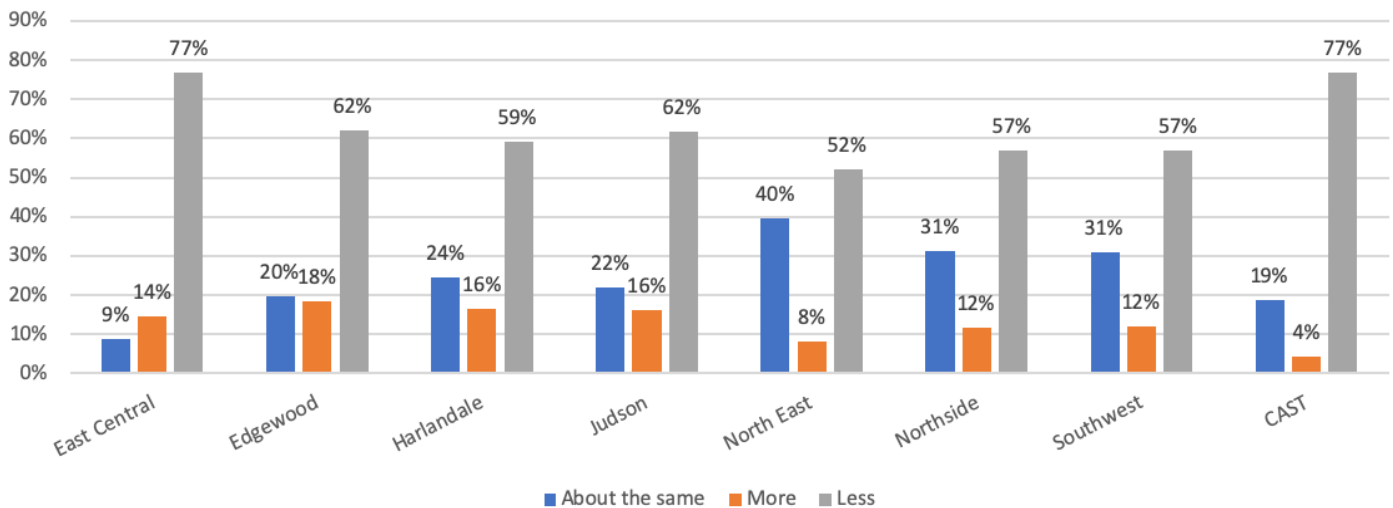## 59% OF TEACHERS SAID THEIR STUDENTS TURNED IN THEIR ASSIGNMENTS LESS OFTEN DURING DISTANCE LEARNING.

TEACHER-REPORTED FREQUENCY OF STUDENTS TURNING IN ASSIGNMENTS COMPARED TO PRE-DISTANCE LEARNING FOR ALL ISDs
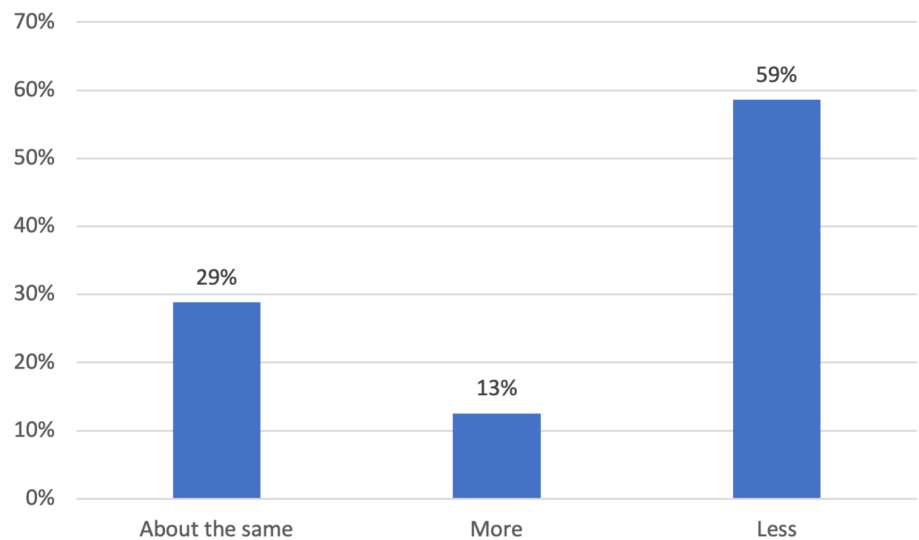
	About the same	More	Less
	29%	13%	59%

TEACHER-REPORTED FREQUENCY OF STUDENTS TURNING IN ASSIGNMENTS COMPARED TO PRE-DISTANCE LEARNING, BY SCHOOL LEVEL

TEACHER-REPORTED FREQUENCY OF STUDENTS TURNING IN ASSIGNMENTS COMPARED TO PRE-DISTANCE LEARNING, BY SCHOOL SYSTEM
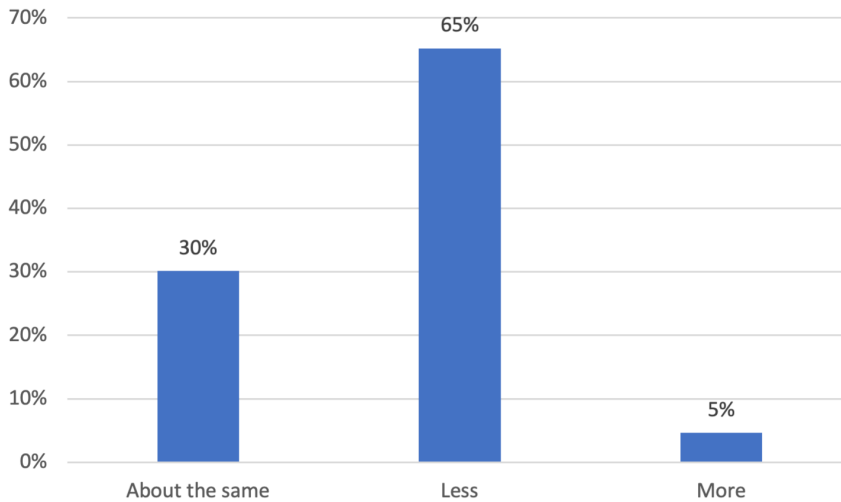
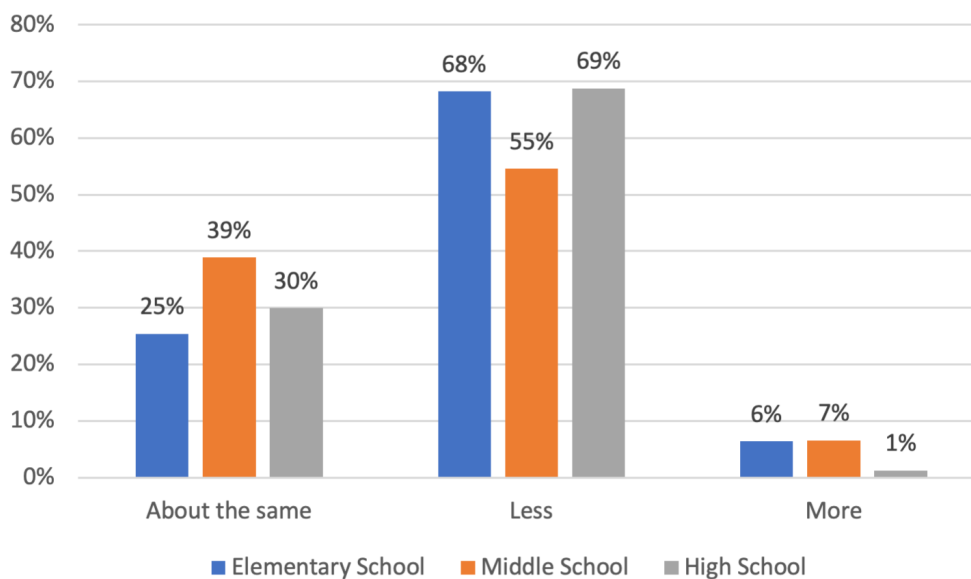# HOW OFTEN DID STUDENTS HAVE LESSONS THAT ENGAGED THEM?

65% OF TEACHERS SAID THEIR STUDENTS HAD LESSONS THAT ENGAGED THEM **LESS OFTEN** DURING DISTANCE LEARNING.
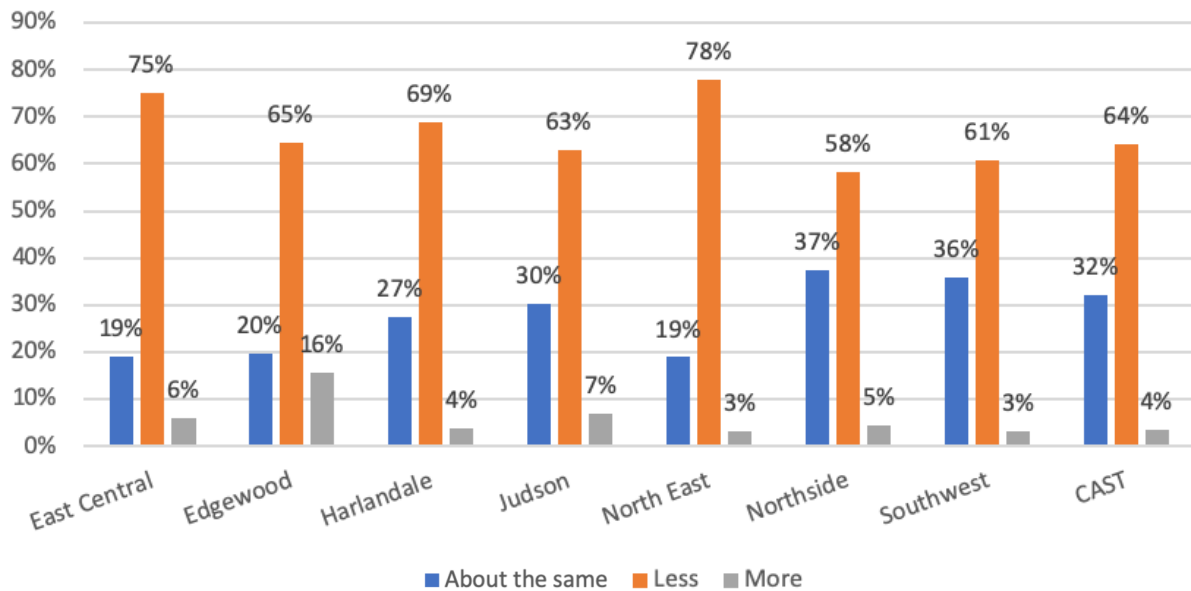
TEACHER-REPORTED FREQUENCY OF STUDENTS HAVING ENGAGING LESSONS COMPARED TO PRE-DISTANCE LEARNING

TEACHER-REPORTED FREQUENCY OF STUDENTS HAVING ENGAGING LESSONS COMPARED TO PRE-DISTANCE LEARNING, BY SCHOOL LEVEL

TEACHER-REPORTED FREQUENCY OF STUDENTS HAVING ENGAGING LESSONS COMPARED TO PRE-DISTANCE LEARNING, BY SCHOOL SYSTEM

Chart data (About the same / Less / More):
- East Central: 19% / 75% / 6%
- Edgewood: 20% / 65% / 16%
- Harlandale: 27% / 69% / 4%
- Judson: 30% / 63% / 7%
- North East: 19% / 78% / 3%
- Northside: 37% / 58% / 5%
- Southwest: 36% / 61% / 3%
- CAST: 32% / 64% / 4%

Legend: ■ About the same ■ Less ■ More

LOOKING AHEAD expect more in an upcoming brief

In the next research brief, we will provide an in-depth analysis of specific teacher and student descriptions of what techniques made a distance learning lesson engaging, and what made them fall short.

IMPROVING DISTANCE LEARNING

Teachers have many ideas and recommendations on how schools can improve during this ongoing pandemic, especially as districts prepare to offer partial or full-time distance learning when school begins again this year. Specifically, they want to see continued work to close inequitable technology access issues so that students can connect and take part in meaningful learning. Teachers say they expect clearer expectations and guidance from administrators over grading, assessments, and assignments.

WHAT DID TEACHERS SAY WOULD BE HELPFUL?

BALANCE TEACHER WORKLOAD

Over a third of teachers mentioned being spread thin by the new elements added to their workload during distance learning, and wanted the district or campus to either eliminate these tasks or provide more time and support to accomplish them. They named things like navigating unclear/contradicting guidelines, too many meetings and emails, providing tech support themselves, and having to keep track of too much information.

IMPROVE STUDENT PARTICIPATION

Teachers mentioned needing better systems, support, and accountability when it comes to ensuring student participation in distance learning.

BETTER/MORE TECHNOLOGY AND RESOURCES

While many teachers praised the quality of the tech assistance and resources provided by the school or district, a quarter of teachers mentioned that even more and better technology resources and support would have been more helpful.

CLEARER TEACHER EXPECTATIONS

Teachers also mentioned the need for clearer guidelines, expectations, and follow-through for things like how to: grade during distance learning, track learning and assignment completion, and keep students accountable.
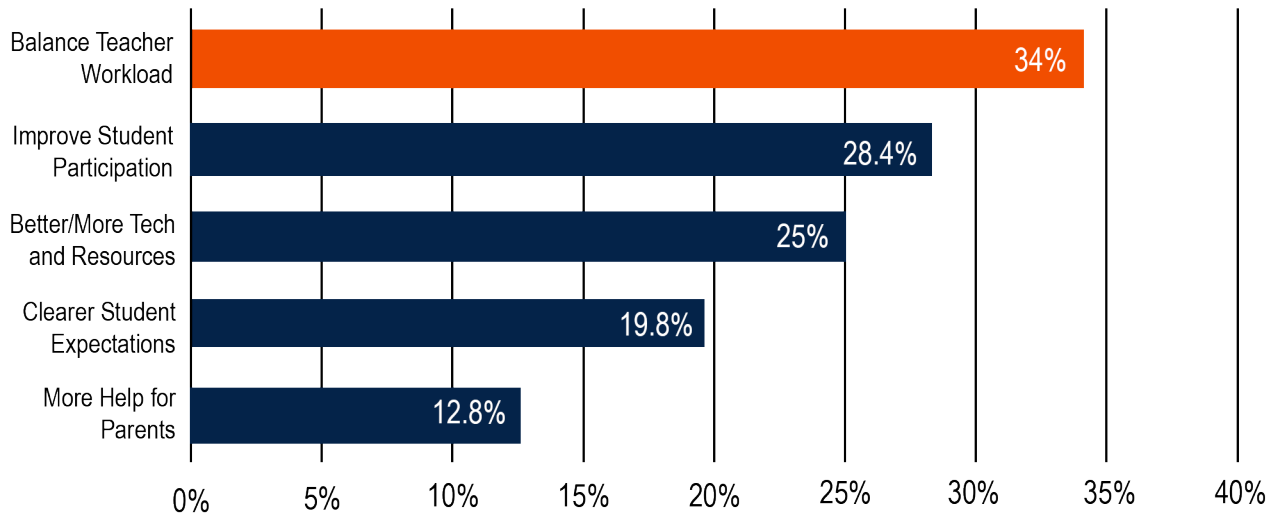
MORE HELP FOR PARENTS

Teachers also mentioned that making more tech help, resources, and training available and accessible directly to parents and students would have been more helpful.

WHAT TEACHERS NEEDED MORE HELP WITH

Our analysis found teachers mentioned these topics when asked what their schools/districts could do to be more helpful during distance learning.

Category	Value
Balance Teacher Workload	34%
Improve Student Participation	28.4%
Better/More Tech and Resources	25%
Clearer Student Expectations	19.8%
More Help for Parents	12.8%

0% 5% 10% 15% 20% 25% 30% 35% 40%

WHAT THEY SAID:

"I think we should start off with building a virtual classroom environment that meets the social-emotional needs of our students first and also involves parents/guardians in a contract or pledge to make distance learning a team effort."
- Elementary school teacher

TEACHER RECOMMENDATIONS FOR IMPROVING DISTANCE LEARNING

The survey asked teachers, "If your school needed to continue distance learning in the fall, do you have any recommendations for improving the experience?" This open-ended question allowed teachers a full-range of responses. The wide variety of ideas and answers to this question created a unique data set that was difficult to represent thematically. Instead, we provided a sampling of some of the variety of responses and interesting ideas for improvement generated by the teachers.

BRIGHT IDEAS a sampling of teacher responses

ON A HYBRID APPROACH IN THE FUTURE

• "I sincerely hope that it is not strictly distance learning (in the fall), and instead some sort of hybrid model that gets some face time with students. This will help with accountability, the necessary socialization etc." -Middle school teacher

• "I think that the lower students who show no effort should be allowed to be on campus in a small group setting. These students will not benefit with distant learning. Having the high achievers work from home, if needed, would allow the small groups at school to function better. This would help them benefit more, even if it's at least three times a week." -Middle school teacher

• "(A solution could be) offering a hybrid of online and in-person classes. Possibly having half days for students where half the students come in the morning then the other half in the afternoon so as to decrease class sizes." -Elementary school teacher

ON EXPECTATIONS AND GRADING

• "Adjust grading practices toward a feedback-oriented experience. This could look more like mastery-based grading, but I want to see students responding to feedback on tasks and revising." -High school teacher

• "Maybe students who don't do their online work can be required to come to school and maybe work in the library or cafeteria." -Middle school teacher

• "Grading, especially the punitive nature of grading, needs to be dramatically rethought for distance learning. If grades are viewed as punitive (example: if you don't do your work then you will have to repeat the class next year), then students are more likely to engage in dishonest behaviors–which are nearly impossible to monitor in online environments. I think if more than 50 percent of a semester is spent in online learning, then grading has to go to a Pass/Fail system." -High school teacher

ON COMMUNICATION

• "I want to be using Google Voice to text the parents when there is a problem. E-mails and phone calls don't seem to get much of a response." -High school teacher

• "Minimize and/or consolidate the amount of spreadsheets and logs required of us to track all the types of ways we are communicating with students and parents." -High school teacher

ON PLATFORMS AND TECHNOLOGY

- "I would recommend mandatory Zoom meetings 1-2 times per week per student so that if we needed to speak or get in touch with a student we have that time to do so. " -Middle school teacher

- "Every elementary student should be assigned a specific district email address to make logging onto Google Classroom an easier process. This will help families have one central location for a specific child to receive communications and make communication connection even easier." -Elementary school teacher

- "If they could somehow link the gradebook (TAC) with Google Classroom, that would be a huge timesaver." -High school teacher

ON ACCESS AND CONNECTIVITY

- "The buses with free wifi would have been far more effective had they parked the buses inside the community itself–closer to the children's homes rather than next to McDonalds or the mall parking lot." -Elementary school teacher

ON HELPING DIFFERENT LEARNERS SUCCEED

- "I do not think distance learning is the best for special education students and would suggest looking a model that had them face-to-face with a teacher at some point during the day/week." -Middle school teacher

- "Home visits are truly invaluable–30 to 40 percent of students were disengaged for at least part of the 4th quarter. When our administration prioritized trying to get a hold of those families, learners' outcomes improved substantially." -Middle school teacher

ON SOLVING VIRTUAL LEARNING PROBLEMS

• "Have teachers on standby to answer student questions on Zoom/Google hangout all day long. There would be shifts that teachers could rotate through. A teacher would be available at any time of the school day to help with work. The schedule and links would be shared with students and parents." -Middle school teacher

• "If we provide more asynchronous lessons, students will have more flexibility and more chances for success. They can view prerecorded presentations, participate in discussions, and complete learning activities on their own schedules." -Elementary school teacher

• "I feel we have got to set up virtual mandatory class time for each class. The time could be shorter and only 1-2 times per week, but the students must have to sign on if they have the equipment to do so. Giving the students the option to sign on whenever they want will not work in the future." -High school teacher

LOOKING AHEAD expect more in an upcoming brief

In future research briefs, a sample of recommendations from students and parents will bring in suggestions from their experiences and perspectives of distance learning.
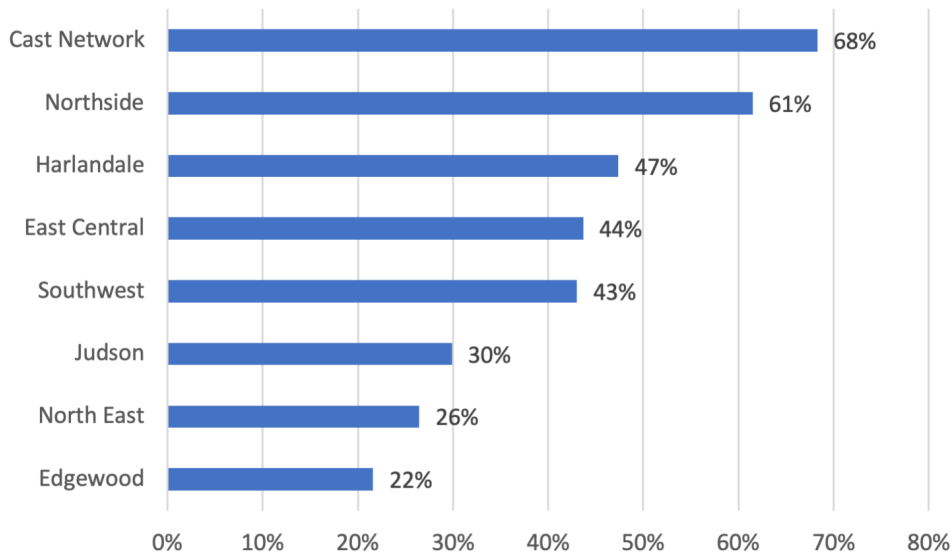
METHODOLOGY

SAMPLING STRATEGY

We adopted a stratified random sampling scheme to ensure the representation of all K-12 teachers in the survey's participating seven independent school districts (ISDs) and CAST Network Schools. For the purposes of this section, we use the term school system to include the ISDs and CAST network.

Based on the administrative list of teachers obtained from participating school systems, we selected the number of teachers by the proportion of teachers in elementary schools (Kindergarten through 5th grade), middle schools (grades 6-8), and high schools (grades 9-12) within a school system.

A total of 1,215 teachers were invited by email to take the web-based survey, and 545 completed it. In each school system, an average of 174 K-12 teachers received an invitation, followed by four reminders. The average response rate in each school system was 39.1, with a standard deviation of 13.9, but it varied by school systems as shown in the figure

TEACHER SURVEY RESPONSE RATES BY SCHOOL SYSTEM

School System	Response Rate
Cast Network	68%
Northside	61%
Harlandale	47%
East Central	44%
Southwest	43%
Judson	30%
North East	26%
Edgewood	22%

Additionally, we invited teachers in the CAST Network, which consists of four schools, including one with all grades (K-12) and the others with grades 9-12. We employed the same sampling strategy, and 68.3 percent of teachers in CAST Network completed the survey. The response rate by the type of school (elementary, middle, and high school) is available from the authors upon request. Also, using the administrative list of teachers, we were able to calculate the weighted average of all responses in questionnaires at each participating school system.

OPEN-ENDED ANSWERS

For the survey's open-ended answers, we conducted exploratory data analysis to extract the most representative keywords. We then performed topic analysis to discover the hidden topics within a collection of answers using machine-learning techniques. For the implementation, we first broke up a sequence of strings into pieces of words after lowering cases, removing symbols or function words, and stemming process. We also collapsed synonyms into one. We then generated a bag-of-words for each question based on words that appeared in at least five answers.

We performed topic modeling using Nonnegative Matrix Factorization (NMF), one of the effective and interpretable machine-learning techniques. NMF identifies topics and simultaneously assigns the documents to a different topic(s), so we could discover hidden themes and calculate the probability of each topic occurring in the collected answers. The parameters for the implementation of NMF are determined based on the validation process by human coders.

LIMITATIONS

This study may have two sources of biases stemming from the voluntary nature of study participation. Specifically, teachers voluntarily participated in the study as well as answered the questions. If specific characteristics of the respondents were correlated with survey response rates, our results might not reflect population opinions regarding their experiences during this period of distance learning.

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