

# TEACHING & LEARNING IN THE TIME OF COVID-19

## RESEARCH BRIEF: STUDENT ENGAGEMENT AND LEARNING



August 17, 2020

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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.

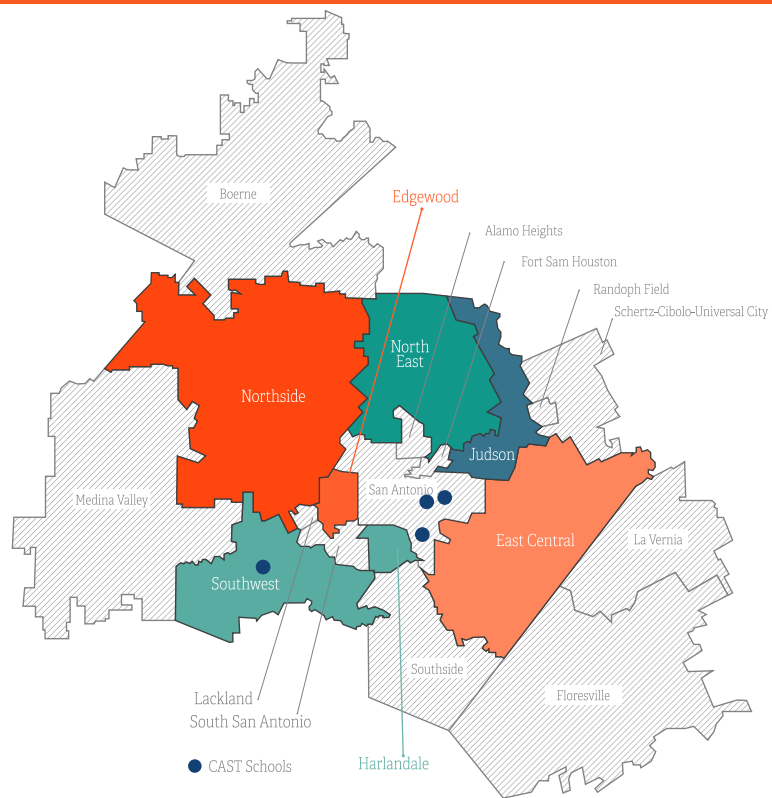
# INTRODUCTION

This report represents the second product of a groundbreaking, 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.

This second research brief dives deeper into understanding student engagement and the types of distance-learning lessons that benefitted students the most. In the spring of 2020, we surveyed teachers, parents, and students. Researchers directly interviewed students older than 16 and spoke to the parents of younger students. Taken together, their analyzed responses form the conclusions in this research brief, which is intended to help educators plan for more intentional emergency distance learning throughout the coming school year.

## PARTICIPATING SCHOOL SYSTEMS

- CAST Schools
- East Central ISD
- Edgewood ISD
- Harlandale ISD
- Judson ISD
- North East ISD
- Northside ISD
- Southwest ISD



# KEY FINDINGS



**Students and parents understood and sympathized with the extreme circumstances teachers were working under after the sudden shift to distance learning.**

- 57 percent of students and parents said their teachers were helpful and that they couldn't have done anything more to improve upon that stressful time.



**The majority of students learned less after schools went to distance learning, compared to pre-pandemic schooling. But a small segment of students actually learned more.**

- 64 percent of students and parents reported that students learned less during emergency distance learning.
- 25 percent said they learned about the same.
- 11 percent said they learned more.



**Here's what worked during emergency distance learning:**

- "Synchronous," or live, lessons allowing students to interact with teachers and peers
- Creative, project-based assignments giving students autonomy and choice
- Clear and consistent communication from teachers, such as the use of assignment calendars and video lesson tutorials
- Student one-on-one time with teachers for building skills, improving academics, and social-emotional check-ins



**Here's what didn't work:**

- Written responses to passive reading/viewing, "busy work," reviews, and worksheets
- Traditional fill-in-the-blank lessons and quizzes
- Lessons without access to teacher help
- Lack of technology and software training
- Too many tech platforms in use, many of which were too complex to navigate
- Pre-packaged, online content provided by textbook companies

# ENGAGEMENT AND LEARNING

Student engagement leads to learning. When students are engaged in their studies, they dedicate time to schoolwork in and outside of the classroom, feel challenged, and exercise deeper learning strategies (Fredricks, Blumenfeld and Paris, 2004). In our survey of parents and students, we measured dimensions of student engagement and learning during the pandemic in the spring of 2020 and asked students and parents to compare these measures to their levels before the pandemic.

Overall, we found significant variance in student engagement and learning across school systems. This variability suggests that more effective methods for distance learning have been discovered locally. By asking students, parents, and teachers what worked, we attempted to identify these more effective methods. Because it is often as important to know what to avoid, we also asked what did *not* work.

Put simply, we found no one guaranteed approach to student engagement and learning. Response data suggest that schools and teachers must combine multiple strategies to reach remote learners and their families. And while there was no singular solution, response data did support a few principles of effective teaching that are immune to the pandemic. Students are most likely to engage when they feel connected to the teacher, to one another, and to relevant class material that challenges them.

This report shows we have more work to accomplish. Compared to pre-pandemic schooling, students and parents report less student engagement and learning. However, most of those surveyed kept things in perspective amid the ongoing global health and economic crisis. The majority—57 percent—said teachers had been helpful and that they couldn't have done anything more to improve given the circumstances.

# WHAT COULD TEACHERS DO TO BE MORE HELPFUL?

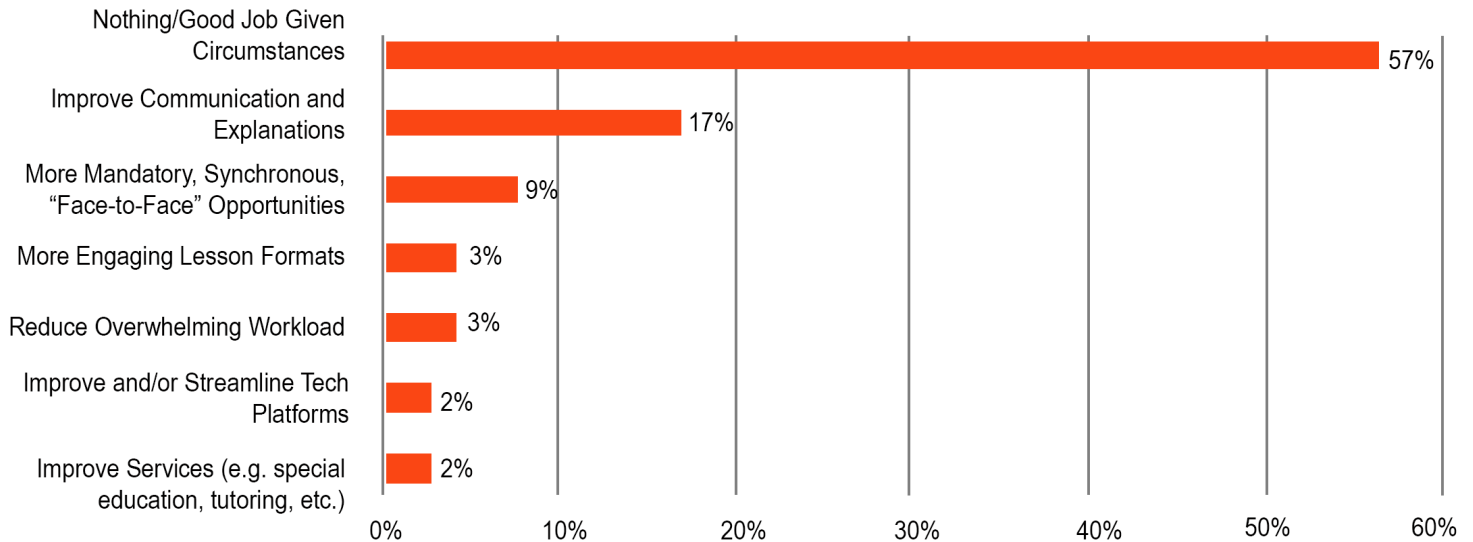


OF STUDENTS AND PARENTS SAID  
**TEACHERS**  
COULDN'T HAVE DONE  
**A BETTER JOB**  
GIVEN THE CIRCUMSTANCES  
OF DISTANCE LEARNING



## ACTIONS TEACHERS COULD HAVE TAKEN TO BE MORE HELPFUL

Our analysis found students and parents mentioned these topics when asked what things teachers could have done to be more helpful during emergency distance learning.



## WHAT THEY SAID:

*"The only suggestion I have is that I got the impression that the Zoom meetings were optional. I think they should be mandatory. I would have loved if [my daughter] would have been able to work with teachers when [my daughter] had problems in real-time."*

*- Parent of 7th grader*

*"It was really hard to get in touch with teachers to ask what we were missing. I also never knew what I did wrong on my assignments or what I was missing. I could message them on all different apps and places. It was just all very confusing."*

*- 11th grader*

## SUMMARY: ACTIONS TEACHERS COULD HAVE TAKEN TO BE MORE HELPFUL



### NOTHING/GOOD JOB GIVEN CIRCUMSTANCES

The majority of students and parents said their teachers were helpful and that they couldn't have done anything more to improve given the circumstances.



### IMPROVE COMMUNICATION AND EXPLANATIONS

In this topic, mentions of the need for better, more frequent, clear, and efficient communication from teachers made up the bulk of the responses.



### MORE MANDATORY, SYNCHRONOUS, "FACE-TO-FACE" OPPORTUNITIES

Described as engaging and helpful in other parts of this report, responses in this topic asked for more "face-to-face," synchronous classroom interactions via platforms like Zoom and Google Meet. Many also mentioned making these engagements mandatory.



### MORE ENGAGING LESSON FORMATS

Frustration with lessons posted on a platform that included written instructions and rote tasks led many to ask for more engaging formats that gave students opportunities for creativity and autonomy. They preferred interaction and video instructions/content.



### REDUCE OVERWHELMING WORKLOAD

Older students and parents both mentioned being overwhelmed by the amount of work being assigned and what it took to execute that work during emergency distance learning. They believed it was too much to keep up with, and that assigned work should be limited.



### IMPROVE AND/OR STREAMLINE TECH PLATFORMS

This topic included requests for better quality, fewer, and more consistent platforms.



### IMPROVE SERVICES

Access to services normally provided on campus made up this topic, including special education, counseling, tutoring, college and career center, and technology support.

# HOW MUCH DID STUDENTS LEARN?

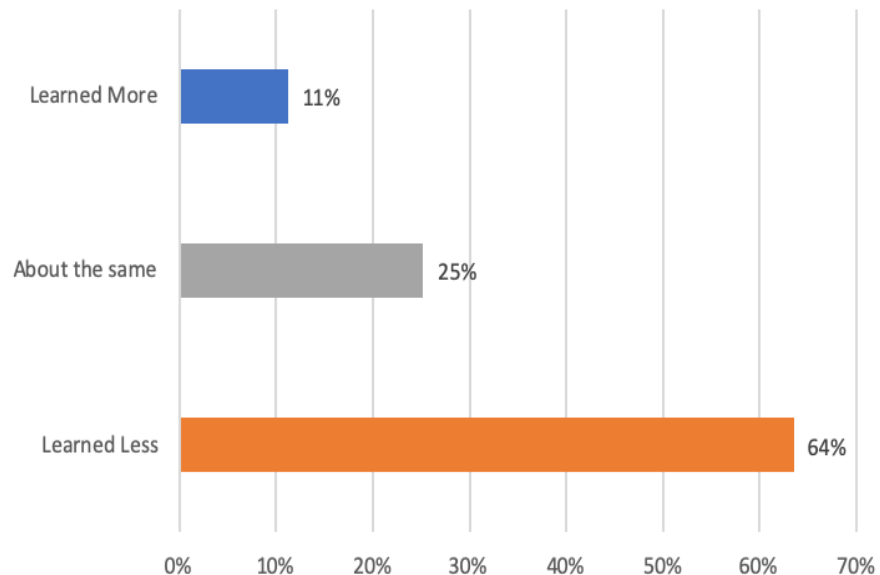
Responses from parents and high school students (ages 16 and older)



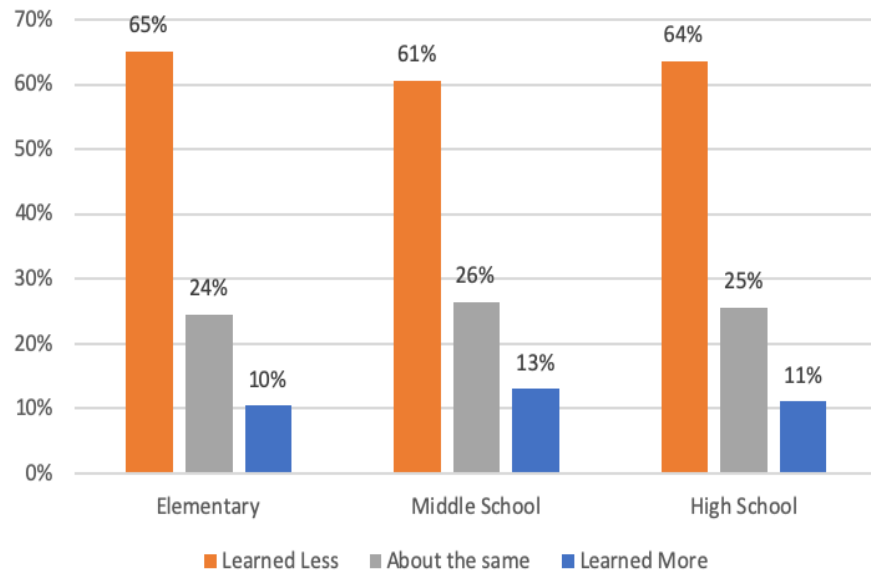
64%

OF STUDENTS AND PARENTS SAID  
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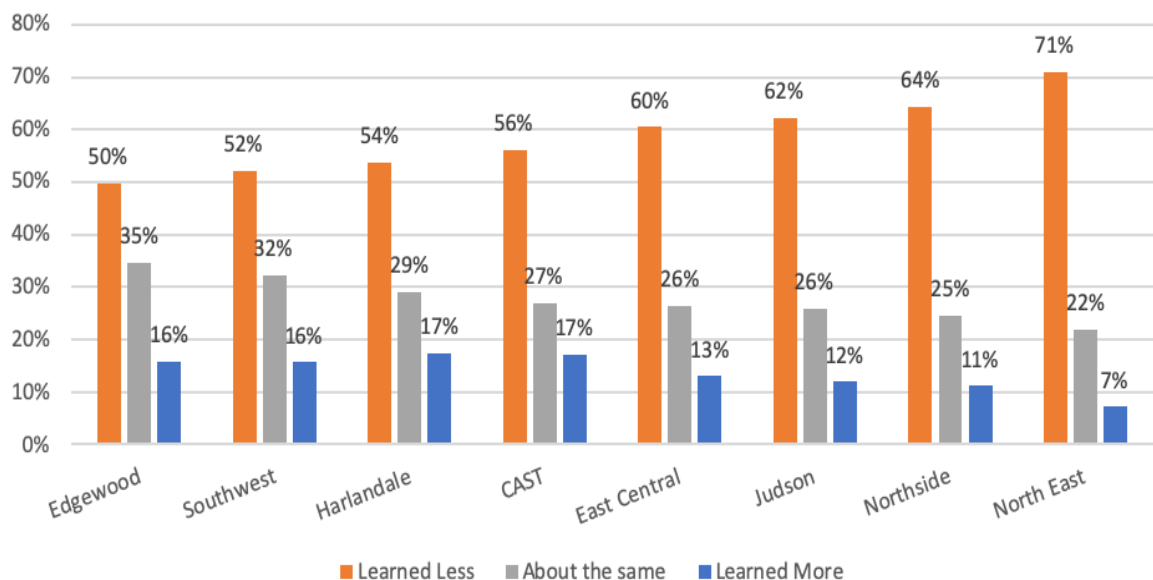
## EXTENT TO WHICH STUDENTS LEARNED COMPARED WITH PRE-PANDEMIC SCHOOLING



## EXTENT TO WHICH STUDENTS LEARNED COMPARED WITH PRE-PANDEMIC SCHOOLING, BY LEVEL



## EXTENT TO WHICH STUDENTS LEARNED COMPARED WITH PRE-PANDEMIC SCHOOLING, BY SCHOOL SYSTEM



# HOW ENGAGED WERE HIGH SCHOOL STUDENTS?



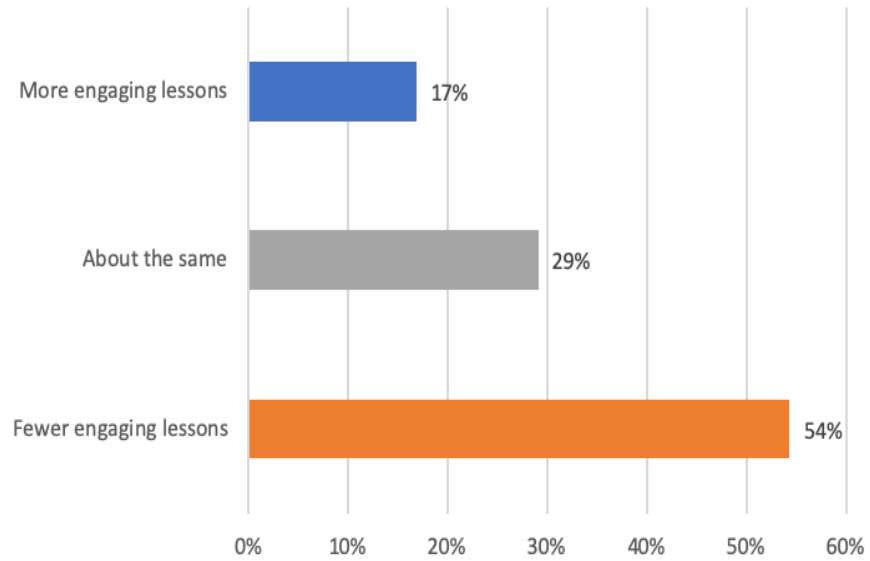
54%

OF STUDENTS  
SAID THAT THEY HAD  
LESSONS THAT  
ENGAGED THEM

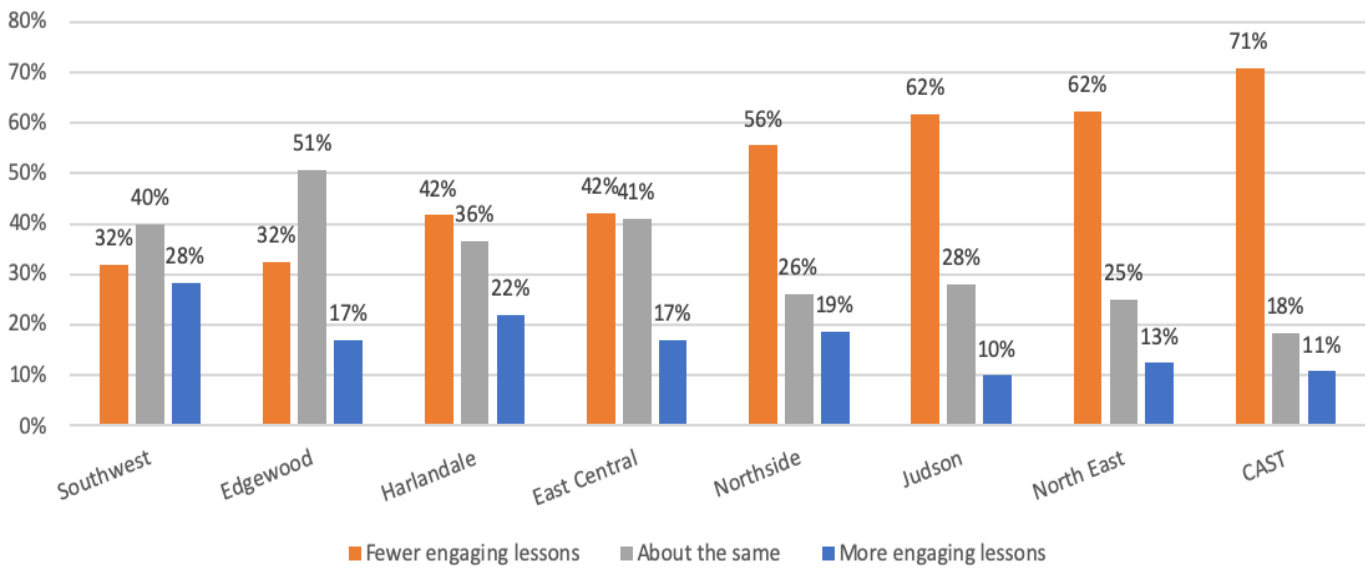
**LESS  
OFTEN**

DURING DISTANCE LEARNING

## HOW OFTEN HIGH SCHOOL STUDENTS FELT THEY HAD ENGAGING LESSONS COMPARED WITH PRE-PANDEMIC SCHOOLING



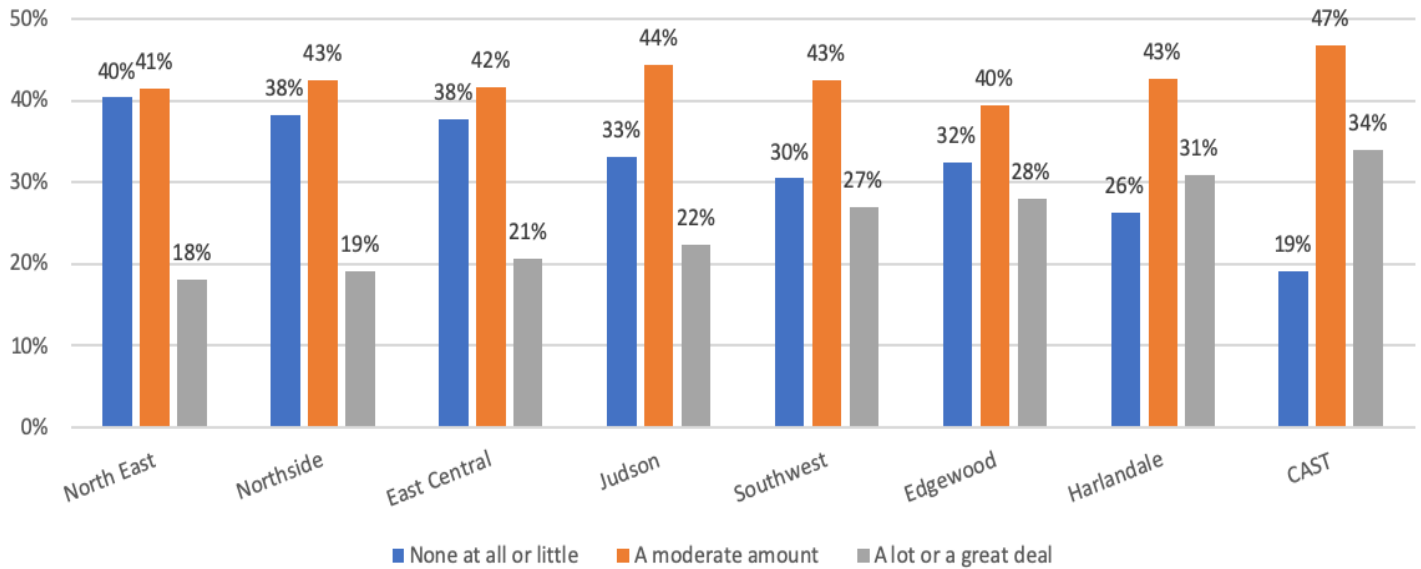
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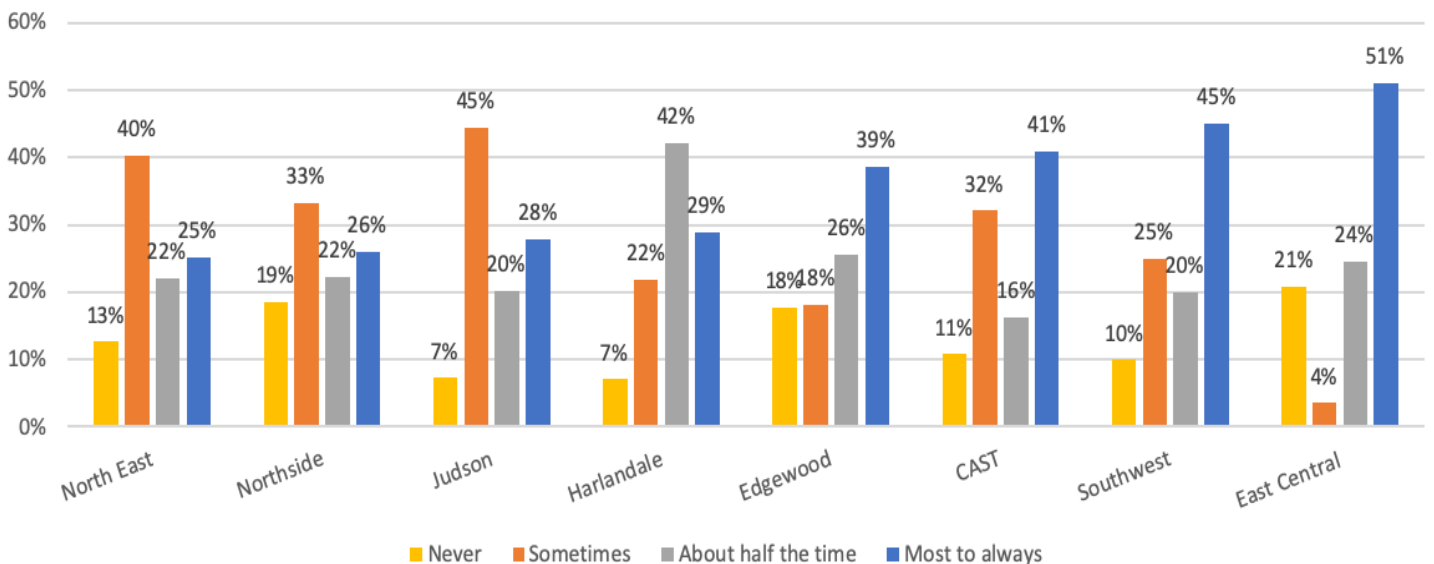
# STUDENT ENGAGEMENT DURING DISTANCE LEARNING BY SCHOOL SYSTEM

The three-month period in the spring of 2020 that students spent remote learning deserves focused attention. Whereas earlier tables depicted emergency distance learning compared to “normal” pre-pandemic schooling, we also wanted a unique look at this three-month window. Here, broken down by school system, respondents were asked to only describe the learning that occurred or didn’t occur during this sudden shutdown period without comparing it with former experiences.

## EXTENT TO WHICH STUDENTS LEARNED DURING DISTANCE LEARNING, BY SCHOOL SYSTEM

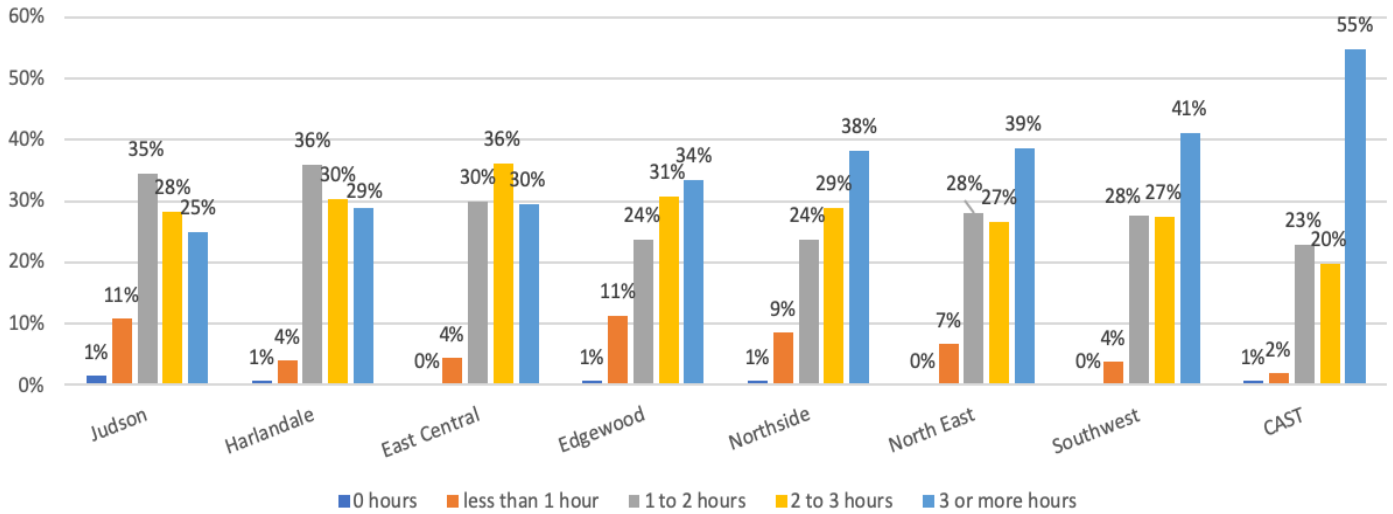


## HOW OFTEN HIGH SCHOOL STUDENTS REPORTED HAVING ENGAGING LESSONS DURING DISTANCE LEARNING, BY SCHOOL SYSTEM

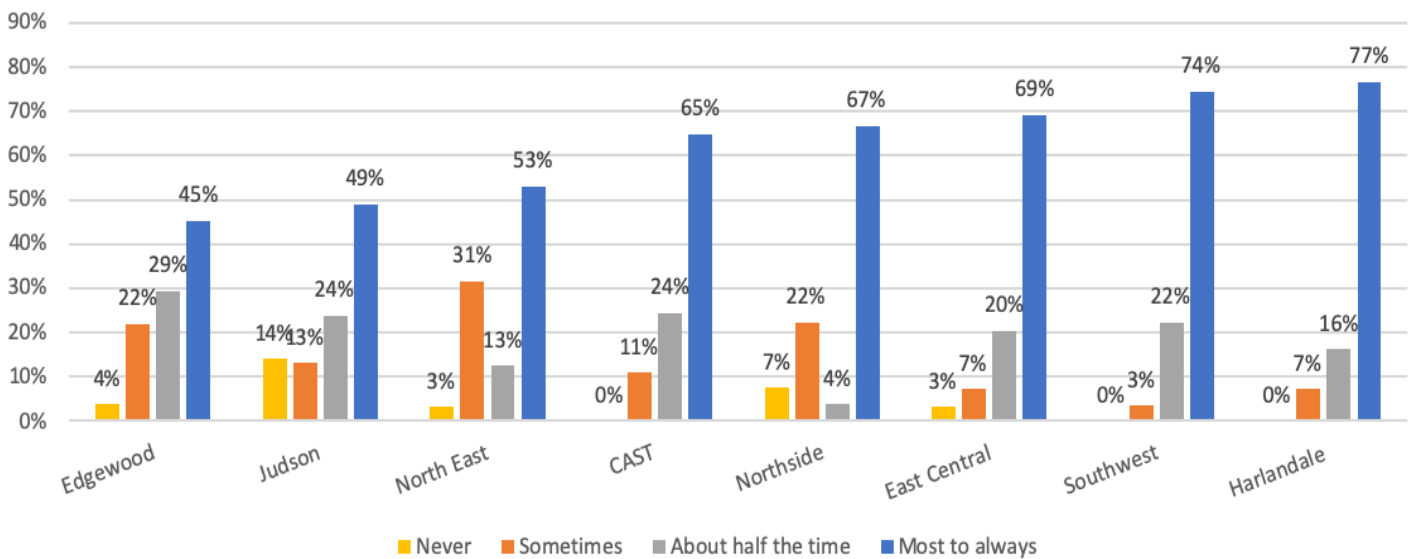




## HOW MUCH TIME STUDENTS SPENT DAILY ON SCHOOLWORK DURING DISTANCE LEARNING, BY SCHOOL SYSTEM



## HOW OFTEN STUDENTS FELT CLASSES CHALLENGED THEM TO DO THEIR BEST WORK DURING DISTANCE LEARNING, BY SCHOOL SYSTEM



# WHAT WORKED

Students and parents at home longed for what makes the typical classroom special: dynamic, face-to-face lessons where learners can interact with teachers and their peers. With quality distance learning, that environment can be recreated two-dimensionally with “synchronous,” or live, lessons utilizing entertaining multimedia technologies and platforms. Things like virtual breakout rooms and screen-sharing encourage emotional well-being because students and their peers can learn together and in small groups.

Creative, project-based assignments that gave students autonomy and choice proved most engaging for students. Teachers who were tech-savvy and who communicated early and often were most appreciated. Over and over, parents and students spoke of how helpful it was for teachers to send video tutorials on how to complete a lesson or how to use specific technologies or software. Show, don't just tell, they urged.

Teachers who were surveyed echoed a lot of the same recommendations on how to create and pull off engaging distance learning lessons. They found they were able to keep student interest and motivation high when they used project-based and “gamified” (using interactive or competitive games) video lessons. They worked at personalizing time together by having students share creative work or talk about challenges they were facing – with learning and with life in general.

# WHAT DID HIGH SCHOOL STUDENTS SAY MADE LESSONS ENGAGING?



## **SYNCHRONOUS LESSONS FEATURING INTERACTION WITH TEACHERS AND PEERS**

Mentions of this topic described “face-to-face” interactions with teachers and peers at a scheduled time as among the most engaging components of distance-learning lessons.



## **STUDENT CHOICE**

Open-ended assignments that provided students autonomy and choice while giving students opportunities to create were mentioned in this topic.



## **QUALITY DIGITAL, INTERACTIVE CONTENT**

High-quality digital content and virtual experiences were mentioned most in this topic and included entertaining videos, class discussions, read alouds, and virtual tours or labs.



## **PROJECT-BASED ASSIGNMENTS**

Project-based learning was described most in this topic, with many students mentioning projects that didn’t require technology and got students working in different media.

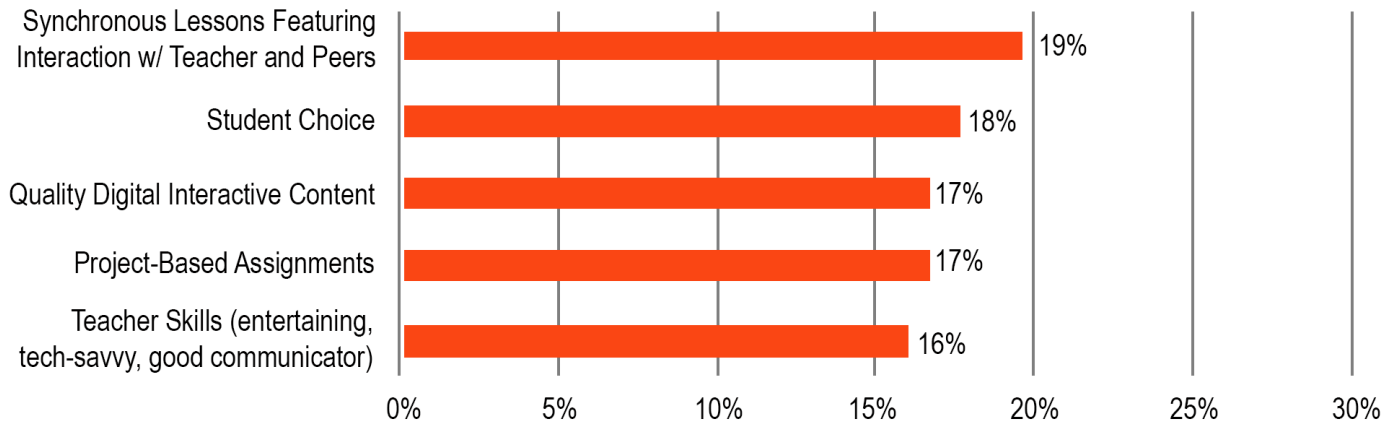


## **TEACHER SKILLS (ENTERTAINING, TECH-SAVVY, GOOD COMMUNICATOR)**

Specific qualities and traits of teachers were mentioned frequently in this topic, including a teacher’s ability to make things entertaining, communicate well, and use technology.

## HIGH SCHOOL STUDENTS' DESCRIPTIONS OF WHAT MADE LESSONS ENGAGING

Our analysis found high school students mentioned these topics when asked what things made lessons engaging during distance learning.



## WHAT THEY SAID:

*"[In English class] I did an inquiry project. I got to choose the subject, so I was able to do research on something I found interesting, so I stayed engaged."*

*- 12th grader*

*"I liked how, for example, for my aquatic science class, we were able to do a Kahoot [a game-based learning platform] while Zooming. It was really awesome to see everybody and laugh again."*

*- 11th grader*

# WHAT DID TEACHERS DO THAT WAS MOST HELPFUL?

Responses from parents and students ages 16 and older



## CLEAR AND FREQUENT COMMUNICATION

This topic included mentions of a teacher's ability to communicate clearly, frequently, and in a timely manner with both students and parents.



## PROVIDED SOME SYNCHRONOUS LEARNING TIME

Descriptions of small-group and whole-class learning time that occurred live on platforms like Zoom and Google Meet comprised the bulk of mentions in this topic. The ability to interact with the teacher and other students in a live environment was praised.



## SMART, EFFICIENT, AND EFFECTIVE USE OF TECHNOLOGY

Teachers who were digitally organized, tech-savvy, creative, and efficient on online platforms were described in this topic. This included mentions of teachers providing video tutorials for both lesson content and how to use required technology.



## PROVIDED ONE-ON-ONE TIME

In this topic, mentions of teachers providing one-on-one time with individual students were prominent. Teachers who offered individual encouragement, motivation, and tutoring, often through video chats and other methods, were praised as most helpful.

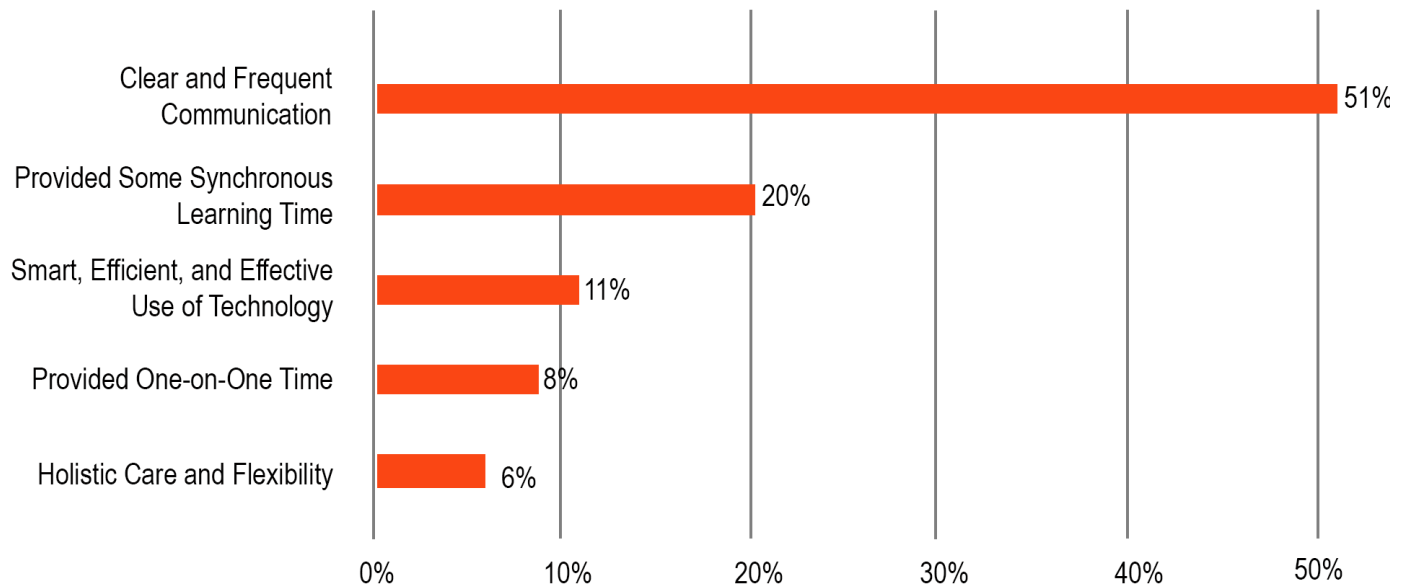


## HOLISTIC CARE AND FLEXIBILITY

Teachers who checked in with students beyond academic performance, expressed care and concern, offered grace, flexibility with deadlines, and make-up opportunities were described in mentions of this topic.

## MOST HELPFUL TEACHER ACTIONS

Our analysis found students and parents mentioned these topics when asked what things teachers did that were most helpful during distance learning.



## WHAT THEY SAID:

*"[My child's teacher] was quick to respond, she put up videos frequently. She was amazing. She was there for our student inside and outside of school, and she juggled her own home life as well."*

*- Parent of Kindergartner*

*"[My teachers] made videos for us which were really interactive with Zoom calls and everything, which really helped. They made little jokes and everything. It felt like we were still able to be connected while not at school."*

*- 12th grader*

# WHAT DID TEACHERS SAY MADE LESSONS ENGAGING?



## VIDEO-BASED LESSONS

In this topic, teachers described videos as more engaging than written instructions. They also said that watching content sourced from YouTube or created by teachers engaged students in learning tasks.



## CREATIVE, PROJECT-BASED LESSONS

Descriptions of project-based learning dominated this topic, with specific mentions of assignments that invited student creativity, artistic expression, experimentation, and hands-on activities.



## “GAMIFIED” LESSONS

Lesson activities presented in the context of an interactive game or competition were frequently mentioned in this topic. Teachers described specific platforms like Kahoot, Gimkit, Quizziz, Padlet, and Quizlet Live as the most useful in this category.



## INDEPENDENT READING OR READ-ALOUDS

Lessons that invited students to engage with stories through reading or following along with read alouds were described in this topic. Teachers mentioned both pre-recorded and live read alouds in this topic, along with opportunities for students to read for pleasure.

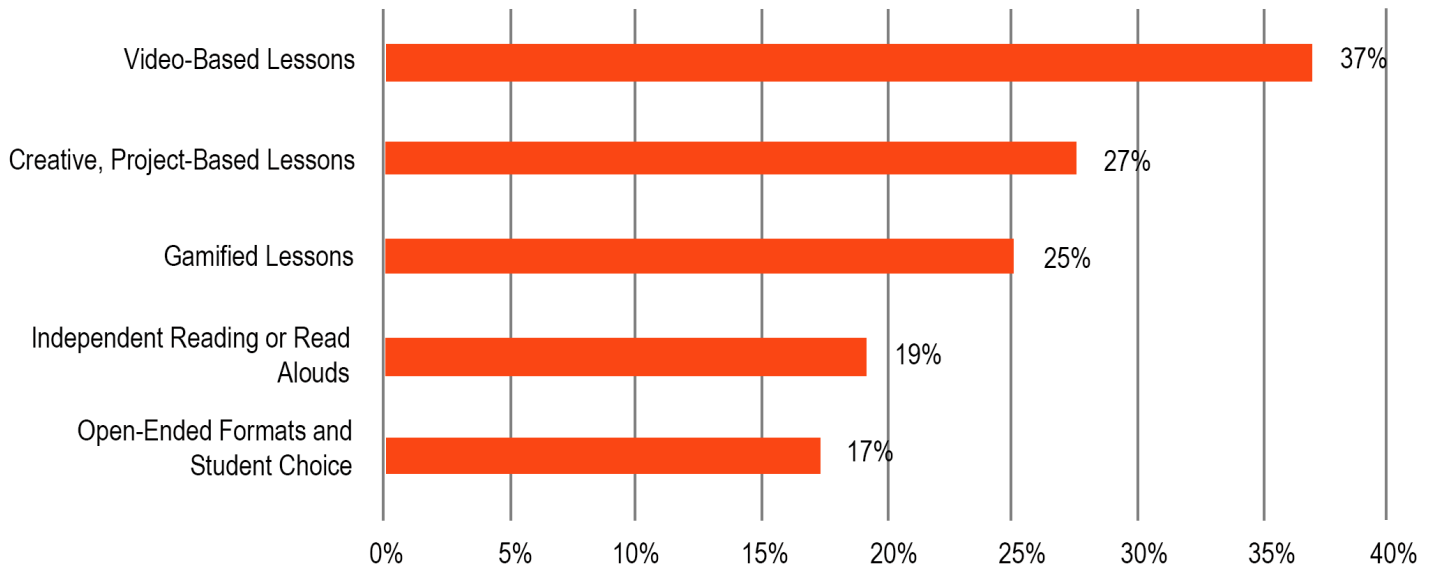


## OPEN-ENDED FORMATS AND STUDENT CHOICE

This topic included assignments that allowed students flexibility in the content of their response as well as in the format. Creative writing, class discussions, and work featuring student choice and autonomy were described most.

## TEACHERS' DESCRIPTIONS OF WHAT MADE LESSONS ENGAGING

Our analysis found teachers mentioned these topics when asked what things made lessons engaging for students during distance learning.



## WHAT THEY SAID:

*“Most of the time we [teachers] would tie a lesson to a video clip to grab their attention. We ended up giving [students] several choices to choose from so they could pick what they were interested in working on [...] to make it more likely that they would finish.”*

*- Middle school teacher*

*“I think the best lessons were when students actually attended class on [Google] Meet. Then we could talk to each other directly and usually we would play Quizlet Live [a virtual review game] at the end of the session to practice vocabulary. I think they enjoyed that.”*

*- High school teacher*



# AREAS FOR IMPROVEMENT

Students were bored by “busy work,” worksheets, and written responses to passive reading or viewing. Traditional formats like fill-in-the-blank lessons and quizzes weren’t engaging. Teachers agreed, too, saying they found those methods outdated in an online context. Anything built around slide presentations, notetaking, and pre-packaged online content from textbook companies proved ineffective, teachers said. Asked what educators could have done to be more helpful, students and parents asked for more communication and clear expectations, as well as more synchronous lessons with engaging formats. The majority of those surveyed, however, said teachers did a good job given the circumstances.

# WHAT DID HIGH SCHOOL STUDENTS SAY MADE LESSONS UNENGAGING?



## WRITTEN RESPONSES TO PASSIVE READING/VIEWING

Writing assignments without the context of discussion or interaction represented the bulk of this topic. In particular, students mentioned repetitive “daily journaling” and assignments where they were given a video to watch or a passage to read, and then were asked to respond in writing with no other interaction.



## NON-INTERACTIVE CONTENT AND QUIZZES

This topic included mentions of activities where students were asked to consume content passively (video, reading passage, lecture) and respond in traditional formats like quizzes and fill-in-the-blank, low-level question prompts.



## “BUSY WORK” AND REVIEW MATERIAL

Mentions in this topic included work that was not intellectually challenging or that was simply repetition and review of prior work.



## LESSONS WITHOUT ACCESS TO TEACHER HELP AND SUPPORT

In this topic, the common theme was a lack of availability and teacher support to complete the lesson. When teachers weren’t available or accessible and students struggled, they tended to disengage from the lesson.

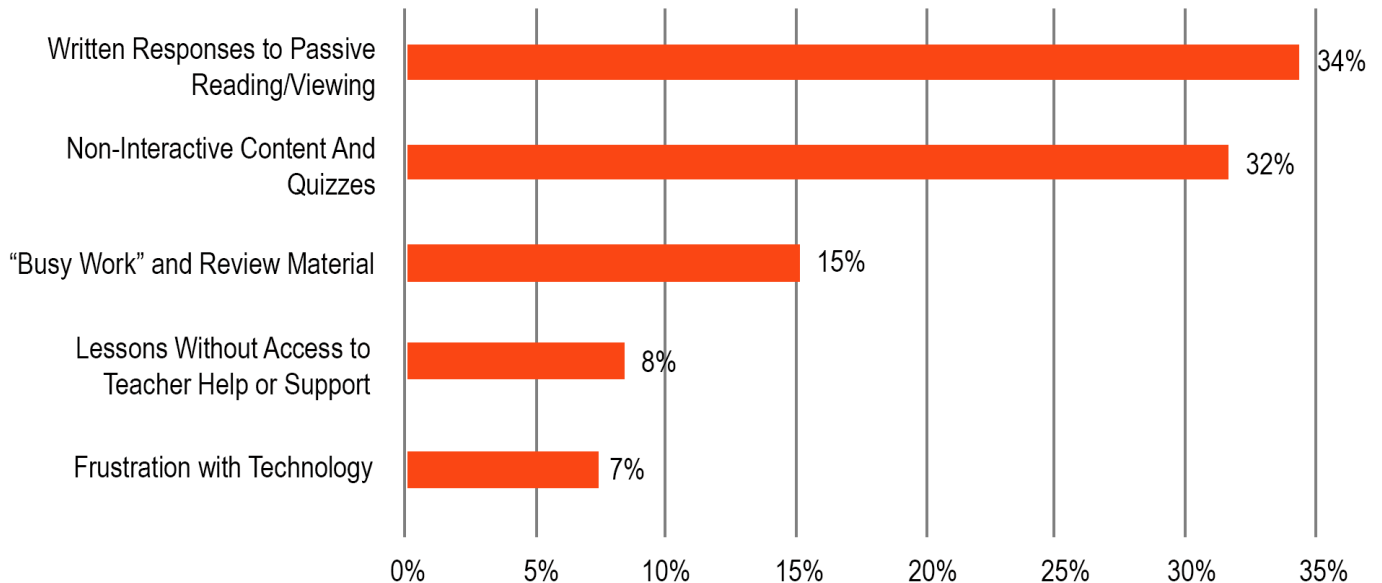


## FRUSTRATION WITH TECHNOLOGY

Technology not working properly, a lack of training or tech help, and an overwhelming number of tech platforms that were complex to navigate rounded out the mentions in this topic. When the technology was frustrating, students didn’t engage.

## HIGH SCHOOL STUDENTS' DESCRIPTIONS OF UNENGAGING LESSON TOPICS

Our analysis found high school students mentioned these topics when asked what things made lessons unengaging during distance learning.



## WHAT THEY SAID:

*“A lot of lessons were just non-stop packets of reading. Reading has to have a hook to get my attention. If it’s too much reading, I can’t get into it.”*

*- 10th grader*

*“My physics class was completely lacking because we weren’t doing labs. [My teacher] didn’t hold any Zoom meetings for us to talk about what we were learning.”*

*- 11th grader*

# WHAT DID TEACHERS SAY MADE LESSONS UNENGAGING?



## READ-AND-WRITE ASSIGNMENTS

Any non-interactive activities with too much reading or writing were described as not engaging in the mentions of this topic.



## DIGITAL WORKSHEETS/FILL-IN-THE-BLANK

This topic included mentions of outdated methods converted to digital versions, such as worksheet-style tasks, multiple choice quizzes, and “busy work.”



## PASSIVE, ASYNCHRONOUS VIDEOS

Lessons where students were asked to passively watch recorded, asynchronous videos followed by low-level questions were mentioned as not engaging. Included in this topic were mentions of the students’ inability to ask questions during pre-recorded lessons.



## REPETITIVE TASKS AND FORMATS

In this topic, teachers described tasks that were repetitive from week to week, and the overuse of the same choice boards (which are menus of lesson assignments to choose from) that rarely changed or varied.



## SLIDE PRESENTATIONS AND NOTES

Lessons that were built around slide presentations, notetaking, and other methods where students were asked to passively consume information or only engage in limited ways were described as not engaging in this topic.

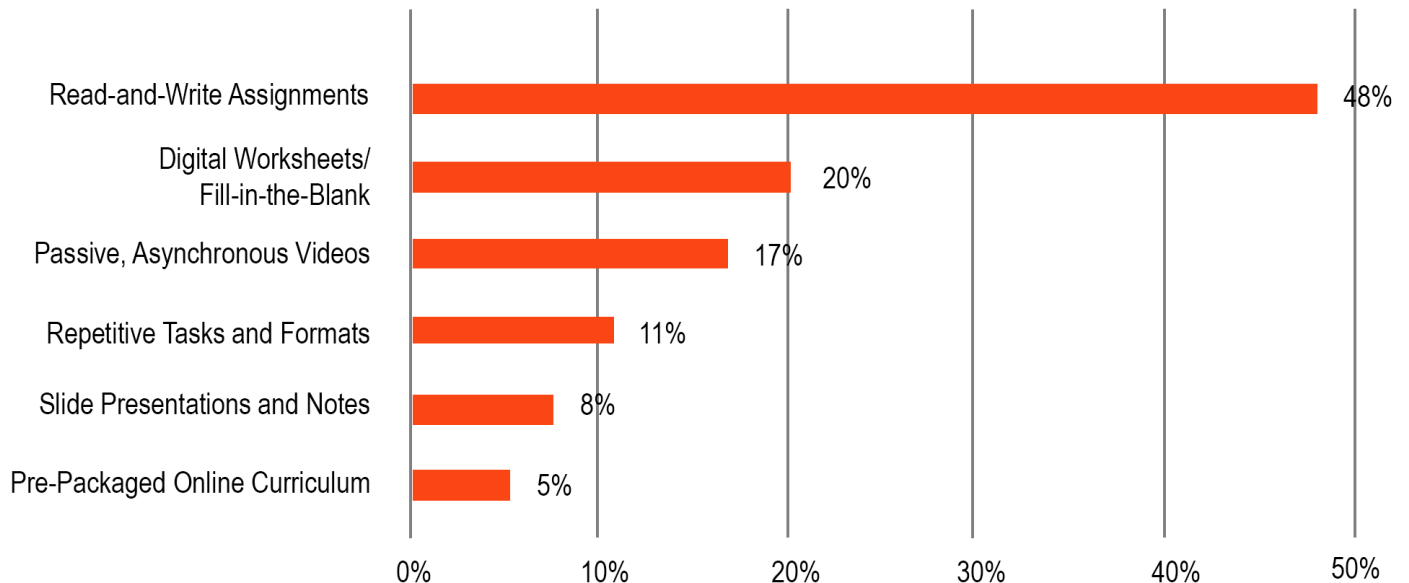


## PRE-PACKAGED, ONLINE CURRICULA

These topics included online content provided by textbook companies (such as Pearson), as well as platforms typically used for credit recovery (such as Edgenuity).

## TEACHERS' DESCRIPTIONS OF UNENGAGING LESSON TOPICS

Our analysis found teachers mentioned these topics when asked what things made lessons unengaging for students during distance learning.



## WHAT THEY SAID:

*“Students did not like watching videos of lessons. Even though I was recording myself and they could hear my voice, they missed being able to have their questions answered immediately.”*

*-High school teacher*

*“Google Slides that had a lot of reading and filling in answers were not popular. [Students] wanted something more interactive. [Google Slides] have value, too, but I feel like these kinds of read-and-answer type activities are better done in collaborative groups to keep students engaged.”*

*-Elementary school teacher*

# WHAT EFFECTIVE ASSESSMENT METHODS DID TEACHERS DISCOVER?



## OPEN-ENDED AND PROJECT-DRIVEN

Assignments that allowed for a range of student responses and empowered students to create something (original writings, products, videos, etc.) were included in this topic.



## DIRECT FEEDBACK FROM TEACHERS

Immediate feedback and comments directly to students about their work, progress, and questions through email, Google Forms, Google Docs, or Google Classroom were listed as useful assessment strategies in this topic.



## CLASSIC, CLOSE-ENDED QUESTION QUIZZES

This topic included the use of different platforms to assign traditional quiz/test content with multiple choice, short answer, or fill-in-the-blank responses.



## 1-ON-1 CONFERENCING VIA LIVE CHAT

Individually or in small groups, “face-to-face” conversations, check-ins, and synchronous activities were praised as reliable assessment methods in this topic.



## STANDARD-ALIGNED RUBRICS

Assessment tools like rubrics created by teachers or by external sources that were clearly aligned to specific standards were described by teachers who mentioned this topic.



## CREATIVE ACTIVITIES USING INTERACTIVE DIGITAL TOOLS

In this topic, teachers described digital tools that invited students to be interactive and creative rather than passive or only consuming content. They mentioned tools such as Flipgrid and Google Slides most frequently.

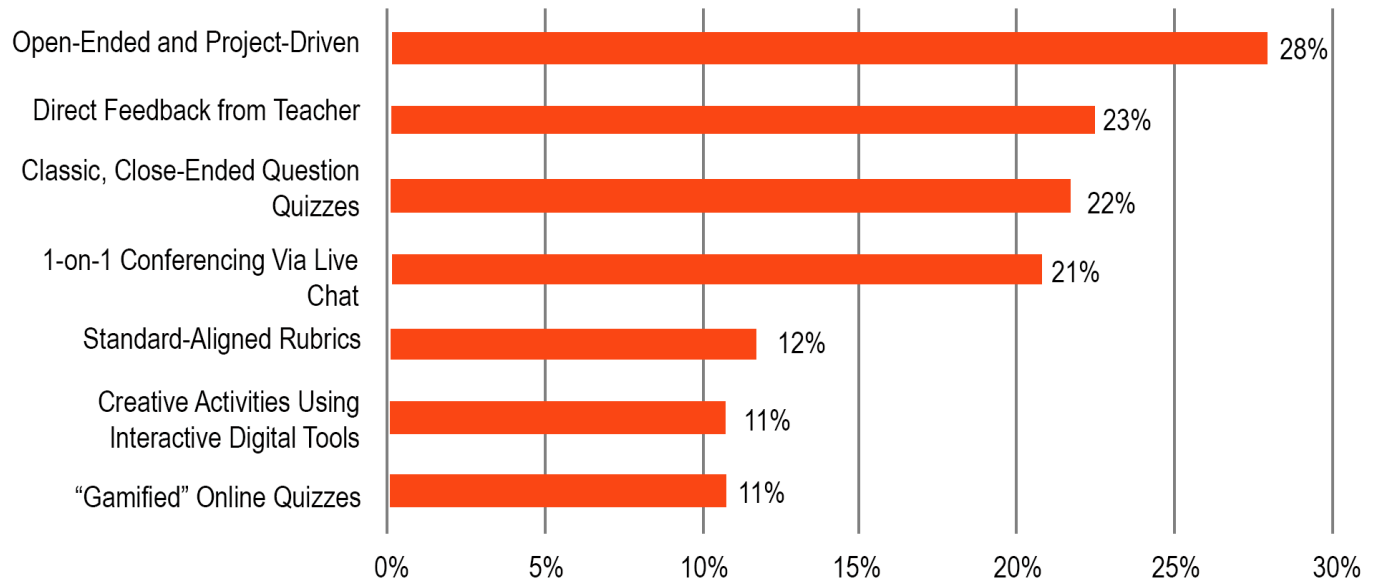


## “GAMIFIED” ONLINE QUIZZES

This topic included assessments presented as games, including Kahoot and Quizziz.

## TEACHERS' DESCRIPTIONS OF EFFECTIVE ASSESSMENT METHODS

Our analysis found teachers mentioned these topics when asked what effective assessment methods they discovered during distance learning.



## WHAT THEY SAID:

*"I had assignments that had questions at different levels of thinking and understanding. Grades reflected how well they got through the multiple levels of thinking."*

*- High school teacher*

*"I had the children show and tell me what they have learned through projects. I know what they have learned when I can see/hear their retelling."*

*- Elementary school teacher*

# PARENT AND STUDENT RECOMMENDATIONS FOR IMPROVING DISTANCE LEARNING

The survey asked parents and high school students what teachers, schools, and districts did that was most helpful during distance learning, and what could have been done to be more helpful. These open-ended questions allowed respondents a full-range of responses, and the major themes have been captured in preceding sections of this report. We provide a sampling of detailed responses and interesting ideas generated by parents and older students below.

## BRIGHT IDEAS a sampling of parent and student responses



### ON HOLISTIC, WRAP-AROUND SUPPORT FOR STUDENTS AND FAMILIES:

- “[My child’s teacher] was very supportive given the difficulties we were having. She even came to drop off supplies to the house. I don’t know if she got it out of her pocket or not, but she brought sharpeners and pencils and crayons.”  
-Parent of Kindergartner
- “One of the teachers was very good about making sure the students had to connect with each other. [The teacher] prioritized friendships. [The students] were still able to talk to each other and be silly. It was really awesome that the teacher made sure they were still connecting over distance.” -Parent of 2nd grader
- “One of my teachers made an Instagram account to inspire us to get to work.”  
-12th grader



- “I think just being understanding in this time of uncertainty was great.”

-Parent of 9th grader

- “[The school’s] social worker was awesome. He sent us links to agencies that would provide food and rental assistance, and his communication was great. We got a text message every day from the social worker, which was great.”

-Parent of 5th grader

- “I’m proud of [my daughter] and I’m proud of the teachers. There were a lot of them that helped, and I am grateful for everybody. They made me feel like somebody out there is thinking of me and my family. I would pick up lunch from [the school] sometimes. They got us a laptop and internet.”

-Parent of 7th grader

- “[School staff] even called us to let us know that the school was offering free meals and community events such as the food pantry. The principal was available whenever we picked up school meals. The school counselor checked in on my son, too.”

-Parent of 4th grader

- “The school helped a lot. They came by with food, and I was there to pick up materials. They even gave me dog food [for my dog]. Even when I didn’t ask, they came to my house to see if we were okay.” -Parent of 4th grader

- “The College and Career Center was a little robotic. I felt like it was our senior year and the students needed a lot of help. Other schools had Zoom calls with colleges and motivational speakers. There needed to be more people available at the College and Career Center to help all the students out.” -12th grader



#### **ON COMMUNICATION FROM SCHOOLS, DISTRICTS:**

- “My son’s campus was very communicative. They took an extra week where students got used to everything first and then they announced their blueprint. They didn’t just immediately dive into starting new learning.” -Parent of 8th grader
- “Announcements [from the school] every morning were really helpful.”  
-Parent of 1st grader
- “I know they sent out a lot of Reminds [text messages from school staff], which would also help, but could be kind of overwhelming, getting them from everybody.”  
-Parent of 3rd grader
- “The counselor’s newsletters and the daily emails from them and other staff for support were really helpful.” -Parent of 9th grader
- “I appreciated the NISD communication on the Facebook page. Lots of updates were given.” -Parent of 2nd grader
- “I would have liked to see the principal be more involved, like [with] a weekly message. I did not feel we had good communication from the principal at all.”  
-Parent of 1st grader

- “I don’t think anyone knows what the future landscape is gonna look like. I think it would benefit parents to have weekly updates about where the district stands and the course of action to help keep peace of mind. But I understand that it’s an extremely dynamic situation.” -Parent of 8th grader

- “The administration could’ve sent out videos saying, ‘I hope you guys are being safe.’ Just more communication [from the school/district] with students, rather than just from the teachers.” -12th grader

- “I think if our administrators had given more guidance, that would have been helpful. We [students] never really got like a newsletter, I think that would’ve helped us keep updated with everything.” -11th grader

- “One of [my daughters’] teachers sent out a weekly report to update me about whether [my daughter] turned in assignments. Without that report, I wouldn’t have known what she was missing. I was able to help [my daughter] right away.”  
-Parent of 4th grader

- “[My child’s school] kept in contact. We had good communication throughout the entire time. The teachers were very supportive - they even came by the house with [school supplies] and a sign for the yard!” - Parent of Kindergartner



#### **ON SUPPORT FOR PARENTS:**

- “[It would have been nice to have] a group chat for the parents specifically intended for the parents to reach out to each other, ask questions, get advice from each other, and bounce ideas off each other.” -Parent of 4th grader

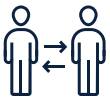
- “[It would have been nice for the school to] teach the parents and grandparents computer technology.” -Parent of 2nd grader

- “Having someone who was on call [to help with technical difficulties] could have been helpful.” -Parent of 4th grader

- “Maybe offer some training to parents so that they can go on and use Google Classroom and help with navigating it. Proper training for parents would have been good. Many parents were lost and kids were struggling. It was a learning curve for everyone.”  
-Parent of 4th grader

- “It would have been helpful to have scheduled Zoom conference times with parents and teachers.” -Parent of 6th grader

- “I think [schools/teachers] could have done conferences or calls with parents over Zoom like once a week to show parents how to help their kids.”  
-Parent of 3rd grader



#### **ON ONE-ON-ONE SUPPORT FOR STUDENTS:**

- “The most helpful thing the teacher did was arrange one-on-one meetings with [my son]. He is a hands-on learner and that really helped him. The class he was in was really big, so he really needed to sit by himself and to be helped individually.”  
-Parent of Kindergartner

- “One of my teachers would keep up with me regularly. I wish all of my teachers kept up with me.” -10th grader

- “[My teachers] would text me every day saying I had to do it because I was going to be a senior next year. They texted me every day saying that I could do it, and it motivated me.” -11th grader
- “It would have been better for us to have math tutors to better explain how to do problems. Other than that, I think they did a pretty good job trying to help us.”  
-12th grader
- “As we all transitioned, I feel [teachers] did their best to quickly transition from campus to home. But moving forward, we will have to try and implement some type of tutoring for the kids. Maybe some kind of hotline that kids can call to help them out.”  
-11th grader
- “[I’d like to see the creation of] a one-on-one tutoring program so the students have more time with the teachers.” -Parent of 9th grader



#### **ON SUPPORT FOR STUDENTS WHO HAVE SPECIAL NEEDS:**

- “I feel like they needed to be aware of the needs of the special education students and could have done social distancing for special education and maybe with kids that have English Language Learner support, too. They could have had tutoring times in person but with social distancing practice, so the special education students were still getting their needs met.” -Parent of 8th grader



#### **ON OVERCOMING LANGUAGE BARRIERS:**

- “They gave everything to us in English when we were not bilingual. I called to complain but they told me it was all they had and [my child] would have to work with that.”  
-Parent of 2nd grader

- “I would like it a little better if [teachers] had more ability to communicate with me directly. A lot of teachers that did not speak Spanish would sometimes not even bother to try and talk with me or find someone [who could translate]; they would just talk to my daughter instead and let her translate, which is just not the same in my opinion. But I understand that it can be hard sometimes.” -Parent of 7th grader



#### **ON TECHNOLOGY SUPPORT AND STREAMLINING PLATFORMS AND PROCESSES:**

- “I had issues with some teachers using one format and other teachers using another format. Maybe have everything done online and on the same format.”

-Parent of 6th grader

- “It could have been the same across the board. For example, when I went to the middle school to pick up devices and educational resources for those kids, it was different than the elementary school with my other son.” -Parent of 5th grader

- “It would help if schools used one platform for communication. When you have 5 kids, it’s harder to check different apps to stay up-to-date.” -Parent of 9th grader

- “The only thing that would have helped is if the school could have streamlined the communication from one source. We were getting information and passwords from multiple places.” -Parent of 2nd grader

- “[The school] provided us with a technology device and a hot spot for internet access.”

-Parent of Kindergartner

- “Sometimes we had to print things, so we had to buy a printer. It would have been better to send more work that doesn’t require printing. Many parents do not have a printer or money to buy ink.” -Parent of 8th grader

- “Offering the Chromebooks for checkout and hotspots – that was one of the biggest things we needed. Our internet is really slow at home, so letting us use those definitely helped.” -Parent of 3rd grader

- “They need to check out technology one per student, not just one per household. [My family only had] one laptop for 6 people. It was very difficult to share and [coordinate schedules for] all the classes that they needed.” -Parent of 2nd grader



#### **ON FLEXIBILITY FOR WORKING PARENTS:**

- “Some teachers scheduled Zoom meetings when some of us were working. They would schedule meetings when I was at work and [my child] would miss those meetings, and other students could’ve missed them too.” -Parent of Kindergartner

- “It was mostly up to the parents to get the assignments, but we only got one or two days off [from work] a week, so we ended up doing schoolwork mostly on the weekends and were usually unable to attend the weekly Zoom meeting.” -Parent of 2nd grader

- “The school should have given information to the single parents a day ahead. Giving information the same day was not helpful.” -Parent of 3rd grader

- “It would have helped for the school to be more flexible with returning laptops and picking things up from school. Most parents are working and cannot make the specific times.” -Parent of 9th grader

# METHODOLOGY

## **SAMPLING STRATEGY**

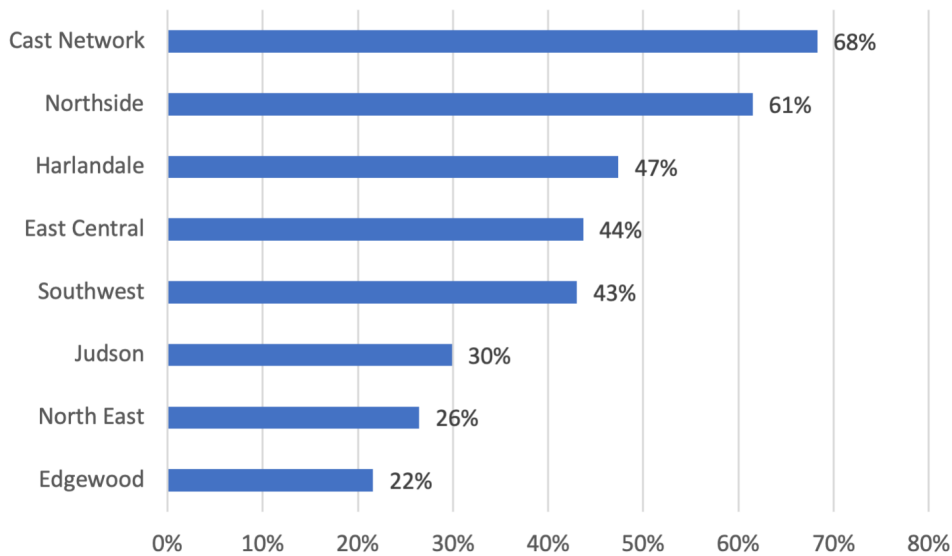
We adopted a stratified random sampling scheme to ensure the respective representation of all K-12 teachers and students in participating seven independent school districts (ISDs) and CAST Network schools. For the purposes of this section, we use the term “school system” to include the ISDs and CAST 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 on page 41.



## TEACHER SURVEY RESPONSE RATES BY SCHOOL SYSTEM

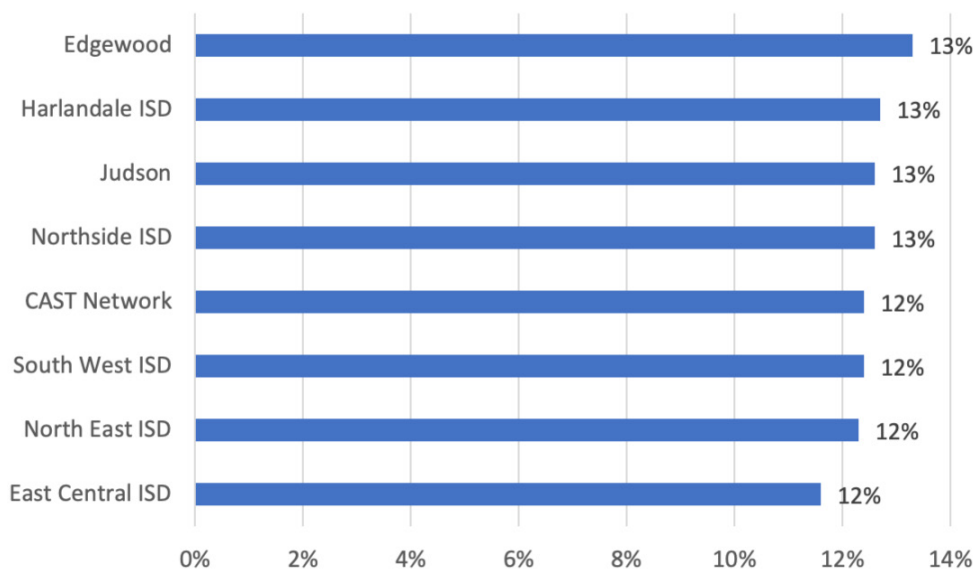


Additionally, we invited teachers in the CAST Network, which consists of four schools, including one with all grades (K-12) and the others with grades 9-12. We employed the same sampling strategy, and 68.3 percent of teachers in CAST Network completed the survey. The response rate by the type of school (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.

We also utilized student directories provided by participating school systems to determine the appropriate sample sizes. This approach enhanced our ability to calculate the weighted average of survey responses within and across school systems. We targeted around 136 randomly selected students to interview in each of the eight school systems. Samples were split proportionally according to the distribution of students by grade.

We interviewed parents of students ages 15 years old or younger, while students 16 or older were interviewed directly. A total of 1,125 parents and students participated in this study, comprised of 884 parents and 241 students from the ISDs, and 104 parents and 36 students from the CAST Network. See figure below for the detailed distribution of the sample across the participating school systems.

### PARENT AND STUDENT SURVEY SAMPLE DISTRIBUTION BY SCHOOL SYSTEM



## OPEN-ENDED ANSWERS

For the teacher 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.

For the student and parent survey's open-ended answers, we conducted human-based content analysis to identify the manifest and latent ideas within response data. We developed a coding system per question that was uniformly applied to quantify qualitative data. Researchers discussed their approaches and questions that arose during coding to improve inter-rater reliability.

## LIMITATIONS

This study may have two sources of biases stemming from the voluntary nature of study participation. Specifically, respondents voluntarily participated in the study as well as answered the questions. If certain characteristics of the respondents were correlated with survey response rates, our study results should be interpreted with caution.

# REFERENCES

Fredricks, J.A., Blumenfeld, P.C. and Paris, A.H. (2004) School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*. 74 (1), pp. 59–109.

# ACKNOWLEDGEMENTS

## **ABOUT THIS RESEARCH BRIEF**

This research brief was created through the contributions of a team at the Urban Education Institute that included our entire staff, a team of UTSA student field researchers, and through the insights and work of other contributors.

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