

Assessment Center FAQs

General Assessment Center

What is Assessment Center?

Assessment CenterSM is a free, online research management tool. It enables researchers to create study-specific websites for capturing participant data securely. Studies can include measures within the Assessment Center library as well as custom instruments created or entered by the researcher. PROMIS instruments (short forms, CATs, profiles) are a central feature of the instrument library within Assessment Center. Any PROMIS measure can be downloaded for administration on paper or be included in an online study. Detailed statistical information and development history about PROMIS items and instruments is available for review.

Assessment Center enables customization of item or instruments (e.g., format, randomization, skip patterns), real-time scoring of CATs, storage of protected health information in a separate, secure database, automated accrual reports, real-time data export, graphing of individual CAT or Profile scores, and ability to capture endorsement of online consent forms among many other features.

Why should I use Assessment Center?

Assessment Center is unique in online survey administration tools in its ability to administer computerized adaptive tests. It also enables easy access to PROMIS instruments including CATs, short forms, and profiles. It allows secure collection of protected health information as well.

Who is using Assessment Center?

Assessment Center is a publicly available application. Anyone with access to the internet who has registered is free to use Assessment Center.

How long will Assessment Center be around?

Support for Assessment Center is provided by a grant from the National Institutes of Health (NIH) which will expire in July 2013. Should the NIH and/or the PROMIS Health Organization not provide continuing support past that time, the Department of Medical Social Sciences at Northwestern University is committed to providing support on a cost recovery basis through at least 2018. Source code is available for qualified users.

What security measures are in place for online data capture?

Assessment Center takes security very seriously. The last long section of the Assessment Center User Manual (www.assessmentcenter.net) includes information about security including details about the system architecture, SSL encryption, and server security. Additionally, within a study Assessment Center utilizes role-based permissions. Only team members are able to get access to a given study. Their access is limited based on their assigned role. Only individuals with the appropriate role are able to edit or export participants' data. Individual items can be flagged to indicate if they include protected health information making de-identification of datasets easier. Finally, the registration fields are stored in a separate database from other survey data. This allows collection of protected health information to be stored separately from patient-reported outcome data.

Who has access and who owns data collected in Assessment Center?

Only study team members that have been given access by you can view or export study data. All data collected in Assessment Center is owned by you. The Assessment Center team and PROMIS network make no claims on your data.

What will you do with the email address I provide when I register in Assessment Center?

Your email address is used by the Assessment Center team to periodically provide you with updates about new measures, training opportunities, and scheduled maintenance time. We also may contact you about research opportunities. Your email is not sold or utilized for non-Assessment Center purposes.

How do I retrieve a lost password?

To retrieve a lost password go the Assessment Center website – www.assessmentcenter.net , enter your user ID, and click “Forgot Password” in the upper right corner. This will email you your password. If your email address has changed or you do not remember your user ID please contact help@assessmentcenter.net.

What are the minimum hardware/operating system/browser/software needs for conducting a study in Assessment Center?

	Supported	Recommended
Operating System	Windows XP or Higher	Windows Vista or Higher
Screen resolution	RA 1024 X 768 Participant 800 X 600	1024 X 768 or higher
Internet Browser	Internet Explorer 7 & 8	Internet Explorer 8
	Mozilla Firefox 4.0	Mozilla Firefox 4.0
Mobile Devices	Apple IPAD*	Apple IPAD*
Connection Speed	DSL/Broadband @ 750 Kbps/down and 128Kbps/up or higher	Broadband @ 3 Mbps/down and 384Kbps/up or higher
Misc. Software	N/A	Adobe Reader 9 Microsoft Excel 2003 or Higher

****IPAD is only supported for participant administration only.***

Can participants use a touchscreen to complete an assessment?

Assessment Center is compatible with touchscreen computers. The mouse adapts to your finger instead of the mouse hardware input device. However, touchscreen computers are not ideal for items that require a participant to type in text due to their lack of keyboard. Additionally, if the registration fields are being utilized, be sure to pilot test how those screens appear and function on a touchscreen as they utilize a different template (multiple items per screen).

Do I have to use a PROMIS instrument if I want to use Assessment Center?

No. You may use Assessment Center to create and administer your own instruments exclusively.

Do I have to use Assessment Center if I want to use a PROMIS instrument?

No. You are welcome to use a PROMIS measure in other administration platforms.

Can I combine PROMIS with other instruments?

Yes. Within Assessment Center, you can opt to include a PROMIS measure as well as another existing measure or draft your own items.

Can I review how an item looks for participants?

Templates indicate how an item will appear on the participant's screen. You can view pictures of these templates in the Assessment Center User Manual. You can also select a template for a given instrument and utilize the Preview hyperlink to see how it will look.

My colleague has registered in Assessment Center and I want to add them to my study team but I do not see them on the User List. Why?

Users must log into Assessment Center at least once to appear in the User List in the Study Team page.

My colleague is using Assessment Center. Where can I find his/her instruments?

If your colleague would like to share an instrument with you, ask to be added to his/her study team. Then, on the Add Instruments page, select your colleague's study name to view all instruments that were created in that study. You can add those instruments to your own study. If you would like to make your instrument available to any Assessment Center user, contact help@assessmentcenter.net.

I want to add an instrument I created in Assessment Center to another study I have created but I cannot find it when I do a search.

An instrument must have the status of Administered or Public in order to be added to another study. Status is automatically updated to Administered once a study is launched. Alternatively, an instrument status can manually be changed on the Instrument Properties page.

A participant just told me that s/he changed his/her mind and wants me to update his response. How do I do that?

Team members with the role of Data Entry Administrator can enter or change participant data. Type in the participant's login and click Find/Create Login. Navigate to the Participant Data page. Click on the appropriate instrument name on the left navigation pane. Complete data entry. Note that if you write over data, the original data will not be stored anywhere.

I have several studies in Assessment Center and I enrolled a participant into a wrong study. Can you transfer his/her responses for me?

No, we cannot transfer a participant's responses from one study to another study. We would suggest exporting the data from Study 1 and manually entering it in Study 2. Then, in Study 1, change the participant's status to Consent=Test. When it is time for data analysis, select only those participants whose consent status equals Yes.

Can I change items after I have launched my study?

To maintain consistency among items and instruments, you may not edit items after launching.

I launched my study but forgot the URL, can I retrieve it?

On the Launch page of your study there will be a hyperlink to your study URL. Additionally, you can view the URL on the Basic Set-up page.

I was previously able to see my accrual numbers on the Overview page within the Administration tab but now I cannot. Why?

At this time, the "accrual dashboard" is able to handle calculations for a finite amount of data. If you have a large study, the accrual dashboard may be overwhelmed. You can export your data using the export functions on the Administration tab. Contact help@assessmentcenter.net for assistance.

I did not collect participants' names and I don't know a user's login. How can I find his or her registration?

The Registration Data Export will include all participants with their logins. Without collecting name, it may be difficult to identify who is who in your study. All data is saved with the time and date it was created. That may help you identify a given participant.

PROMIS Instruments

Where can I find a PROMIS instrument?

In order to access PDF versions of PROMIS instruments, you will need to register and login to Assessment center. PDF versions of all PROMIS instruments are available under the Resources link in the upper right corner of Assessment Center. You can also use Assessment Center to administer PROMIS measures on a computer. Each PROMIS instrument you add to your study will have a PDF version of the instrument on the Study Content page under the Instruments tab.

What do the PROMIS instruments look like?

The CAT Demo at www.assessmentcenter.net/ac1/assessments/catdemo allows you to select from a number of PROMIS computerized adaptive tests, complete them, and view a report of your scores. This will give you a feel for the type of items included in PROMIS CATs. You can also register in Assessment Center and access the PDF versions of PROMIS instruments for review.

How do I score PROMIS instruments?

CATs are scored as they are administered by Assessment Center. A theta estimate is calculated after each response. Scoring Manuals for short forms are available at <https://www.assessmentcenter.net/Manuals.aspx>. Short forms and Profiles are scored by Assessment Center after the instrument has been completed. Scoring instructions for short forms are also available in the Resources link in the upper right corner of Assessment Center. A scoring program, PROMIScore, is also available for download at <http://www.nihpromis.org>. An Excel file of one or many participants' responses to PROMIS short forms can be uploaded and scored. It includes graphing functions and is able to handle missing data.

Have the PROMIS instruments been validated?

This question implies a simple “yes” or “no” answer. There are some questions that can be answered appropriately with a positive or negative response. Do you have disability insurance? Have you ever had surgery? Are you pregnant? . . . The validity of an outcomes instrument, however, is not at all like being pregnant. An instrument can never be said to be “valid” in any unqualified sense. One might expect that an expertly developed fourth grade math test would be valid for discriminating math proficiency levels among fourth graders. Validity, however, is not portable. A test that is valid in a particular population for a particular purpose may not be valid for use in other populations and for other purposes. The hypothetical math test described above would not be a valid test of math proficiency of high school students nor would it be a valid test of the writing skills of fourth graders. Validation is an ongoing and never completed exploration and documentation of how a measure functions. The strength of the validity evidence is judged in the courtroom of scientific opinion. In fact, the judicial system provides a serviceable metaphor. Validation is the process of building a case for a measure. Various psychometric studies are undertaken and their results serve as “character witnesses” that reveal the level and nature of a measure's usefulness in different populations and for different purposes. With this introduction and clarification, it would be valuable to rephrase the PROMIS validation question and ask “What evidence is there for the validity of the PROMIS instruments?”

To reiterate, the validation of an instrument is an ongoing process that is never completed. However, substantial qualitative and quantitative evidence has been gathered supports the validity of the PROMIS instruments. Below we describe some of this evidence. We believe that validity starts at the beginning. We share the view that “content validity is built into a test from the outset through the choice of appropriate items” [Anastasi A, 1988, *Psychological Testing*, New York, Macmillan Publishing Company, p. 122-127.] The content-related validity of PROMIS instruments began in our use of patient interviews and review by expert review panels. Details about these activities can be found in DeWalt, D., Rothrock, N., Yount, S., Stone, A. A., & on behalf of the PROMIS cooperative group. (2007). Evaluation of item candidates: the PROMIS qualitative item review. *Medical Care*, 45(5), S12-21. Additional information about the validity of PROMIS instruments can be found in a triplet of articles published in the *Journal of Clinical Epidemiology*:

1. Cella, D., Riley, W., Stone, A., Rothrock, N., Reeve, B., Yount, S., Amtmann, D., Bode, R., Buysse, D. J., Choi, S. W., Cook, K. F., DeVellis, R., DeWalt, D., Fries, J. F., Gershon, R., Hahn, E., Pilkonis, P., Revicki, D., Rose, M., Weinfurt, K., & Hays, R. D. on behalf of the PROMIS Cooperative Group. (2010). Initial item banks and first wave testing of the Patient-Reported Outcomes Measurement Information System (PROMIS) network: 2005-2008. *Journal of Clinical Epidemiology*, 63(11) 1179-94
2. Liu, H. H., Cella, D., Gershon, R., Shen, J., Morales, L. S., Riley, W., & Hays, R. D. (2010). Representativeness of the PROMIS Internet panel. *Journal of Clinical Epidemiology*, 63(11), 1169-78.
3. Rothrock, N. E., Hays, R. D., Spritzer, K., Yount, S. E., Riley, W., and Cella, D. (2010). Relative to the general US population, chronic diseases are associated with poorer health-related quality of life as measured by the Patient-Reported Outcomes Measurement Information System (PROMIS). *Journal of Clinical Epidemiology*, 63(11), 1195-1204.

Finally, the www.nihpromis.org website hosts a current list of PROMIS publications that can address an instrument's validity for a specific PROMIS instrument within a specific population for a specific use.

Who owns data from a PROMIS instrument?

The study team owns all data collected using PROMIS measures. The PROMIS network makes no claim to any data collected using PROMIS measures. There is a statement in the PROMIS Terms and Conditions that encourages researchers to provide a summary report to allow the PROMIS network to know about how the measures are being used in various study paradigms:

Users of PROMIS tools are strongly encouraged to submit a brief report including sample demographic information, clinical data sufficient to define the sample without indicating treatment response data, and promis score distributions (e.g., baseline mean and standard deviations or change scores blinded to treatment information). This brief report should be submitted to help@assessmentcenter.net for internal review. None of this submitted information will be published without the written consent and participation of the submitter.

What is the difference between short forms?

You will notice that there are several versions of many of the PROMIS short forms (e.g., the "original" 1.0 short form, as well as the 4a, 6a, and 8a versions). The original short forms were constructed by the domain teams. The goal was to identify 6-8 items that represented the range of the trait and also represented the content of the item bank. Domain experts reviewed short forms to give input on the relevance of each item. Each domain group worked independently and those original short forms are 6-10 items long. Psychometric properties and clinical input were both used and likely varied in importance across domains.

Later, we developed the PROMIS Profile instruments. This is a collection of short forms for 7 PROMIS domains. PROMIS constructed "high information" PROMIS short forms for seven domains (Anxiety, Depression, Sleep Disturbance, Fatigue, Pain Interference (Impact), Physical Function, and Satisfaction with Participation in Social Roles). For each domain, 4-item, 6-item and 8-items have been selected so that the items are nested/overlap (e.g., the 8-item form is the 6-item form plus two additional items). The selection of items was in part based on two sets of rankings of items within each domain using two psychometric criteria: (1) maximum interval information; and 2) CAT simulations. Item rankings were similar for both criteria. For the maximum interval criterion, each item information function was integrated (without weighting) for the interval from the mean to 2 SDS worse than the mean. For the CAT simulations, responses to all items in each bank were generated using a random sample of 1,000 simulees drawn separately for each bank (centered on 0.5 SD worse than the general population mean). Items were rank ordered based on their average administration rank over the simulees. Content experts reviewed the items and rankings and made cuts of 4, 6, and 8 items.

Is one short form better than the other?

In selecting a short form, the difference is instrument length. The reliability and precision of the short forms within a domain is highly similar. If you are working in a sample in which you expected huge

variability in a domain area and wanted different subdomains covered, you would probably go for the original short form. If you are working with a sample in which you wanted the most precise measure, you would go for an 8a short form. If you had little room for additional measures but really wanted to capture something as a secondary outcome, you would go for a 4a short form.

I am working with a pediatric sample with some participants who will be young adults (ages 18-24). Should I use the pediatric or adult instruments for young adults?

There isn't a perfect answer here yet. The pediatric items will likely work in this age range, but they haven't yet been tested. The pediatric items are targeted towards an 8-18 age range and some of the wording may feel a little "young". The adult items are appropriate for young adults, but then you are using two different measures in one sample. The PROMIS network is conducting multiple studies that will link the pediatric and adult scales so that in the future it won't matter which scale is used. Review the banks of interest to determine what is best for your study.

What is an adequate response rate in health-related quality of life research?

Setting an adequate response rate depends upon context. In a single (one time) assessment where you are talking about a percent of a defined sample (e.g., percent of patients from a clinician's practice), the percentage is less important than getting a representative sample and sufficient sample size. Minimum sample size for one group summary statistics (not per subgroup) is roughly 40, but preferably 50.

In longitudinal studies of relatively healthy people who remain alive through the follow-up period, 80% is adequate, though 90% is better. In longitudinal studies with sicker patients, 70% tends to be treated as adequate, but missing data is often not randomly missing which causes problems.

Does PROMIS have proxy measures?

PROMIS is developing proxy measures for the pediatric instruments. These are intended to be completed by a parent for a child ages 5-18. These measures will be made available in Assessment Center when finalized. PROMIS does not have proxy measures to be completed by a caregiver for an adult.

Are PROMIS instruments available in languages other than English? If so, how can I get them?

All PROMIS instruments are available in Spanish. Other translations and validation of translations is in process. Contact help@assessmentcenter.net for more information.

What are the licensing details for using PROMIS items?

For information on licensing please see the PROMIS Terms and Conditions in Assessment Center.

What is the minimum change on a PROMIS instrument that represents a clinically meaningful difference?

This is a complex question that as of Summer 2010 is a topic of activity for the PROMIS Statistical Center.

Have you held any meetings/discussions with regulatory bodies (FDA) and regulatory and scientific advisors?

As of Summer 2010, we have held 4 meetings with the FDA, the most recent with the PRO Consortium. There are ongoing discussions regarding the acceptability of PROMIS measures and a broader, shared regulatory science agenda. Laurie Burke, MPH, PRh, Director of Study Endpoint and Label Development at the Center for Drug Evaluation and Research at the FDA stated, "FDA joins NIH in the goal of ensuring that PROMIS results in meaningful measurement of the impact of medical product treatment." At the end of the day, the best way to get a read from the FDA on PROMIS is to include it with a submission for consideration.

PROMIS Network

I have a great research idea and am looking for a collaborator. How can I connect with the PROMIS effort?

Email help@assessmentcenter.net and we can help connect you with the right person in the PROMIS network.

Psychometric Issues

What is item response theory (IRT)?

In [psychometrics](#), item response theory (IRT) also known as latent trait theory, or modern test theory, is a paradigm for the design, analysis, and scoring of [tests](#), [questionnaires](#), and similar instruments [measuring](#) abilities, attitudes, or other variables. IRT is an array of mathematical models that describe how an examinee responds to an item probabilistically as a function of the trait level of the examinee and the characteristics of the item (e.g., difficulty and discriminating power). In IRT, the examinee's score is defined on the latent (unobservable) trait rather than on the test, as is the case in classical test theory. Therefore, the IRT trait score is considered independent of the particular set of items, whereas the true score in classical test theory is bound to the particular set of items.

What is a computerized adaptive test (CAT)?

Computerized adaptive testing (CAT) is a form of [computer-based testing](#) that adapts to the examinee's trait level. For this reason, it has also been called *tailored testing*. Questions are selected based on a respondent's previous answers. For example, if an examinee indicates having difficulty

climbing a flight a stairs, the next selected question will be appropriate for someone at that level of functioning. The next question may be about climbing up a single step or curb. If someone can climb a flight of stairs with ease, the next question may be about climbing several flights of stairs.

Can I add CAT parameters for Partial Credit model?

Right now, Assessment Center only supports a Graded Response Model. Future releases of Assessment Center will enable other IRT models.

What statistical information is required to administer a custom CAT?

To administer a custom CAT, items must have calibrations (slope, thresholds) on the Item Statistics page and the instrument must have CAT parameters (Customize hyperlink, CAT parameters page).

Additional User Support

I got an error message in Assessment Center. What should I do?

Some error messages will provide information on how to correct a problem. For example, if you enter an instrument name that already exists in the system, you will be asked to amend the name. Other times an error message appears more technical and does not give you a clear indication of what to do. In these rare cases, copy the error message, note where you are in the system (what screen, what you were trying to do) and the date/time you received the error. Then, contact help@assessmentcenter.net with this information and we will try and resolve the problem.

Where do I go to find information on PROMIS and Assessment Center training sessions?

Information about PROMIS and Assessment Center training workshops is posted at www.assessmentcenter.net.

Where can I find detailed instructions on how to use each Assessment Center feature?

You can find instructions in the Help feature (link in upper right corner of Assessment Center) and the Assessment Center User Manual (www.assessmentcenter.net).

I have read the Assessment Center User Manual but need more help. What should I do?

Consider attending an Assessment Center workshop. These workshops provide an introduction to PROMIS, item response theory, computerized adaptive testing, and a hands-on tutorial for using Assessment Center. Information about upcoming workshops is available at www.assessmentcenter.net. You can also email help@assessmentcenter.net.

Can you set up my study for me?

We hope that you will be able to set up your own study by using the available help resources. We are not able to set up a study for you. However, we are happy to answer questions at help@assessmentcenter.net.

Can you review my study before I finalize it?

We would love to review your study before it is finalized. Make Assessment Center Help a team member. Email help@assessmentcenter.net with your study name.