

Usability Testing Report

Team #22 TeleHealth Insights

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Revision History

Date	Version	Author	Changes
April 1, 2025	1.0	Parisha Nizam	Added Clinician Feedback
April 3, 2025	1.1	Mitchell Weingust	Added Parent Feedback

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TeleHealth Clinician Usability Testing Instructions

Clinician Login Details

Username: [REDACTED]

Password: [REDACTED]

TeleHealth Insights Site: <https://telehealthinsights.netlify.app/>

Usability Survey

Please have the clinician complete the following form for 5mins upon completing all 3 scenarios:

<https://forms.gle/2NyV483i1Pp2meDdA>

Scenario 1 - Login using clinician login and add a new client

1. Ask clinician to add a new client. Explain what the security code is when it comes up
 2. Ask how easy that was, any feedback
-

Scenario 2 - Adding Bias

1. Instruct clinician to go to User Test, English Matching Wednesday March 19th 2025, with a score of 40%
2. Select question 1
3. Add bias to the question
4. What do you notice? Any feedback on the page?
5. Press the home button

Scenario 3 - Marking a repetition test

1. Instruct clinician to go to User Test, English Repetition Wednesday March 19th 2025
2. Watch Video Briefly
3. Click 1st question
4. Play Sound for the Question ID
5. Play the user's submitted audio answer
6. Grade it as correct/incorrect
7. Grade the remaining questions
8. Return to overall results
9. What do you notice? Any feedback?

Scenario 4 - Observing the Graph

1. Describe the graph, have then hover around it for dates: scores
2. Ask for feedback/thoughts on graph

TeleHealth Parent/Child Usability Testing Instructions

Usability Survey

Please have the parents/children complete the following form for 5mins upon completing all 3 scenarios: <https://forms.gle/izmWUf38F55xvUav8>

The MERLS platform standards for “Mandarin-English Receptive Language Screener”, a web-based tool that assesses English and Mandarin language skills in bilingual children with minimal supervision from parents.

Scenario 1 - Tutorial Pages

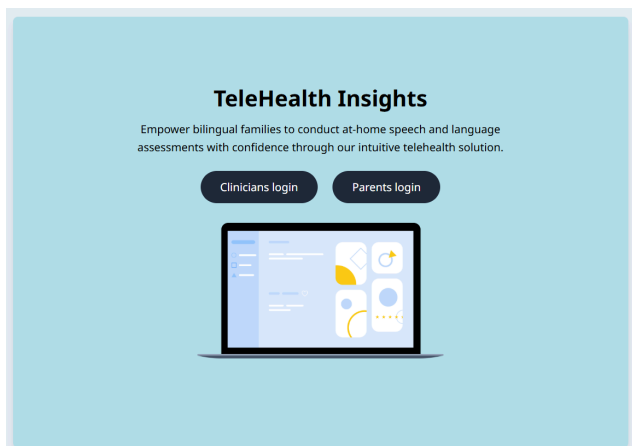
Parents should be leading this section - or guiding the child so that they understand the instructions

Provide Parents with the following login in:

Username: [REDACTED]

Password: [REDACTED]

1. They will chose Parent Login on the homepage and login with the above credentials



2. Click Tutorial Page

Welcome, Pep Pep!

TeleHealth Insights

Welcome to our TeleHealth platform, designed to help parents actively support their child's speech therapy journey. Our easy-to-use tools provide engaging assessments allowing you to work alongside speech-language professionals from the comfort of your own home.

Start

Not sure how to use the platform? We've got you covered! To guide you through all the features and help you make the most of your experience.

Tutorial →

3. Go through the Tutorial Process (A few pages with instructions, click Next)
4. Go through **MATCHING Tutorial & Repetition** for the usability test. Have them do Matching First. The click “**Try Another Tutorial**” and complete Repetition

TeleHealth Insights

Would you like to take a tutorial before starting the test?

Select a test type below to begin the corresponding tutorial.

Matching Tutorial

Repetition Tutorial

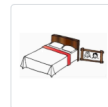
Quantifier Tutorial

Skip →

Tutorial - Matching

Great Job!

You have completed the tutorial. Click Finish to continue.



Finish →

Try Another Tutorial →

5. Click Finish when done both

Scenario 1 is complete!

Scenario 2 - Matching Assessment

Child should be leading this scenario and participating in the assessment

1. Click Start Assessment to commence scenario 2

TeleHealth Insights

You're All Set!



Start Assessment

[Homepage →](#)

2. Test Selection - English for Language and Test Type Matching
3. Set up Camera/Audio
4. Complete Assessment - there will 5 questions and 1 practice question

*Something to note - Submitting Answers does take a bit, depending on how long the assessment took.
Might have to wait.

This is the end of scenario 2

Scenario 3 - Repetition Assessment

Child should be leading this scenario and participating in the assessment

1. Click Yes, Let's Go on the **Assessment Complete Page** to commence scenario 3

Assessment Complete!



Thank you for completing the assessment!

Your results have been saved and your clinician will review them soon.

You did a fantastic job!

Would you like to do another assessment?

Yes, Let's Go!

No, I'm Done

2. Test Selection - Test Language: English and Test Type: Repetition
5. Set up Camera/Audio
6. Complete Assessment - there will 5 questions and 1 practice question
7. Have the parent click No, I'm Done.
8. Have the parent click Logout - They should be brought back to main landing page!

This is the end of scenario 3

As a reminder, **Please have the parents/children complete the following form for 5mins upon completing all 3 scenarios:** <https://forms.gle/izmWUf38F55xvUav8>

Usability Testing Survey Questions

Please select the statement that best describes your experience for each of the following (Likert Scale: Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree):

1. Learning how to use the system was easy
2. Setting up the system was easy
3. I found the assessment/(marking) interface easy to use
4. Navigating the interface was easy
5. All the button interactions reacted and responded how I thought they should
6. The information on screen was easy to read and understand
7. I like the organization of the assessment/(results) interface
8. I enjoyed my overall experience using the TeleHealth Insights platform

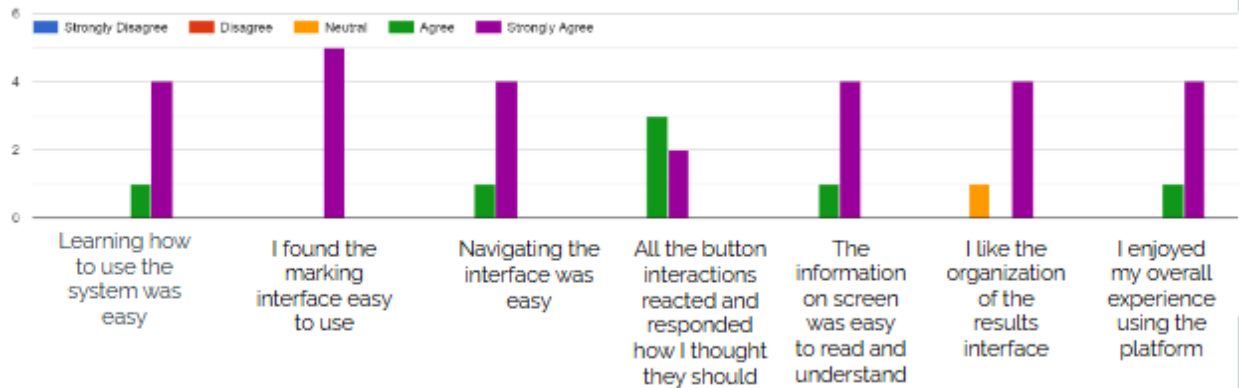
Answer the following open-ended questions:

9. What was the most difficult part of using the platform?
10. Did you encounter any bugs/problems while using the platform? If so, what were they?
11. What was your favourite part of the experience? Why?
12. What was your least favourite part of the experience? Why?
13. Were there any aspects of the platform that you found unnecessary? Why?
14. Which part of the platform needs the most improvement? Why?
15. What would you like changed to make the platform easier to use?
16. What is the device you ran the system on?
17. Did the screen's visuals scale appropriately to the screen size?
18. Do you have any additional feedback?

Clinician Results

We had 5 clinicians review our application after our first round of usability changes following Revision 0.

Please select the statement that best describes your experience for each of the following:



The clinician feedback was overwhelmingly positive, with most participants selecting "Agree" or "Strongly Agree" on the Likert scale questions. Clinicians found the system intuitive to navigate, appreciated the responsiveness of the buttons, and felt that the organization of the results interface was logical and easy to follow.

Most Difficult Part of Experience - Feedback Summary

What was the most difficult part of using the platform?

5 responses

It was all straight forward and pretty self-explanatory. My concern in the past had been when parents attempt to log in and set up an account, etc., they may not understand what to do, but the current system seems to have that narrowed down to steps to provide the parent, making creating an account and logging in easier.

I didn't find any part of the interface to be difficult to navigate or use.

Slightly hard to identify when selecting checkmark, or X icon.

Maybe need a intro video prior to log in

Just finding what I needed to click but it was by no means difficult and only took a few seconds each time.

Clinicians reported very few difficulties while using the platform. One respondent noted that the system was “straightforward and self-explanatory,” and even highlighted improvements compared to past concerns about parent login and account setup; indicating that the current version simplifies the process.

Minor feedback included:

- Difficulty distinguishing between the checkmark and “X” icons during selection.
- A suggestion to include an introductory video before login to provide context or onboarding.
- Brief moments of uncertainty around clickable areas, though users clarified this was not a significant barrier and was quickly resolved.

Encountering of Bugs - Feedback Summary

Did you encounter any bugs/problems while using the platform? If so, what were they?

4 responses

I didn't encounter any difficulties. Everything seemed to work well.

N/A

When hovering over results, it would outline a result halfway through each test.

No

Clinicians did not encounter any major bugs. One observation was that the graph results only updated after hovering over specific points, which appeared to be a design preference rather than a functional issue.

Most Favourite Part of the Experience - Feedback Summary

What was your favourite part of the experience? Why?

5 responses

I like the idea of having a video snippet available showing the client when responding to the matching and the repetition sections. I also think it is great that the clinician can score the response for the repetition, clicking on the checkmark, etc.

The graphs and the test result page was very easy to read and understand.

It is easy to use the website, and the UI is very appealing to the eye.

If I was logged in or not

I like reviewing the graph of the tests taken over time for a given client- it was nice to see trends in grades with respect to specific tests

Several clinicians highlighted the marking interface outloud, particularly the repetition grading workflow as one of their favorite aspects, and its ease of use. The visual graph used to display progress over time also received positive feedback for being informative and interactive. They thought the UI was very appealing to the eye and gained valuable information and insights based on the graph results.

Least Favourite Part of the Experience - Feedback Summary

What was your least favourite part of the experience? Why?

4 responses

I don't have a "least favorite" part. I'm thrilled with the capability the platform will have!

I don't have any part that i would consider my least favorite part. I found all sections to be equally enjoyable.

Observing the results, when my mouse hovered over, there was constantly a box on my screen.

Listening to the example audios that the clients will hear- the existing ones are sometimes not very clear and difficult to understand

When asked about their least favourite part of the experience, the majority of clinicians indicated they had no negative aspects to report. Two respondents explicitly stated they found all parts of the platform enjoyable and were enthusiastic about its future capabilities.

Of the remaining responses, one clinician noted that while reviewing results, a persistent box appeared on the screen when hovering over the graph. Upon investigation, this behavior was determined to be related to the specific user's device or browser rendering, and not an issue with the platform's functionality itself.

Another clinician commented on the clarity of the example audio clips used in the repetition test, mentioning that they were sometimes difficult to understand. This feedback is important; however, it's worth noting that the current audio recordings were provided by our research collaborators. We do not have control over their quality at this stage, but we expect this to improve in future versions once updated audio files are shared with us for upload and integration.

Unnecessary Features - Feedback Summary

Were there any aspects of the platform that you found unnecessary? Why?

5 responses

No. Everything seemed appropriate and useful for clinical review.

I didn't find any part to be unnecessary.

Some of the images, I did not find they added to anything, or there can be more effective pictures to use.

The font size of clients names

No, I found that everything included played a role in the seamless process of reviewing scores

The majority of clinician responses indicated that all components of the platform were considered necessary and contributed to the clinical review process. Most users explicitly stated that they found everything included to be useful and appropriate for navigating and interpreting assessment results.

However, two areas of improvement were noted. One user mentioned that some of the images used in the platform did not seem to add value, suggesting that either more relevant or higher-quality visuals could enhance the user experience. Another respondent pointed out that the font size of the client names could be improved for better readability.

Areas for Improvement - Feedback Summary

Which part of the platform needs the most improvement? Why?

5 responses

The volume of the matching item presentation was too soft, difficult to hear, especially compared to the sentence repetition section.

If i had to choose maybe the page to page navigation, using the home button sometimes is inconvenient when you don't want to head back to the home page.

The results section, it is probably the most vital info to understanding a patient's score.

Maybe an intro or a mission statement

I think new example audios would be my only big criticism of how the system works.

Clinicians identified a few key areas where the platform could be improved. Navigation was an area flagged for improvement. One user mentioned that the **home button** can be inconvenient when users wish to return to a specific section without going all the way back to the homepage. This insight suggests the need for more flexible or contextual navigation options.

Another clinician recommended enhancing the **results section**, noting that it's vital for understanding a patient's performance and should be as clear and informative as possible. Additionally, one participant suggested the inclusion of a **brief mission statement or introductory section**, likely to provide better onboarding or clarity for new users.

These feedback were taken into account for our next revision phase.

Suggestions for Improving Usability - Feedback Summary

What would you like changed to make the platform easier to use?

5 responses

I can't think of anything to change or add.

Maybe added " " when bias detect is on to help user see the detected words.

Adding a bias note so that the clinician is able to add their own bias that they discover.

Colorblind colors, disability friendly font

Some reminder instructions would be nice like "Please give this client ID to parents for their login"

When asked what could be changed to make the platform easier to use, responses varied across accessibility, feature clarity, and interface enhancements.

One clinician suggested adding **visual indicators (e.g., quotation marks)** to clearly show which words were flagged by the bias detection system. This would help users better interpret audio transcriptions and flagged content.

Another clinician proposed the ability to **add custom bias notes**, allowing clinicians to annotate or manually flag biases that the automated system may not catch.

Accessibility considerations were also brought up, with one user recommending the inclusion of **colorblind-friendly colors and disability-friendly fonts** to ensure better usability for a wider range of users.

Finally, a suggestion was made to include **reminder prompts** for features that are not clear, for example, prompts like "Please give this client ID to parents for their login"

This feedback was highly valuable and directly informed the changes made in our next revision.

Device Compatibility and Visual Scaling - Feedback Summary

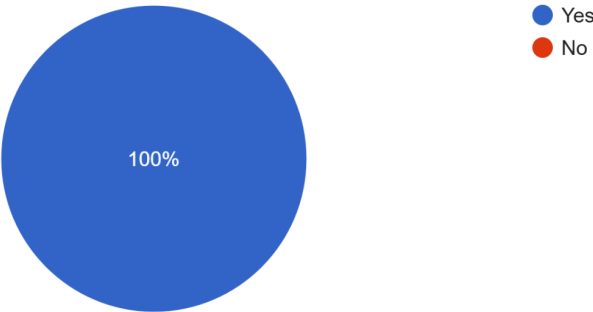
What is the device you ran the system on?

5 responses

I used my laptop.
Windows Computer
My Windows PC.
MacBook Air 2015
Windows 11 Laptop

Did the screen's visuals scale appropriately to the screen size?

5 responses



All participants conducted usability testing on laptops, including a range of systems such as Windows PCs, a MacBook Air 2015, and a Windows 11 device. Despite the variation in operating systems and hardware, all users unanimously reported that the platform's visuals **scaled appropriately to their screen size**.

This 100% positive response confirms that the interface is fully responsive across common desktop environments and maintains consistent usability across platforms.

Additional Feedback

Do you have any additional feedback?

3 responses

I'm excited for clinicians to have access to the application and the information it provides! The visual presentation was both appealing and easy to read/understand. The graph will be extremely helpful when viewing results. Very well done!

No I do not have additional feedback.

No

Clinicians provided limited but encouraging additional feedback. One respondent expressed strong enthusiasm for the platform, noting that the visual presentation was appealing, easy to read, and that the graph feature would be highly valuable for interpreting results. The feedback concluded with praise for the clarity and usefulness of the platform in a clinical setting.

Summary of Results

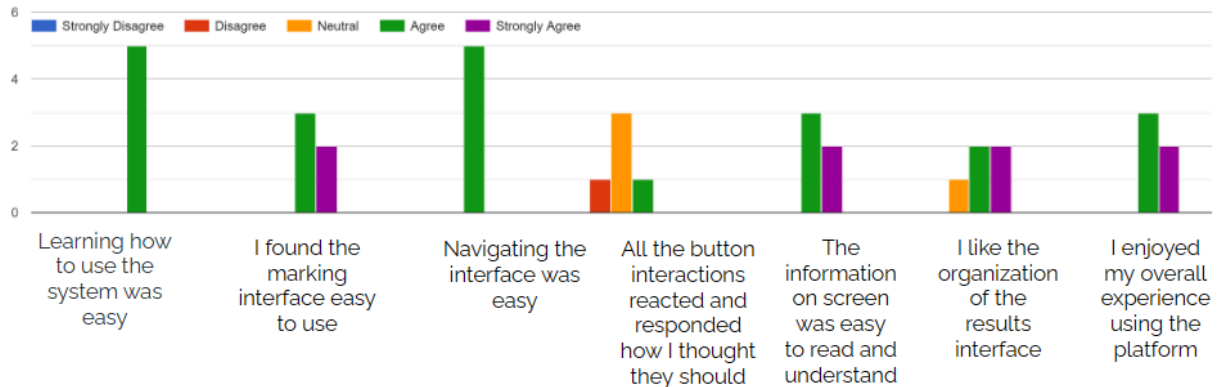
Clinicians participated in a structured usability test covering client management, bias detection, repetition grading, and results visualization. Overall feedback was highly positive, with key takeaways outlined below:

- **Ease of Use:** Clinicians found the platform intuitive and easy to navigate. All agreed that learning and setting up the system was straightforward.
- **Functionality Strengths:** The repetition grading workflow and results visualization were highlighted as particularly helpful. Clinicians appreciated the ability to view individual test recordings, assign bias, and interpret performance via the progress graph.
- **Audio & Visual Feedback:** One clinician noted the matching test audio was quieter than the repetition test audio. Another noted that while hovering over the results graph, a persistent pop-up appeared, though this was later attributed to their device, not the platform itself.
- **Suggested Improvements:**
 - Clarify flagged bias terms using visual cues (e.g., quotation marks).
 - Allow clinicians to manually enter bias notes.
 - Improve clarity on client onboarding instructions (e.g., adding reminder prompts for sharing client IDs).
 - Consider accessibility enhancements such as larger fonts and colorblind-friendly design.
- **Interface Compatibility:** All clinicians used the system on laptops (both Windows and macOS), and 100% confirmed that the platform scaled correctly to their screen size.
- **Overall:** Clinicians expressed enthusiasm for the platform's clinical potential, and we received very positive reviews. One participant praised the visual presentation and graph clarity, stating it would be “extremely helpful when viewing results.”

Parents/Child Results

We had 5 pairs of children and parents review our application after our first round of usability changes following Revision 0.

Please select the statement that best describes your experience for each of the following:



The parents and children feedback was mostly positive, with most participants selecting "Agree" or "Strongly Agree" on the Likert scale questions. Parents found learning how to use the system was easy, found the marking interface easy to use, found navigating the interface easy, found the information on screen easy to read and understand, and enjoyed their overall experience using the platform.

The parents thought that the button interactions did not respond how they expected them to. As well, there was more contention with the organization of the results interface.

Most Difficult Part of Experience - Feedback Summary

What was the most difficult part of using the platform?

5 responses

Nothing was difficult in using the platform.

Not skipping/carefully reviewing the instructions as it could become repetitive

Figuring out how to perform the matching test with the tutorial

The tutorial had an image that I thought was real and I tried clicking it and it didn't work and I got confused

Some instructions were unclear or lead to reading-fatigue.

Parents reported minor difficulties with understanding instructions, and having too many repetitive instructions on screen. One parent noted that the matching tutorial was not as helpful for understanding the matching assessment. As well, the tutorial walkthrough contained screenshots of the website itself, which one parent mistook for a real page.

Encountering of Bugs - Feedback Summary

Did you encounter any bugs/problems while using the platform? If so, what were they?

5 responses

I encountered long load times in between pages.

No

After submitting there was no indication where I was at in the submission process while it was being conducted besides the submission loading. When trying to listen to the audios some were very quiet.

In the English repetition assessment, the 1st and 4th sentence were the same by accident

No bugs

Parents experienced a few bugs, such as long loading times when submitting assessments, and reporting the lack of visual feedback upon submitting an assessment. As well, audio files were quiet for repetition assessments, and one parent found a duplicate question in their assessment.

Most Favourite Part of the Experience - Feedback Summary

What was your favourite part of the experience? Why?

5 responses

The matching assessment, cause it worked very smoothly and was easy to understand.

The additional tutorial to learn about the website before jumping into a test, that way I knew the testing would be set up correctly

Performing the matching tests was easy to use and enjoyable for its simplicity.

I liked the images and graphics they were visually appealing

Matching photos with the audio was very fun

Several parents and children noted the matching assessments were engaging and enjoyable. As well, one parent appreciated the additional tutorial to learn how to use the system prior to completing an assessment.

Least Favourite Part of the Experience - Feedback Summary

What was your least favourite part of the experience? Why?

5 responses

Only have one relisten cause I didn't fully hear sometimes on the first listen.

Having the additional Google pop up asking for permission to use the camera and microphone on the web page, it would be nice to give consent only once through the website

Not knowing that the tutorial was below the start button as the screen size was zoomed in.

The submission screen took a bit long to load after I finished the assessment

Reading all the instructions - there was too much to learn from the get go.

One parent noted their least favourite part of the experience was only having 1 relisten. However, this is a constraint of the assessment the team must adhere to for consistency in the research study, as requested by the team's external collaborator.

Additionally, one parent didn't like how their browser requested permission to use the camera and microphone. Unfortunately, this is also a security feature of the web browser, and a safety precaution, so the team must also adhere to this constraint.

Another parent noted the tutorial button was too far down on the homepage, which made it easy to miss on a zoomed in home screen.

Again, the assessment submission took too long to process and load, which was an inconvenience for parents and children.

One parent noted that there were too many instructions to remember and read, which made the experience worse.

Unnecessary Features - Feedback Summary

Were there any aspects of the platform that you found unnecessary? Why?

5 responses

I didn't find any of the aspects unnecessary.

No

N/A

I thought that the tutorial was almost the same as the instructions shown before the real assessment was done, so perhaps it does not need to be included or more detailed information can be given that is not shown in the real assessment

nope

Majority of parents found there were no aspects of the platform they found unnecessary. However, one parent noted the similarities between the tutorial and the instructions were too close, making it less helpful than intended.

Areas for Improvement - Feedback Summary

Which part of the platform needs the most improvement? Why?

5 responses

No improvement on the platform needed just long load times lead to slower experience.

Little bit of a weird zoom on some screens, but not distracting just not consistent

Making sure the UI is updated and consistent in formatting.

The tutorial because of the reasons I wrote above

UI - some actions/next steps were unclear. sometimes i didn't know what i was supposed to do to progress.

Many parents noted there were user interface issues that could be greatly improved. One parent noted zooming inconsistencies, while another noted inconsistencies with updates and formatting. Further, one parent noted that next steps and actions were unclear at times, with no clear indication of how to progress.

Another parent noted the platform had long loading times, which led to slower performance.

Suggestions for Improving Usability - Feedback Summary

What would you like changed to make the platform easier to use?

5 responses

Nothing.

Could possibly have the web page use other languages for instructions so the parent can set up the testing in their preferred language

A nav menu might help to store links such as logout, tutorial, etc, maybe with "Menu" text beside it.

The reasons I wrote above

more interactive elements please :)

When asked what could be changed to make the platform easier to use, responses varied across accessibility, interactivity, and interface enhancements.

One parent suggested the option to have the webpage display instructions in additional languages. This could be further explored, given more time and resources.

One parent indicated the hope for a navigation menu to better access links to help navigate the platform better. The team took this feedback and explored modifications to the overall site header to include quick access options to improve better overall platform usability.

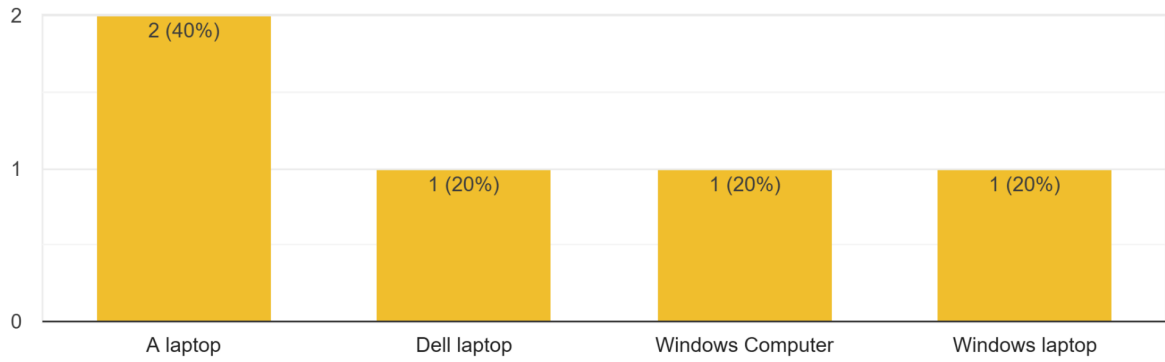
Another parent requested more interactive elements. Some of the items the team focused on when developing the next revision to enhance usability, was ensuring all buttons contained visual feedback, and behaved as expected (hovering feedback, clicking feedback).

This feedback was highly valuable and directly informed the changes made in our next revision.

Device Compatibility and Visual Scaling - Feedback Summary

What is the device you ran the system on?

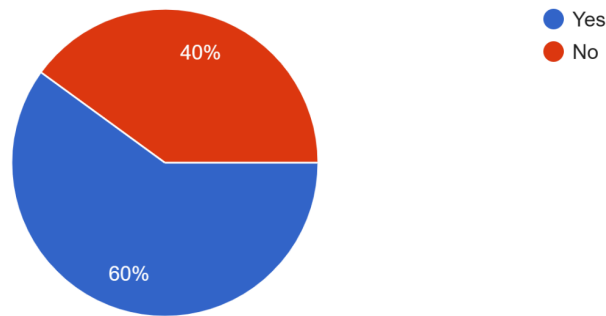
5 responses



All users used laptops or computers.

Did the screen's visuals scale appropriately to the screen size?

5 responses



60% of users reported appropriate visual scaling, while 40% reported the visuals did not scale appropriately. This division heavily influenced the team's development for the next revision, as it was clear the parent's interface required more attention to details, to ensure all users could have an enjoyable experience.

Additional Feedback

Do you have any additional feedback?

2 responses

Having a full screen mode so notifications and other icons on the laptop isn't distracting

N/A

Most parents opted not to give additional feedback. One parent requested a full screen mode to reduce distractions while using the platform. However, accessing a website in full screen would be done through the parent's own device, not through the site.

Summary of Results

Parents and children participated in a structured usability test, covering a variety of scenarios, including matching assessments, repetition assessments, and accessing tutorials. In addition, they evaluated navigation, assessment interactions, and overall user experience. Feedback was generally positive, with key takeaways outlined below:

- **Ease of Use:** Parents found the platform intuitive and easy to navigate. Most agreed that learning how to use the system, reading on-screen information, and completing assessments were straightforward.
- **Functionality Strengths:** The matching assessments were highlighted as particularly engaging for both parents and children. Some parents also appreciated the additional tutorial, which helped familiarize them with the platform before completing an assessment.
- **Audio & Visual Feedback:** Parents reported that the assessment submission lacked visual confirmation, making it unclear if their responses were successfully saved.
- **Suggested Improvements**
 - Ensure button interactions align with user expectations.
 - Improve organization of the results interface for clarity.
 - Refine the tutorial to avoid confusion and focus on the core aspects of each assessment type.
 - Address long loading times for assessment submissions.
- **Interface Compatibility:** All parents used laptops or computers. While 60% reported appropriate visual scaling, 40% noted inconsistencies, leading to UI refinements in the next revision.
- **Overall:** Parents and children generally enjoyed their experience with the platform. Their feedback was valuable in making usability improvements, including changes to navigation, and creating more accessible instructions.