

TASK 1: Find a measure (fatigue in adults)

PARTICIPANTS

2 irregularities:

-1 was not recorded; system failure

-1 began the task on the “Search for Measures” page

13 reported below

USER PATHS

Ten of thirteen participants started their searches in the “Measurement Systems” dropdown menu in the top nav. Seven of these participants stopped within the PROMIS measures subpages with four of those stopped at the “PROMIS Measures” table. One stopped in the ASCQ-Me subpages. Only two of these ten participants eventually found a measure.

One participant began in the “Learn More” dropdown menu of the top nav. Two participants began with the “Find a Measure” button at the bottom of the page in the “Use in Research” section. These three participants successfully found a measure.

SUCCESS

Five of thirteen participants found a measure. They used the “Search for Measures” tool from either the “Learn More” section (1 participant), links at the bottom of the main page (2 participants), or the “Search for Measures” button in the main nav (2 participants).

Eight of the ten participants starting in “Measurement Systems” were NOT successful and did NOT find a link for a measure for fatigue in adults that they could open.

Two of these ten participants eventually found a measure using the “Search for Measures” tool from the top nav.

TASK 2: Find information about the measure (perceived stress in adults)

PARTICIPANTS

- 1 irregularity:
 - 1 was not recorded; system failure
- 14 reported below

USER PATHS

One participant found the measure on the first try using the “Search” dropdown option “Search for Measures.” The other thirteen participants began this task searching in the “Measurement Systems” dropdown menu. These thirteen participants were unable to find information about perceived stress in adults on the first try, but ten of them found the information given enough time. Two participants abandoned the task. One participant navigated to external links and did not find a measure.

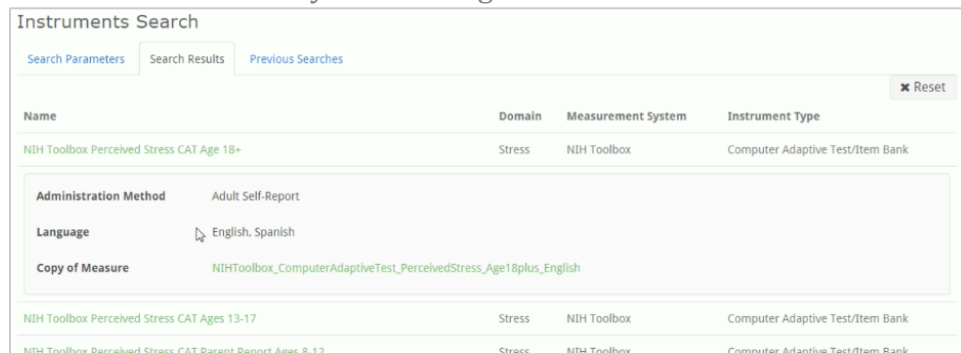
SUCCESS

Eleven participants found the measure and were able to download it in English.

Six of these participants either specified English in their instrument search selections or commented on their language choice as they spoke aloud during their testing sessions.

The other five did not specify English or make any reference to language selection. The only link provided for the measures they selected was the English version (Image 1). Data is inconclusive to say whether or not these five participants consciously considered language choice in their decision-making processes.

IMAGE 1: Search Results Only Lead to English Measure



The screenshot shows a web interface for searching instruments. At the top, there are tabs for 'Search Parameters', 'Search Results', and 'Previous Searches'. A 'Reset' button is located on the right. Below the tabs is a table with columns: Name, Domain, Measurement System, and Instrument Type. The first row is highlighted and shows 'NIH Toolbox Perceived Stress CAT Age 18+' under Name, 'Stress' under Domain, 'NIH Toolbox' under Measurement System, and 'Computer Adaptive Test/Item Bank' under Instrument Type. Below this row is a detailed view of the selected instrument, showing 'Administration Method' as 'Adult Self-Report', 'Language' as 'English, Spanish', and 'Copy of Measure' as 'NIHToolbox_ComputerAdaptiveTest_PerceivedStress_Age18plus_English'. Below this detailed view are two more rows in the table: 'NIH Toolbox Perceived Stress CAT Ages 13-17' and 'NIH Toolbox Perceived Stress CAT Parent Report Ages 8-17', both with the same Domain, Measurement System, and Instrument Type as the first row.

Name	Domain	Measurement System	Instrument Type
NIH Toolbox Perceived Stress CAT Age 18+	Stress	NIH Toolbox	Computer Adaptive Test/Item Bank
Administration Method Adult Self-Report Language English, Spanish Copy of Measure NIHToolbox_ComputerAdaptiveTest_PerceivedStress_Age18plus_English			
NIH Toolbox Perceived Stress CAT Ages 13-17	Stress	NIH Toolbox	Computer Adaptive Test/Item Bank
NIH Toolbox Perceived Stress CAT Parent Report Ages 8-17	Stress	NIH Toolbox	Computer Adaptive Test/Item Bank

One of these five participants navigated out of the HealthMeasures “Search for Measures” instrument to the NIH Toolbox website (Image 2). She found and downloaded a copy of the measure in English (Image 3). She was one of the five who did not mention or specify language preference during the search.

IMAGE 2: Participant Abandons Instruments Search During Selections

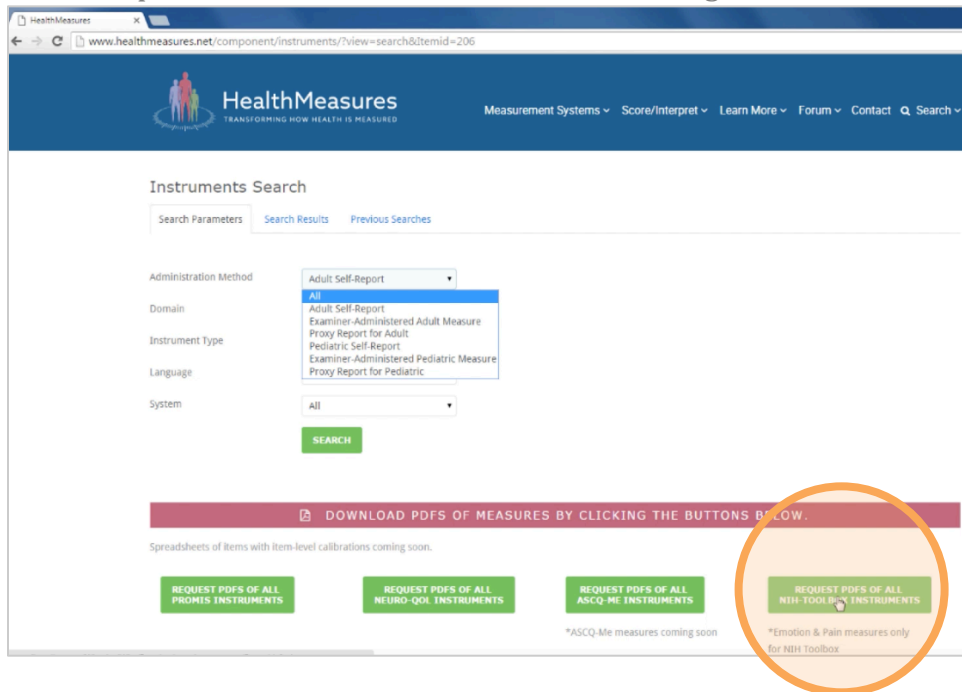
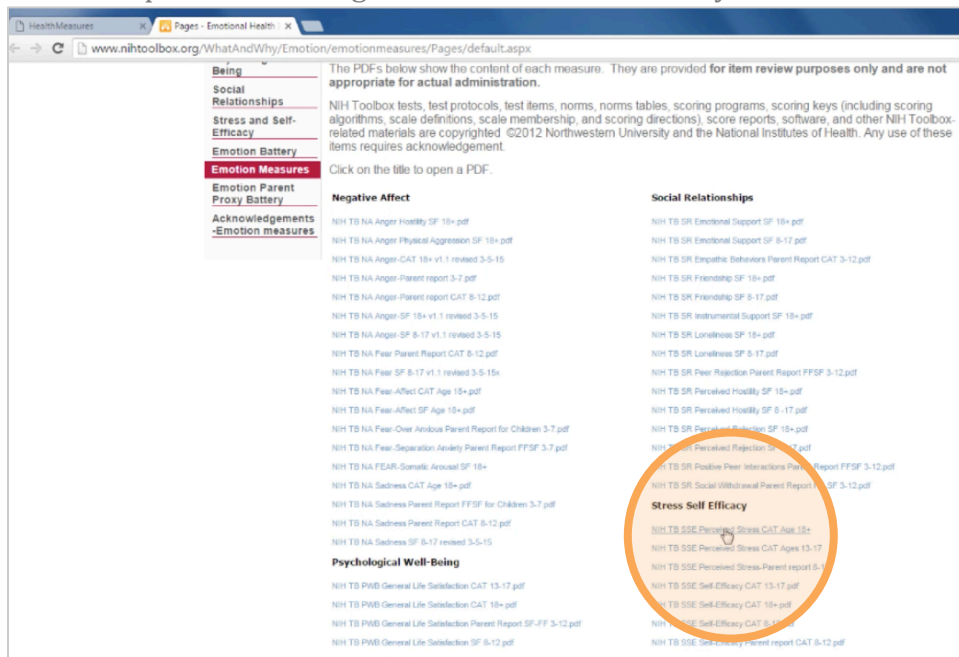


IMAGE 3: Participant Selects English Version on NIH Site by Default



Three participants did not find a measure during Task 2. One of these three participants had successfully found a measure in Task 1 using the “Search for Measures” button on the bottom of the home page.

Five Participants Over Two Tasks

Five participants found a measure in Task 1. Of those same five participants, only one began the task using the “Search for Measures” tool (Table 1).

Task 1	Task 2
None used the “Search” dropdown tool	One used the “Search” dropdown tool
Two used a “Search for Measures” link on the bottom of the main page	None used the “Search for Measures” links at the bottom of the main page
Three started Task 1 exploring the main nav; these three found the “Search for Measures” page through the PROMIS pages, the “Learn More” dropdown, and the “Search” dropdown	Four started Task 2 browsing the main nav—specifically the “Measurement Systems” dropdown; of these four, three found and used the “Search for Measures” page while one navigated outside of HealthMeasures through external links.

TABLE 1: Five Participants Over Two Tasks

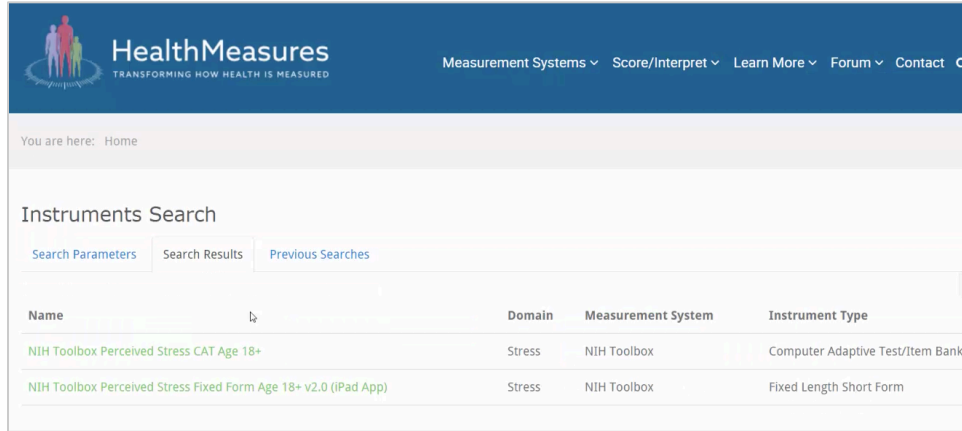
A Single User Journey: Tasks 1 and 2

Participant 5 accidentally began Task 1 on the “Search for Measures” page. She found multiple measures during that task, but her data was not included in those task results because of the irregularity (e.g., the other participants all started from the home page).

During Task 2, she started at the main nav and went to the NIH—Emotion page. She used Ctrl+F to search for keywords. She browsed many pages within the “Measurement Systems” dropdown menu and said, “I really don’t know where I would find this.”

She found the “Search for Measures” button in the left nav. When she saw the page, she said, “No. We already did this before.” She selected search parameters. This yielded two results (Image 4).

IMAGE 4: P5 Search Results



She opened the second link drawer first—the “Fixed Form” result (Image 5). She commented on the manual and video. However, seeing no link to a measure, she said, “I don’t think you can actually get it.”

Next, she opened the first link drawer (Image 5) and noticed the link to the measure. She said, “Is this the one you wanted me to find? ... I really have no idea.”

IMAGE 5: Two Open Link Drawers With Measure, Manual and Video Links

Name	Domain	Measurement System	Instrument Type								
NIH Toolbox Perceived Stress CAT Age 18+	Stress	NIH Toolbox	Computer Adaptive Test/Item Bank								
<table border="1"> <tr> <td>Administration Method</td> <td>Adult Self-Report</td> </tr> <tr> <td>Language</td> <td>English, Spanish</td> </tr> <tr> <td>Copy of Measure</td> <td>NIHToolbox_ComputerAdaptiveTest_PerceivedStress_Age18plus_English</td> </tr> </table>				Administration Method	Adult Self-Report	Language	English, Spanish	Copy of Measure	NIHToolbox_ComputerAdaptiveTest_PerceivedStress_Age18plus_English		
Administration Method	Adult Self-Report										
Language	English, Spanish										
Copy of Measure	NIHToolbox_ComputerAdaptiveTest_PerceivedStress_Age18plus_English										
NIH Toolbox Perceived Stress Fixed Form Age 18+ v2.0 (iPad App)	Stress	NIH Toolbox	Fixed Length Short Form								
<table border="1"> <tr> <td>Administration Method</td> <td>Adult Self-Report</td> </tr> <tr> <td>Language</td> <td>English, Spanish</td> </tr> <tr> <td>User Manuals</td> <td>NIHToolboxApp_AdministratorsManual_v1.1_English</td> </tr> <tr> <td>Link</td> <td>Watch Video</td> </tr> </table>				Administration Method	Adult Self-Report	Language	English, Spanish	User Manuals	NIHToolboxApp_AdministratorsManual_v1.1_English	Link	Watch Video
Administration Method	Adult Self-Report										
Language	English, Spanish										
User Manuals	NIHToolboxApp_AdministratorsManual_v1.1_English										
Link	Watch Video										

She found multiple measures during Task 1 because she had accidentally started on the “Search for Measures” tool page. But she could not find her way back to the tool in Task 2. She took circuitous routes through Task 2—including looking at demo videos—and almost talked herself out of completing the task three times.

The Problem:

This user journey through Tasks 1 & 2 demonstrates that the “Search for Measures” tool is effective but difficult for the participants to locate and remember how to find.

Explanation:

Active links to “Search for Measures” appear on the main page four times. However, users cannot see any of these instances at first glance. They are either “below the fold” or buried in a hierarchical menu. When asked how Task 1 went, Participant 9 said, “I’m not sure; it [the measure] should have been easier to find.” For Task 2, Participant 7 offered, “I’m not sure where to find it...I decided to go here through trial and error.” Participant 14 said, “I can’t find how to do that. The instruments search tool is difficult for users to locate when they start to use the system.

Recommendation:

Increasing the visibility of the “Search for Measures” button will help to increase the effectiveness of the website.

TASK 3: Understanding the Score (scoring the measure)

PARTICIPANTS

2 irregularities

-1 was not recorded; system failure

-1 began the task on the “Instruments Search” page

13 reported below

USER PATHS

All participants started this task looking in the main nav under the “Score/Interpret” dropdown menu. Four of the thirteen participants returned to the top level of the “Score/Interpret” dropdown at least twice and at most four times as they tried to complete the task. The other nine participants worked within links on the subpages to find what they needed.

SUCCESS

Eleven of thirteen participants ended the task on either the NIH Toolbox page under “Interpreting Scores” within the “Score/Interpret” dropdown menu or on the NIH Toolbox Scoring and Interpretation Guide .pdf. Seven of these participants were satisfied that the NIH Toolbox page had the information they would need to score the Perceived Stress measure. The other four went beyond that page to find the .pdf scoring guide. One of these four located page 39, “Stress and Self-Efficacy,” within the guide before she ended the task.

One participant located the NIH Toolbox Technical Manual.

One participant stopped the task at the “Meaning of Scores” page within the “Score/Interpret” dropdown menu. He was unsuccessful because the contents are about scoring methods and not about interpreting or understanding a scored measure.

TASK 4: Other Clinical Researchers (others' use of measures)

PARTICIPANTS

2 irregularities

-1 was not recorded; system failure

-1 began the task on the "Instruments Search" page

13 reported below

USER PATHS

Eight of thirteen participants began the task exploring the "Learn More" dropdown menu in the top nav. Four of these eight participants pursued the path for applications of HealthMeasures in clinical research. Three of the eight participants chose to follow applications in clinical practice. The last abandons "Learn More" to explore the links at the bottom of the homepage. She finds the Instruments Search and returns to "Learn More."

Three participants started at the bottom of the home page. One participant abandoned that set of links for the "Learn More" dropdown menu. The other two navigate to the "Applications of Health Measures" page. One ends the task here. The other uses the "Measurement Systems" dropdown to navigate to PROMIS publications.

One participant started by navigating to publications from the top nav.

One participant began with the "Forum" menu.

SUCCESS

Five participants accessed publications through either the "Measurement Systems" or "Learn More" dropdown menus. Two of these five accessed both menus but found publications through "Measurement Systems."

Two participants used the "Forum" tab to complete the task.

Six participants ended the task in one of the sections on the "Applications of HealthMeasures" page—two each in "Evaluating Quality of Care," "Clinical Practice," and "Clinical Research." These pages are about the settings in which to use the measures as opposed to how other clinicians have used the tools.