Remote Testing in Adult Education – Preliminary Findings

In 2020, adult education providers began to deliver CASAS tests remotely. As remote testing is now used to varying degrees, CASAS continues to analyze this alternate form of test delivery. What are adult students' perspectives on remote testing? How does adult student performance on remote testing compare to in-person testing? What do educators see as the benefits and drawbacks to remote testing? How can the remote testing process be improved?

This research brief presents preliminary findings using survey data and actual test data as we examine remote testing and the comparability to traditional on-site testing.

▶ Student Perceptions on Remote Testing

In 2021 CASAS is conducting a student survey to better understand students' remote testing experience. A total of 246 students from 15 agencies have responded to the survey.

Most remote test administrations took place in the student's home. Students overwhelmingly reported that they liked taking a test at home. See Figure 1.

Figure 1: Did you like taking a test at home?

I don't know, 16
No, 1
Yes, 186

When asked what they liked or disliked about taking tests at home, students generally responded with positive comments:

"I like doing my test in my home since I feel comfortable with my space."
"I think in my home I could focus more."

One student commented that "my home has many distractions." This demonstrates that testing at home does have unique challenges and may not be appropriate for all students.

Students generally did not feel that they would have scored higher in a different testing environment.
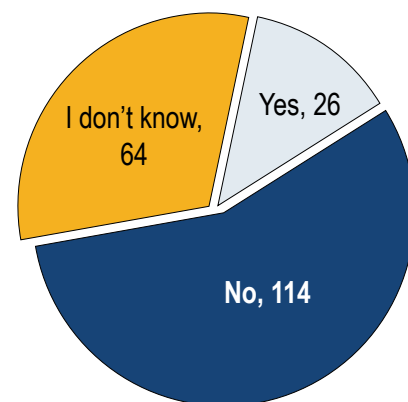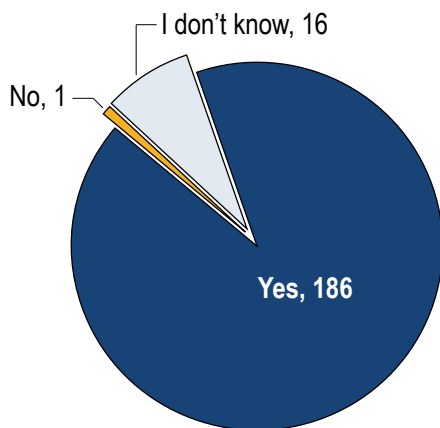
See Figure 2: Do you think you would get a higher score if you took the test at a different place?

I don't know, 64
Yes, 26
No, 114

Students overwhelmingly reported that they liked using their device to take the test. This was true across all approved devices. See Table 1.

Table 1: Did you like taking a test on your device?

	Yes	No	I don't know	Total Responses
Desktop	27	3	7	37
Laptop	105	5	5	115
iPad/Tablet	24	1	1	26
Chromebook	22	2	1	25

When students were asked what they liked or did not like about taking a test on their device the comments included:

"Internet was slow sometimes."

"I prefer my laptop because I know the functions 100 percent."

"I don't like taking a test on this device (Ipad/Tablet) because it doesn't have a keyboard."

"Well, this is my first time testing on an iPad, I am still learning and I liked it."

▸Student Performance Comparison

A main purpose of CASAS tests is to classify test-takers into the appropriate Educational Functioning Level for the National Report System (NRS EFL). Figures 3 through 6 visually illustrate student performance by NRS EFL classification for remote versus on-site test administrations during the 2020-2021 program year. Although it was impossible to test the same students both remotely and in person, when looking at aggregate testing numbers for the two delivery modes we see similar performance.

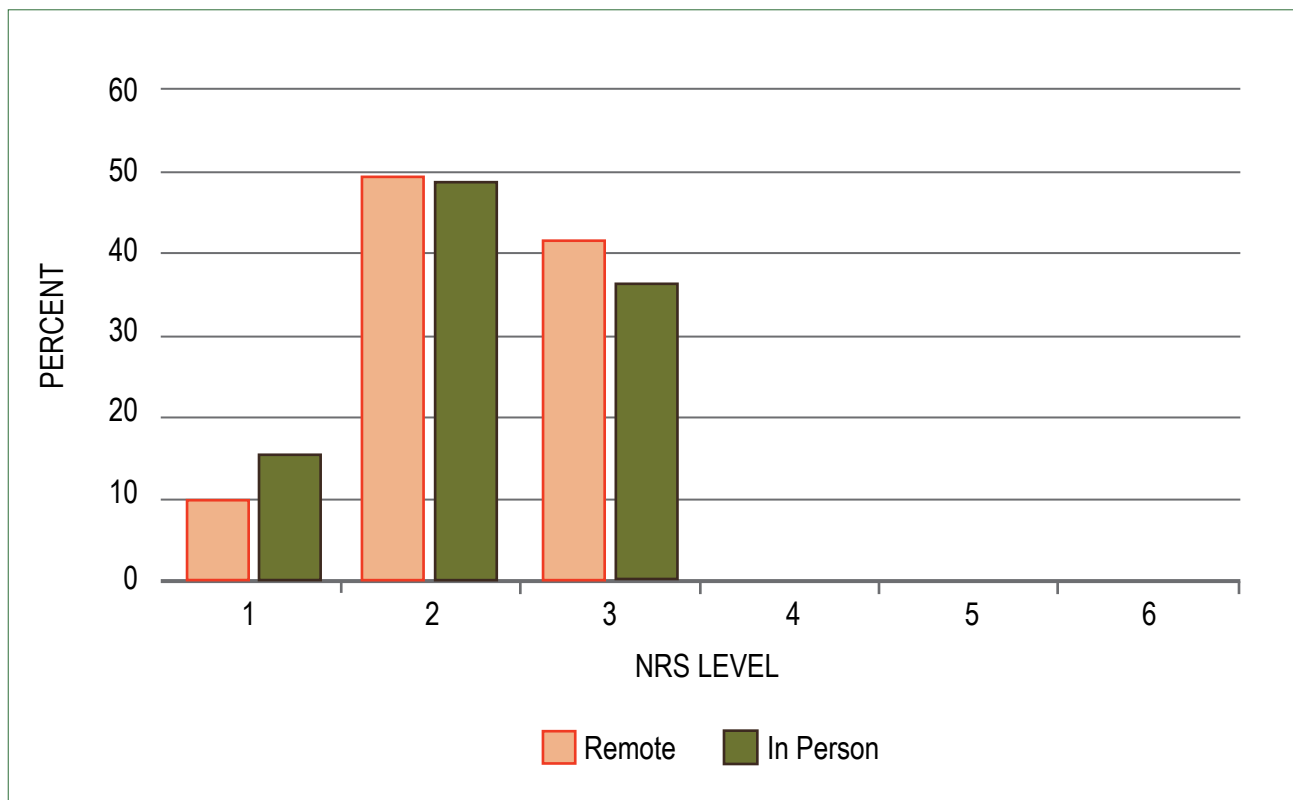**Figure 3:** Student Performance Comparison by NRS Classification – Lower-Level Reading Form

Figure 4: Student Performance Comparison by NRS Level Classifcation – Higher-Level Reading Form
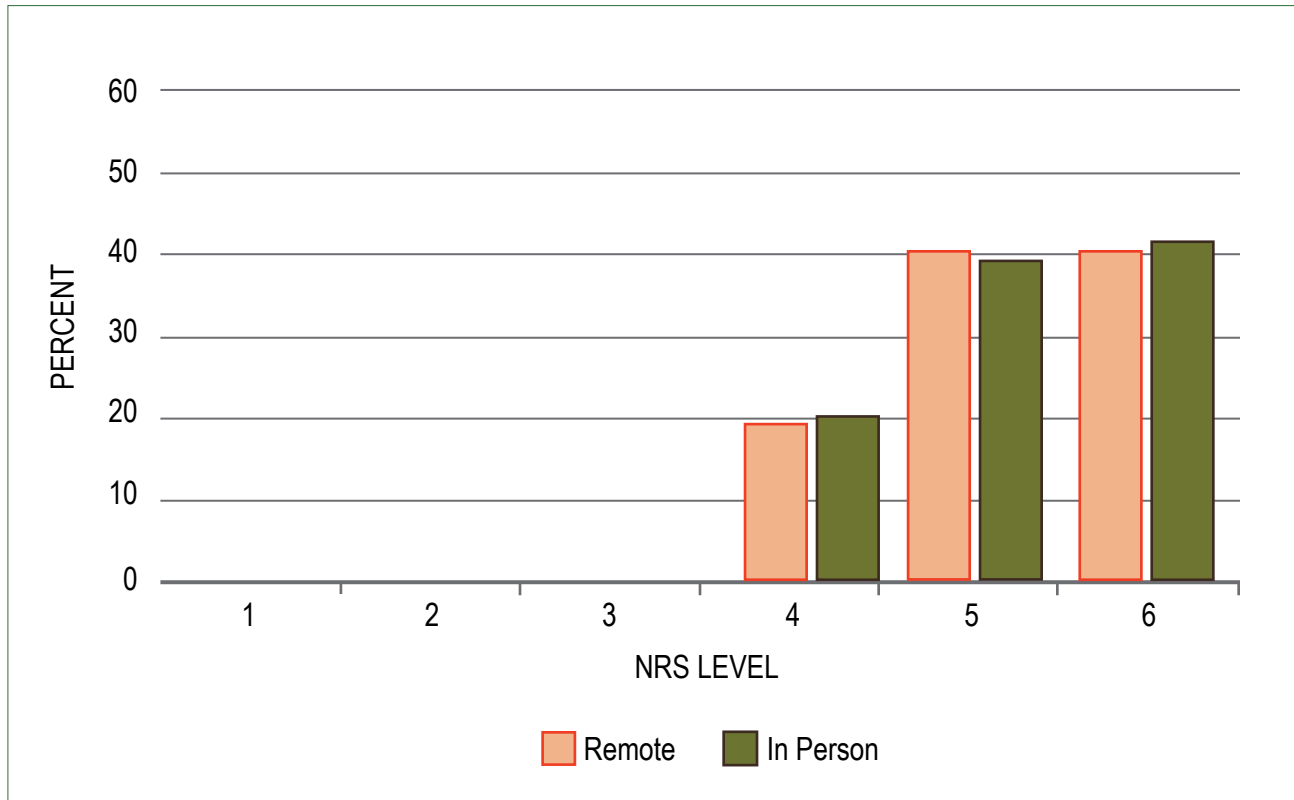

Figure 5: Student Performance Comparison by NRS Level Classifcation – Lower-Level Math Form
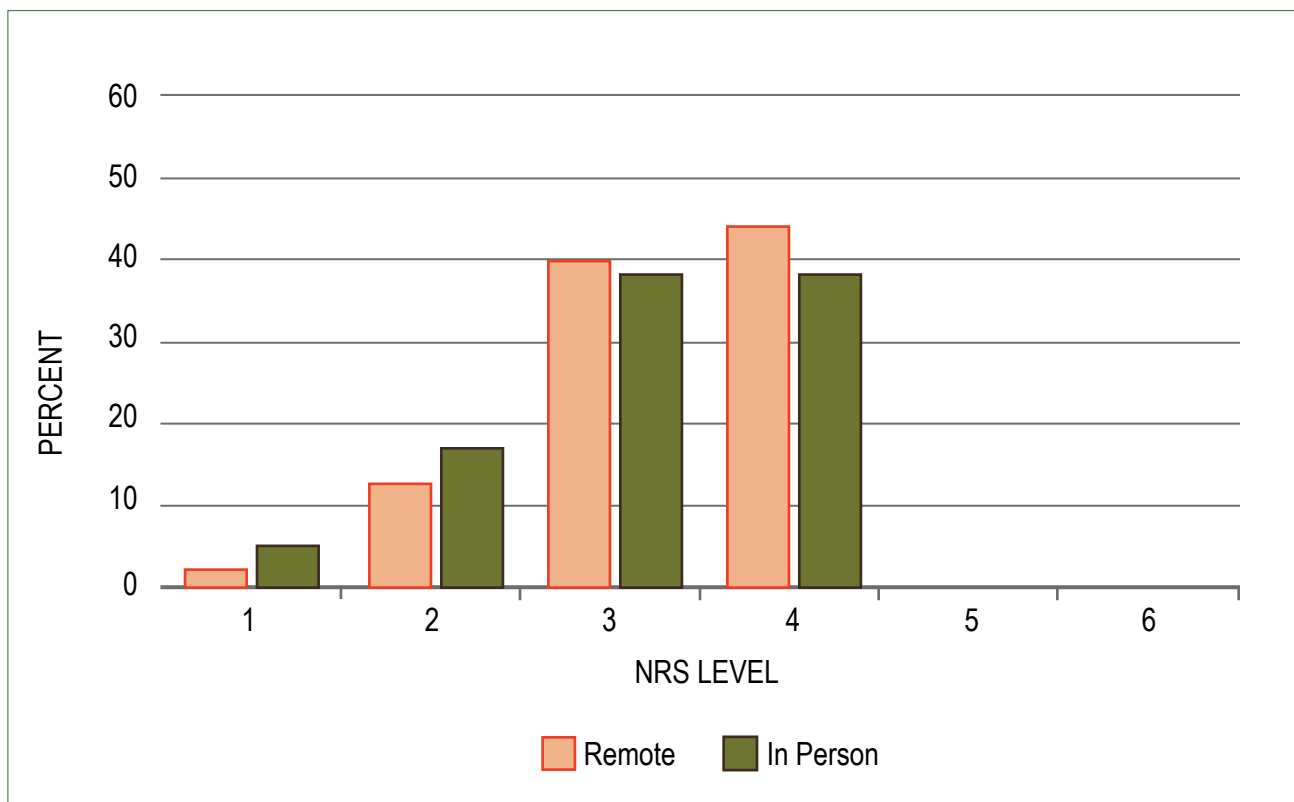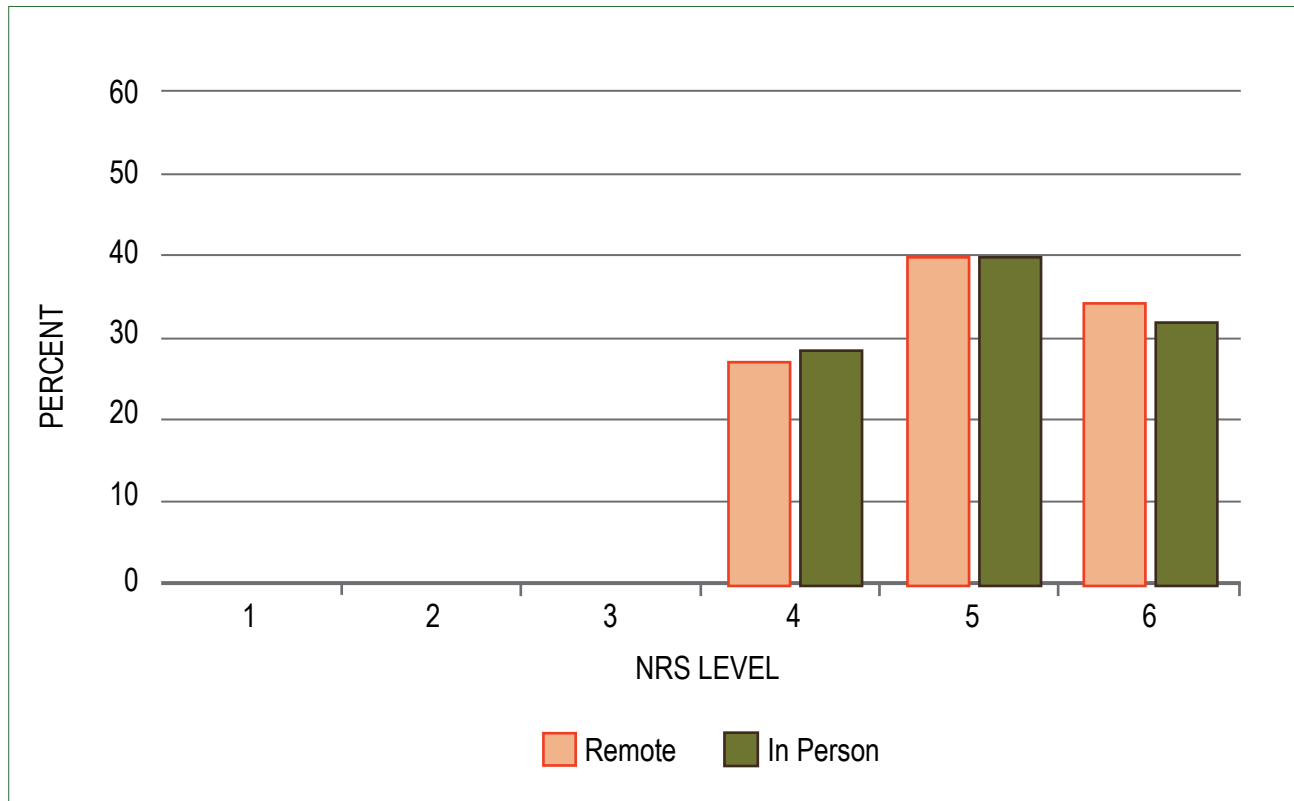
Figure 6: Student Performance Comparison by NRS Level Classifcation – Higher-Level Math Form

▸Test-Taking Time Comparison

Another important consideration is test-taking time. Would students' test-taking time increase with remote testing? Significant increases to test-taking time could affect the validity of the test and, specifically, score interpretations.

Initial training and set up for remote testing does take additional time. But an analysis of actual test administrations over a six-month period shows that test-taking time for remote testing, the time from when a student begins a test to when they finish, was comparable to that of on-site testing. See Table 2.

Table 2:Test Taking Time Comparison

	Reading			Math	
Form Level	Mean Test Duration*		Form Level	Mean Test Duration*	
	Remote	**In Person**		**Remote**	**In Person**
Low	14:36	16:56	Low/Intermediate	28:33	26:22
Intermediate	30:09	29:12	Medium	n/a	n/a
High	31:26	31:50	Intermediate/High	25:35	28:18

*Test Duration is expressed in minutes and seconds.

▸ Educator Perceptions on Remote Testing

A group of 41 adult educators were asked to react to several statements to share their perceptions on remote testing. They recorded their judgment from possible responses that were placed on the following Likert scale:

Strongly agree (5)
Agree (4)
Neither agree nor disagree (3)
Disagree (2)
Strongly Disagree (1)

The statements were:

Remote testing is comparable to the experience of in-person testing.
Remote testing has received a positive response from students.
Remote testing offered on phones would increase student access to testing.
Remote testing will continue to be offered by my agency in 2021, either exclusively or in addition to in-person testing.
Remote testing will continue to be offered by my agency in the long term, either exclusively or in addition to in-person testing.

Figure 7 presents the mean value, on the aforementioned Likert scale, of the educator responses for each statement. Results show that educators generally agreed or strongly agreed that remote testing received a positive response from students, that remote testing offered on phones would increase student access to testing, and that remote testing will continue to be offered by their agency. Each response had a mean greater than 4. Since "agree" has a value of 4 on the Likert scale and "strongly agree" has a value of 5, this can be interpreted as educators generally agreeing to strongly agreeing with the statements.

Results showed less agreement about whether remote testing is comparable to the experience of in-person testing with a mean response of 3.15. This can be interpreted as educators generally ranging from neither agreeing nor disagreeing to agreeing with the statements.

Because interpreting non-whole numbers on a linear continuum can be difficult to precisely interpret, we also looked at the "mode" or the most-cited responses. For each statement, the most often cited response was "agree". The second most cited response for each statement was "strongly agree" except for the statement *"is comparable to the experience of in-person testing"* where the second most cited response was "disagree".

Figure 7: Adult Educators Feedback on Remote Testing – Weighted Average
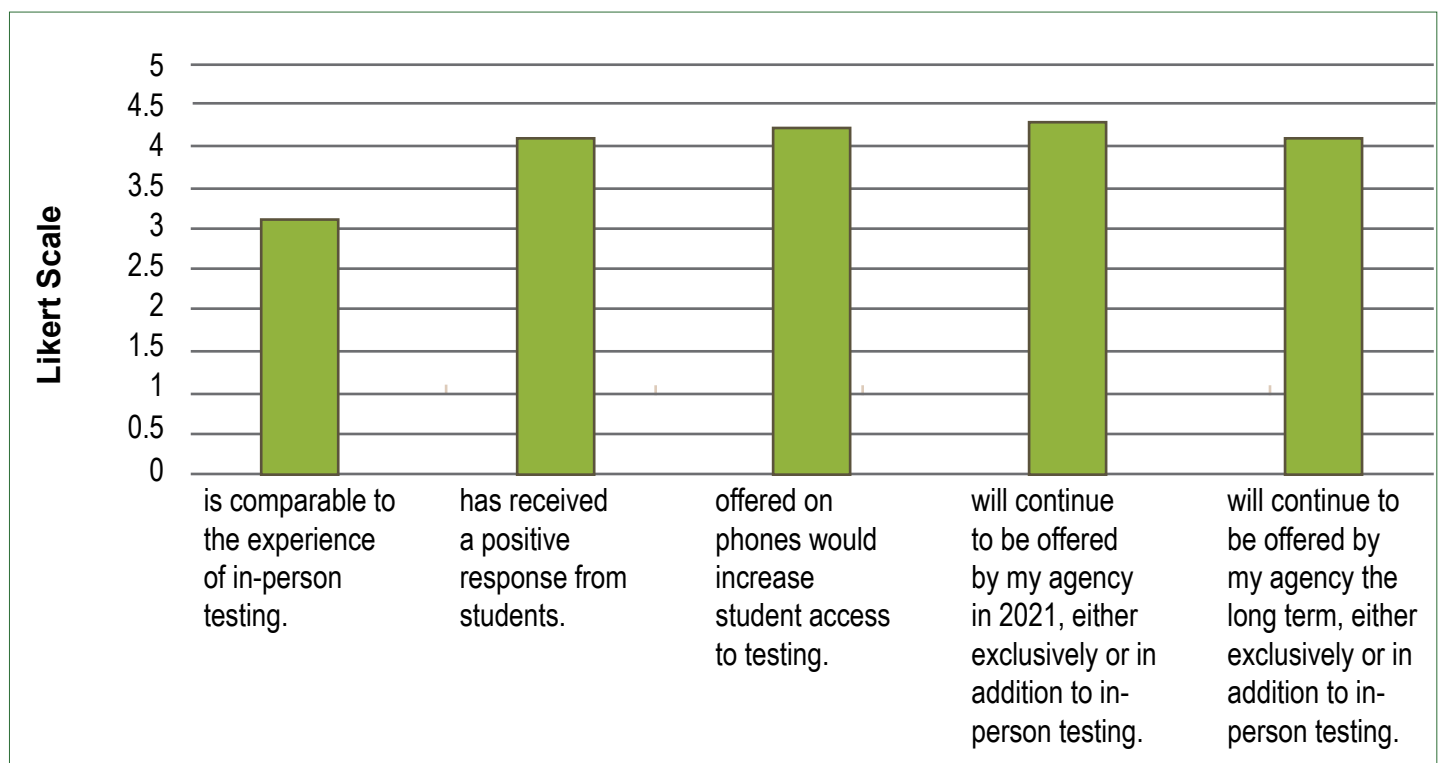
Educators were also asked a series of open-ended questions to get more detailed insight into their perspectives on remote testing. Some of their most representative and noteworthy responses are included here:

How do you feel about students testing with the delivery method they are most comfortable with (e.g., remote vs. in-person)?

"I believe that if we gear testing towards what students are most comfortable with we will get a greater response."

How do you feel about students testing on the device they are most comfortable with (e.g., computer vs. mobile device)?

"I feel whatever device the student feels most comfortable using will result in their best score."
"I think that will allow for more flexibility for students to test and increase accessibility."
"I like it. As long as it does not compromise security."

What are some of the benefits of remote testing compared to in-person testing?

"It eliminates the difficulties that many have with both time and transportation. It allows for a greater degree of flexibility."
"Lessens anxiety."

What are some of the drawbacks of remote testing compared to in-person testing?

"Some of the drawbacks are the lack of technology knowledge and the lack of devices."
"MONEY! Remote testing is very costly."
"Uncontrollable distractions."

Is there anything you think would be helpful in making remote testing more successful for students (e.g., resources, training, technology)?

"Technology and resources for students who do not have it at home."
"Training video for students beforehand showing them how to maneuver program."

Is there anything you think would be helpful in making remote testing more successful for agencies or schools (e.g., resources, training, technology)?

"More training and more research data provided to the agencies so they can improve the processes."
"Training more team/ staff to support testing a larger group."

What do you think the future is for remote testing?

"I believe remote testing is here to stay because it does allow us to test more students who feel more comfortable testing remotely."
"I think remote testing is here to stay and it will improve with time."
"Remote testing is the future of testing. So many of us use technology in everyday life and who does not like sitting in their easy chair and shopping online?"

▸ Conclusions and Future Research Directions

Preliminary results show that students responded very positively to remote testing and the devices they used to take CASAS tests. An initial analysis of test performance appears, in the aggregate, to show comparable results with on-site testing.

Educators concur that their students have had a very positive response to remote testing. They feel that remote testing is here to stay and can promote greater access to testing and less test anxiety. However, they are in less agreement that remote testing is a comparable experience to in-person testing. This feedback warrants further examination. Educators also voiced some concerns about training for students, especially low-level students, the ability to scale up to administer larger testing sessions, and the cost of remote testing.

Future research will focus on several areas. While aggregate results show similar performance between remote and on-site tests, more micro analysis is needed at local levels. Is the comparability of performance relatively consistent across agencies or are there differences based on how agencies have implemented remote testing? Is student access to technology and remote testing comparable?

How can remote testing be scaled to help decrease testing costs for agencies while continuing to ensure test security and academic integrity? Are there any differences in the remote testing experience compared to on-site testing that could have effects on test validity? These are questions CASAS will continue to research with the collaboration of adult students and educators from across the country.