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Telepractice and the WAB-R

Western Aphasia Battery-Revised
(WAB-R)

[See pricing options](#)

The telepractice information in this document is intended to support professionals in making informed, well-reasoned decisions around remote assessment. This information is not intended to be comprehensive regarding all considerations for assessment via telepractice. It should not be interpreted as a requirement or recommendation to conduct assessment via telepractice.

Professionals should remain mindful to:

Follow their own professional best practice recommendations and respective ethical codes

Follow telepractice regulations and legal requirements from federal, state and local authorities, licensing boards, professional liability insurance providers, and payors

Develop competence with assessment via telepractice through activities such as practicing, studying, consulting with other professionals, and engaging in professional development.

Professionals should use their clinical judgment to determine if assessment via telepractice is appropriate for a particular examinee, referral question, and situation. There are circumstances where assessment via telepractice is not feasible and/or is contraindicated. Documentation of all considerations, procedures, and conclusions remains a professional responsibility.

The American Speech-Language-Hearing Association (ASHA) has provided guidance on telepractice via the ASHA Practice Portal to assist speech-language pathologists, audiologists, and other qualified professionals in decision making and ethical and legal practice issues. In addition, the InterOrganizational Practice Committee (2020) and psychology-related organizations offer further guidance, particularly during physical distancing requirements.

The *Western Aphasia Battery—Revised* (WAB-R; Kertesz, 2007) can be administered in a telepractice context by using digital tools from Q-global®, Pearson's secure online-testing and scoring platform. Specifically, Q-global digital assets (e.g., stimulus books) can be shown to the examinee in another location via the screen-sharing features of teleconference platforms. Details regarding Q-global and how it is used are provided on the [Q-global product page](#).

Administering the WAB-R via telepractice is possible; however, it is important to consider the fact that the normative data were collected via face-to-face assessment. Telepractice is a deviation from the standardized administration, and the methods and approaches to administering it via telepractice should be supported by research and practice guidelines when appropriate.

Providers engaging in telepractice assessment may train facilitators to work with them on a regular basis. If such a facilitator is well trained and in a professional role (i.e., a trained facilitator), they can present manipulatives and materials as well as adjust audiovisual

equipment. This approach yields the WAB-R composite scores that are available in face-to-face assessment mode. If a trained facilitator is not used, it may impact the workflow of the session, subtest selection, and the approach to deriving composite scores.

Untrained facilitators (i.e., family members or caregivers) typically do not remain in the room with the examinee throughout a testing session. The examiner should plan to minimize (as much as possible) the need for the untrained facilitator to remain in the room, once the administration has commenced. In cases when the untrained facilitator must remain in the room, this individual should monitor and address the examinee's practical needs, as well as any technological or administrative issues as necessary. In any case, a facilitator's role should be defined clearly by the examiner. The facilitator should only perform those functions the examiner approves and deems necessary. These functions should all be discussed and confirmed in an initial virtual meeting, prior to the assessment, where technology and process can be reviewed.

Conducting Telepractice Assessment

Conducting a valid assessment in a telepractice service delivery model requires an understanding of the interplay of a number of complex issues. In addition to the general information on Pearson's [telepractice page](#), examiners should address five factors (adapted from Eichstadt et al., 2013) when planning to administer and score assessments via telepractice.

1. Telepractice Environment & Equipment

Computers and connectivity

Two computers with audio and video capability and stable internet connectivity—one for the examiner and one for the examinee—are required. A web camera, microphone, and speakers or headphones are required for both the examiner and the examinee.

Image/screen size

When items with visual stimuli are presented, the digital image of the visual stimuli on the examinee's screen should be at least 9.7" measured diagonally, similar to an iPad or iPad Air. Some teleconferencing platforms shrink the size of images, so the facilitator should verify the image size in an initial virtual meeting. It is recommended that computer screens used for teleconference assessment be at least 15" measured diagonally. Smaller screens, such as those of iPad minis, small tablet PCs, and smartphones, are not allowed for examinee-facing content, as these have not been examined empirically and may affect stimulus presentation, examinee response, and validity of the test results. Similarly, presenting stimuli on extremely large screens has not been examined, so the same precaution applies. At the beginning of the testing session, the examiner may ask the facilitator to aim a peripheral camera or device (as described in the next paragraph) at the examinee's screen to ensure that the examinee's screen is displaying images in the correct aspect ratio and not stretching or obscuring the stimuli image.

Teleconference platform

A teleconference platform is required. Screensharing capability is required if anything other than items with verbal stimuli and responses are administered.

Video

High-quality video (HD preferred) is required during the administration. Make sure the full faces of the examiner and the examinee are seen using each respective web camera. The teleconference platform should allow all relevant visual stimuli to be fully visible to the examinee when providing instruction or completing items; the view of the examiner should not impede the examinee's view of visual test stimuli.

Screensharing digital components

Digital components are shared within the teleconferencing software as specified in [Table 1 \(PDF | 128.41 KB\)](#). There are two ways to view digital components in the Q-global Resource Library: through the pdf viewer in the browser window or full screen in presentation mode. Always use full screen (i.e., presentation) mode for digital components viewed by the examinee. This provides the cleanest presentation of test content without onscreen distractions (e.g., extra toolbars). Refer to *Using Your Digital Assets on Q-global* in the Q-global Resource Library for complete directions on how to enter presentation mode.

Test item security in the audiovisual environment

The examiner is responsible for ensuring test item security is maintained, as outlined in the Terms and Conditions for test use. The examiner should address test security requirements with the examinee (and facilitator, if applicable) during the informed consent process. The examiner should make it clear that the video should not be captured, photos should not be taken, and stimuli should not be copied or recorded, as this is a copyright violation. The examinee must agree that they will not record (audio or visual) or take photos or screenshots of any portion of the test materials or testing session, and not permit anyone to observe the testing session or be in the testing room (except for a facilitator, when necessary).

Peripheral camera or device

A stand-alone peripheral camera that can be positioned to provide a view of the session from another angle or a live view of the examinee's progress is recommended. Alternately, a separate device (e.g., a smartphone with a camera or another peripheral device) can be connected to the teleconference and set in a stable position to show the examinee's pointing or written responses. The device's audio should be silenced and microphone should be muted to prevent feedback. The examiner should guide positioning of the peripheral camera/device before administering any subtest with written, pointing, or gestured responses (refer to [Table 1 \(PDF | 128.41 KB\)](#)) so that the examiner can see the examinee's real-time responses are captured.

In a typical telepractice session, it is more feasible to make a document or moveable camera available in the examinee's location. However, the only camera available may be a stationary camera integrated into the examinee's laptop or computer screen. It is unrealistic to expect examinees to have document cameras within their homes. It may be necessary for examiners to think creatively about how to use a smartphone or peripheral tablet in the examinee's location to gain a view of the examinee's progress in a response booklet or when pointing at a screen. Prior to attempting this with an examinee, the examiner should work to become fluid and competent at directing examinees in these methods, which can require practice with varied individuals and types of smartphones. In addition, this requires planning and practice in the initial virtual meeting to prevent technical difficulties, and so the examinee feels confident doing this when it is time.

Online instructional videos (e.g., [here](#)) demonstrate how a smartphone may be used with common household objects (e.g., a tower or stack of books, paper weight, ruler, and rubber band or tape) to create an improvised document camera for use during tasks involving pointing, written, or gestured responses. Similarly, for multiple choice tasks, some examinees tend to point to responses rather than say the number or letter corresponding to their response, and other tasks (see [Table 1 \(PDF | 128.41 KB\)](#)) require the examinee to point at the stimuli. In this situation, other everyday household objects (e.g., books) could be used to form an improvised stand upon which to position the device to provide a second-angle view of the examinee pointing at the screen. Typically, devices provide the best view of the examinee's screen and pointing responses when positioned in landscape format.

Gesturing

When gesturing to the stimulus books or response booklets is necessary, the examiner should display them as digital assets onscreen and point using the mouse cursor. It may on occasion be necessary for the examiner to gesture to areas of a paper copy of a response booklet or to show how to respond to demonstration items (e.g., Symbol Span) on the examiner's camera. Refer to [Table 1 \(PDF | 128.41 KB\)](#) for specific instructions by subtest.

Capturing written performance

The examiner may ask for the completed writing task to be shown on camera immediately at the conclusion of a task, so that the examiner can score it immediately and so responses are not lost or modified.

Audio considerations

High-quality audio capabilities are required during the administration. An over the head, two-ear, stereo headset with attached boom microphone is recommended for both the examiner and examinee. Headphones with a microphone may be used if a headset is not available. An embedded microphone in an HD camera is possible, but not preferred, especially for the Repetition, Naming and Word Finding tasks, Reading Commands, Spelling, and Reading Irregular and Non-Words subtests.

Audio check

The examiner should test the audio for both the examiner and examinee in the initial virtual meeting and at the beginning of the testing session to ensure a high-quality audio environment is present. Testing the audio should include an informal conversation prior to the administration where the examiner is listening for any clicks, pops, or breaks in the audio signal that distorts or interrupts the voice of the examinee. The examiner should also ask if there are any interruptions or distortions in the audio signal on the examinee's end. Any connectivity lapses, distractions, or intrusions that occurred during testing should be reported.

Manage audiovisual distractions

As with any testing session, the examiner should do everything possible to make sure the examinee's environment is free from audio and visual distractions. If the examiner is unfamiliar with the examinee's planned physical location, a visual tour of the intended testing room should be given during the initial virtual meeting. The examiner can then provide a list of issues to address to transform the environment into one suitable for testing. For example, remove distracting items, silence all electronics, and close doors. Ensure that any clocks or calendars are out of view of the examinee. The examiner should confirm that these issues have been addressed at the time of testing. If possible, the examinee should be positioned facing away from the door to ensure the examiner can verify through the examinee's camera that the door remains shut and can monitor any interruptions. The examiner should

confirm that all other applications on the computer, laptop, or peripheral device are closed, the keyboard is moved aside or covered after the session is connected, and alerts and notifications are silenced on the peripheral device. Radios, televisions, other cellular phones, fax machines, smart speakers, printers, and equipment that emit noise must be silenced and/or removed from the room.

Lighting

Good overhead and facial lighting should be established for the examiner and examinee. Blinds or shades should be closed to reduce sun glare on faces and the computer screens.

Disruptions

The examiner should record any and all atypical events that occur during the testing session. This may include delayed audio or video, disruptions to connectivity, the examinee being distracted by external stimuli, and any other anomalies. These can be noted on the record form and should be considered during interpretation and described in the written report.

2. Assessment Procedures & Materials

Blocks and Manipulatives

Block Design administration using a trained facilitator is preferred. The blocks should be provided to the facilitator before the testing session, either via mail or personal delivery. It is not recommended to have the examinee scramble or present their own blocks.

Manipulatives also will be needed on the examiner and examinee sides during the remote administration. When using the Remote-Adapted Stimulus Book via Q-global, ask the facilitator to gather the following household items prior to the administration:

Pen | Pencil | Comb | Book | Ball | Knife | Fork | Spoon | Cup | Safety Pin | Hammer | Toothbrush | Eraser | (Pad)lock | Screwdriver | Key | Paper Clip | Watch | Rubber Band | Tape | Matches | 5-8 sheets of unlined paper | Telephone

Alternatively, the examiner may assemble the manipulatives needed on the examinee side and deliver them with the blocks as noted above. Purchasing an extra set of manipulatives may be an option—one for examinee use and one for the examiner. Refer to Pearson's Disinfecting Test Materials document for suggestions on how to clean manipulatives that will be re-used.

Digital assets

The examiner should practice using the digital assets until the use of the materials is as smooth as a face-to-face administration. It is not recommended that the examiner display items from paper stimulus books on a camera.

Considerations

Review [Table 1 \(PDF | 128.41 KB\)](#) for the specific telepractice considerations for each subtest to be administered. Note that many of the item-level and specific suggestions in this table and section are outlined in Appendix A of the Dekhtyar, et al (2020) study, and therefore have empirical evidence supporting their use clinically.

Input and output requirements and equivalence evidence

The examiner should consider the input and output requirements for each task, and the evidence available for telepractice equivalence for the specific task type.

Telepractice Versus Face-to-Face Administration

Empirical research has compared results obtained in telepractice and face-to-face administration modes. While equivalence data on similar measures are relevant, practitioners should be mindful that more research is needed to establish equivalence in all ages and for all tasks on the WAB-R. It is important to consider the conditions under which equivalence studies of telepractice and face-to-face assessment modes were conducted and attempt to reproduce these as closely as possible if testing via telepractice. Typical telepractice studies that support telepractice and face-to-face equivalence involve the examiner becoming very familiar with the teleconference platform by using it for its intended purpose and administering tests (even those that are familiar in face-to-face mode) multiple times to “practice examinees.” Some studies that have established telepractice and face-to-face mode equivalence involve a professional facilitator. However, preliminary research conducted (Stolwyk et al., 2020) with parents serving as in-home facilitators who managed audiovisual needs and response booklets found no significant differences across modes. Finally, the examinee is typically in an office- or school-based setting. Therefore, if in-home assessment is taking place, it is advisable to prepare a similar environment as much as possible as described in the Telepractice Environment & Equipment section.

Digital Versus Traditional Format

Telepractice involves the use of technology in assessment as well as viewing onscreen stimuli. For these reasons, studies that investigate assessment in digital versus traditional formats are also relevant.

A number of investigations of cognitive/linguistic tests have produced evidence of equivalence when administered and scored via digital or traditional formats to *examinees without clinical conditions* (Daniel, 2012). In addition, equivalence has been demonstrated for *examinees with clinical conditions*, such as individuals with cognitive impairments following a stroke (Willer, et al, 2016). However, it is important to note that these studies were not conducted remotely or via video conference.

Evidence by Subtest

[Table 2 \(PDF | 157.29 KB\)](#) lists each WAB-R subtest, the input and output requirements, the direct evidence of subtest equivalence using the WAB or WAB-R, and the evidence for similar tasks. The abbreviations in the Input and Output column correspond to the various input and output requirements of each subtest, and a key appears at the bottom of the table. For example, brief spoken directions as an input requirement is abbreviated as *BSD*. The numbers in the evidence columns correspond to the studies in the reference list, which is organized alphabetically.

3. Examinee Considerations

Appropriateness

The examiner should first ensure that a telepractice administration is appropriate for the examinee and for the purpose of the assessment. Clinical judgment, best practice guidance for telepractice (e.g., ASHA Practice Portal), information from professional organizations and other professional entities (e.g., licensing boards,

legal resources, professional liability insurance providers, payors), consultation with other knowledgeable telepractice professionals, existing research, and any available federal or state regulations should be considered in the decision-making process. Consideration should be given to whether the necessary administrative and technological tasks involved in a telepractice session can be accomplished without influencing results.

Preparedness

Before initiating test administration, the examiner should ensure that the examinee is well-rested, able, prepared, and ready to appropriately and fully participate in the testing session. In addition, examinees should have clean glasses and/or hearing aids in place, if applicable.

Facilitator role

If using a facilitator, the role of the facilitator must be explained to the examinee so participation and actions are understood.

Headset

It may not be appropriate or feasible for some examinees to use a headset due to behavior, positioning, physical needs, or tactile sensitivities, or if a headset is not available. Clinical judgement on the appropriate use of a headset in these situations should be used. If a headset is not utilized, the examiner's and examinee's microphones and speakers should be turned up to a comfortable volume.

Mouse

On some teleconference platforms, the examiner can pass control of the mouse to allow the examinee to point to indicate responses; this is an option if it is within the capabilities of the examinee. However, best practice guidelines provide cautions about this. For example, some guidelines suggest examiners be alert throughout administration, return control of the screen once the task is finished, and never leave the computer unattended while the examinee has control over the examiner's computer (IOPC, 2020).

4. Examiner Considerations

Practice

During the telepractice setup, and before administering to any actual examinee, the examiner should rehearse the mechanics and workflow of every item in the entire test using the selected teleconference platform so that the examiner is familiar with the administration procedures. For example, a colleague could be used as a practice examinee.

Standardized procedures

The examiner must follow the administration procedures of face-to-face administration as much as possible. For example, if a spoken stimulus cannot be said more than once in face-to-face administration, the examiner must not say it more than once in a telepractice administration unless a technical difficulty precluded the examinee from hearing the stimulus.

Administrative and technological tasks

In order to conduct a smooth telepractice administration, audiovisual needs and materials must be managed appropriately. The initial virtual meeting involves the examiner, examinee, and/or the facilitator (if used), and is the opportunity for the examiner to provide information about the audiovisual needs and materials. During the initial virtual meeting, the examiner should provide training in troubleshooting audiovisual needs that arise during the testing session, including camera angle, lighting, and audio checks. The examiner should provide verbal feedback to guide camera adjustment, checking the onscreen video shown by the peripheral camera/device to provide information about how to reposition it until the proper view is shown. The examiner should emphasize that no materials should be opened until the examiner provides instructions to do so, if applicable. The examiner should also expect to provide verbal guidance about these issues during the testing session. Refer to the Telepractice Environment & Equipment section and to [Table 1 \(PDF | 128.41 KB\)](#) for specific subtest telepractice considerations.

If used, the facilitator is to assist with administrative and technological tasks and not to manage rapport, engagement, or attention during the testing session. The examiner should direct them not to interfere with the examinee's performance or responses. Any other roles and responsibilities for which an examiner needs support, such as behavior management, should be outlined and trained prior to the beginning of the testing session. The examiner is responsible for documenting all behaviors of the facilitator during test administration and taking these into consideration when reporting scores and performance.

5. Other Considerations

There are special considerations for written reports describing testing that takes place via telepractice.

The professional completing the written report should state in the report that the test was administered via telepractice, and briefly describe the method of telepractice used. For example, *"The WAB-R was administered via telepractice using digital stimulus materials on Pearson's Q-global system, and a facilitator monitored the administration onsite during the live video connection using the [name of telepractice system, e.g., Zoom] platform."*

Comments about the facilitator's support and/or participation in any part of the administration should be documented. For example, *"The facilitator was trained on appropriate support, the procedure for such support, and the limits of support allowed prior to the session. The facilitator sat to the side of the examinee during the administration and was visible to the examiner. When directed, the facilitator presented manipulatives appropriately and supported a reliable administration of the WAB-R."*

The professional should also make a clinical judgment, similar to a face-to-face session, about whether or not the examiner was able to obtain the examinee's best performance. Clinical decisions should be explained in the report, including comments on the factors that led to the decision to conduct testing via telepractice and to report all (or not to report suspect) scores. In addition, it is recommended that the report include a record of any and all atypical events during the testing session (e.g., delayed video or audio, disruptions to connectivity, extraneous noises such as phone ringing or loud dog barking, person or animal unexpectedly walking into room, the examinee responding to other external stimuli). Notes may be recorded about these issues on the record form. List and describe these anomalies as is typical for reporting behavioral observations in the written report, as well as any observed or perceived impact on the testing sessions and/or results, and consider these in the interpretation of results. For example, *"The remote testing environment appeared free of distractions, adequate rapport was established with the*

examinee via video/audio, and the examinee appeared appropriately engaged in the task throughout the session. No significant technological problems or distractions were noted during administration. Modifications to the standardization procedure included: [list]. The WAB-R subtests, or similar tasks, have received initial validation in several samples for remote telepractice and digital format administration, and the results are considered a valid description of the examinee's skills and abilities."

Conclusion

The WAB-R was not standardized in a telepractice mode, and this should be taken into consideration when utilizing this test via telepractice and interpreting results. Provided that the examiner has thoroughly considered and addressed the factors and the specific considerations as listed above, the examiner should be prepared to observe and comment about the reliable and valid delivery of the test via telepractice. Materials may be used via telepractice without additional permission from Pearson in the following published context:

WAB-R manuals and digital stimulus books via Q-global

Any other use of the WAB-R via telepractice is not currently recommended. This includes, but is not limited to, scanning the paper stimulus books, digitizing the paper record forms, holding the stimulus books physically up in the camera's viewing area, or uploading a manual onto a shared drive or site.

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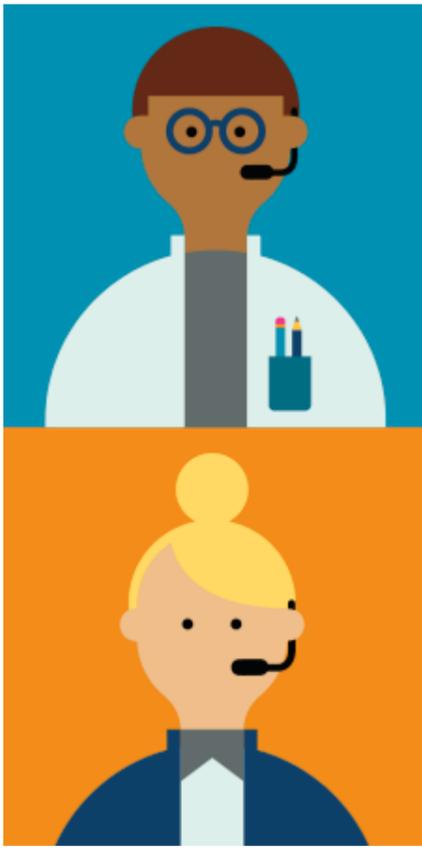
Telepractice & Digital vs Traditional Modes

See [Table 2 \(PDF | 157.29 KB\)](#)

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A customer reflects on
using Q-global digital
stimulus books and



manuals:

Q-Global has been a great solution for us. Managing testing materials between a variety of sites and districts could be very tricky. The online testing materials have completely resolved any access challenges we faced. Observing and recording the client's response through telepractice continues to require a good deal of coordination- particularly for pointing activities. However, the clinician being able to directly manage test stimuli and present them to the client through screen share technology makes that process much less cumbersome.

Thank you for being so proactive with making your tools accessible to telepractitioners!

Nate Cornish, MS, CCC-SLP
Clinical Director
VocoVision

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