

Telepractice and the CELF–5 Metalinguistics

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 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.

Several professional organizations and experts have provided guidance on telepractice assessment (American Psychological Association Services [APA Services], 2020; American Speech-Language-Hearing Association [ASHA], 2021; Association of State and Provincial Psychology Boards [ASPPB], 2013; Grosch et al., 2011; Inter Organizational Practice Committee [IOPC], 2020; Stolwyk et al., 2020) to assist professionals in decision making and ethical and legal practice issues.

The Clinical Evaluation of Language Fundamentals–Fifth Edition Metalinguistics (CELF–5 Metalinguistics; Wiig & Secord, 2014) 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 teleconferencing software. Details regarding Q-global and how it is used are provided on the [Q-global product page](#).

A spectrum of options is available for administering this assessment via telepractice; however, it is important to consider the fact that the normative data were collected via an in-person 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.

Professionals engaging in telepractice assessment typically train facilitators to work with most young examinees and older clients unfamiliar with technology to provide greater coverage to underserved populations (e.g., only two professionals within a 500-mile radius, shortage of speech-language pathologists within a school district). When facilitators are well trained and in a professional role (i.e., a professional facilitator), they can present response booklets as well as adjust audiovisual equipment. This approach yields scores that are available for in-person assessment mode. If a professional facilitator is not used, it impacts the workflow of the session, subtest selection, and the approach to deriving scores.

In times when physical distancing is necessary (such as the COVID-19 pandemic), using a professional facilitator may not be safe or feasible. When the examiner determines that the examinee cannot participate independently and testing must occur under physical distancing constraints, the only facilitator available may be someone in the examinee's home (e.g., a parent, guardian, or caregiver). If the on-site facilitator is not in a professional role (i.e., nonprofessional facilitator), they can assist with technological and administrative tasks during testing and should be oriented to these responsibilities in a pretesting virtual meeting and again at the beginning of the session.

When examinees are able to manage the technology requirements and troubleshoot technology problems that can arise, it is possible that the examinee may participate without the help of an on-site facilitator. If the examiner determines that no facilitator is required (i.e., the examinee can assist with technological and administrative tasks during testing), the examinee should be oriented to these responsibilities before, and again at the beginning of, the session. An initial virtual meeting should occur in advance of the testing session to address numerous issues specific to testing via telepractice. This initial virtual meeting is described in the administrative and technological tasks portion of the Examiner Considerations section and referred to in various sections of this document. The examiner should consider best practice guidelines, the referral question, and the examinee's condition, as well as telepractice equivalence study conditions to determine if this is possible and appropriate. Independent examinee participation may not be possible or appropriate, for example, for examinees with little technological literacy and experience and/or who are developmentally or cognitively unable to assist with technological and administrative tasks during testing.

For the CELF-5 Metalinguistics, professional and nonprofessional facilitators typically remain in the room with the examinee throughout the testing session so that they are readily available to provide technology assistance or respond to other needs. When facilitators remain in the room, they should do so passively and unobtrusively, monitoring and addressing the examinee's practical needs and any technological or administrative issues. The facilitator's role should be defined clearly by the examiner. The facilitator should only perform those functions the examiner approves and deems necessary. The facilitator in the room should always remain accessible. If a facilitator needs to leave the room for any reason, it is important that the examiner is able to contact the facilitator

immediately if the examinee does not cooperate during testing, attempts to leave the room, or if there is a medical emergency. It is helpful to have personal and local emergency numbers for each examinee.

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 (Eichstadt et al., 2013) when planning to administer and score assessments via telepractice:

1. [Telepractice Environment & Equipment](#)
2. [Assessment Materials & Procedures](#)
3. [Examinee Considerations](#)
4. [Examiner Considerations](#)
5. [Other Considerations](#)

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. A second computer screen or split-screen format on a large computer monitor for the examiner is helpful to allow a view of a Pearson-delivered digital manual or administration directions, but the examiner can also use a paper format manual or administration directions. The second computer screen or large screen also tends to make sharing test content more straightforward for the examiner.

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®. Because some teleconferencing software shrinks the size of images, the image size should be verified in the 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 for a peripheral camera or device (as described later in this section) to be aimed 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.

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.

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.

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. 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.

Teleconferencing Software

Teleconferencing software is required. Screen-sharing 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 teleconferencing software 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.

Peripheral Camera or Device

A standalone peripheral camera can be used to provide a view of the session from another angle or a live view of the examinee's progress. 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 the facilitator or tech-savvy examinee to position the peripheral camera/device before beginning written response tasks or subtests that elicit pointing or gestured responses (refer to [Table 1](#)) so that the examiner can see that the examinee's real-time responses are captured.

In a typical telepractice session, it is helpful to set up an external camera in the examinee's location. However, while physical distancing is necessary, the only camera available may be a stationary camera integrated into the examinee's laptop or computer screen. It may be necessary for examiners to think creatively about how to use a smartphone or other device in the examinee's location to view the examinee's progress in a response booklet or when pointing at a screen. Before discussing this with a facilitator or examinee at a pretest meeting, the examiner should work to become fluid and competent at directing examinees in these methods, which can require extensive practice with different individuals and types of devices. In addition, setup of an external camera requires planning and practice in the initial virtual meeting to prevent technical difficulties and so the facilitator or 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 response booklets. 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 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. A simple mirror behind the examinee has been used successfully to observe pointing responses. Typically, devices provide the best view of the examinee's screen and pointing responses when positioned in landscape orientation. Although using additional cameras or devices/objects may not be an optimal solution for telepractice, it can be functional if executed well.

Screen Sharing Digital Components

Digital components are shared within the teleconferencing software as specified in [Table 1](#). 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 presentation of test content without on-screen 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.

2. Assessment Materials & Procedures

Test Item Security

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 to the examinee/caregivers 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). Any test-related materials used in the testing session must be returned to the examiner.

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 or in the Q-interactive notes, if applicable, and should be considered during interpretation and described in the written report. Refer to [Other Considerations](#) for guidance on report writing.

Response Booklets

The response booklets should be provided in advance of the testing session, and the plan for securing and forwarding/returning materials, real-time and after testing, should be communicated. The examiner may ask for the completed response booklet 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. One successful approach to protecting test security uses sealed envelopes (i.e., the sealed envelope method) and is described as follows. The examiner gathers response booklets and a self-addressed stamped envelope. The examiner places these materials in an envelope and signs it on the seal, then mails or delivers it to the testing location. The examiner must emphasize that the sealed envelope containing the response booklets cannot be opened until the examiner asks. The response booklets are then placed in the provided self-addressed stamped envelope after completion of each subtest, sealed at the conclusion, and signed on the seal on camera, and then mailed or delivered to the examiner immediately following the testing session.

Digital Assets

The examiner should practice using the digital assets until the use of the materials is as smooth as an in-person administration. It is not recommended that the examiner display items from paper stimulus books on a camera. When holding a paper stimulus book up to the camera, it is difficult to hold the book still and centered in the middle of the examinee's screen and to prevent fingers from covering parts of the test stimuli on the page., Refer to *Using Your Digital Assets on Q-global* in the Q-global Resource Library for complete directions.

Gesturing

When gesturing to the stimulus books or response booklets is necessary, the examiner should display them as digital assets on-screen 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 on the examiner's camera. Refer to [Table 1](#) for specific instructions by subtest.

Content Considerations

Review [Table 1](#) for the specific telepractice considerations for each subtest to be administered.

Table 1. Specific Telepractice Considerations

Subtest(s)	Considerations
Making Inferences Conversation Skills Multiple Meanings Figurative Language	<ul style="list-style-type: none">• Requires high-quality audio for examiner and examinee• Examiner points with the mouse to indicate stimuli on-screen• Examinee must indicate responses by pointing to picture(s). Peripheral camera/device should be placed in a stable position that shows examinee's screen and provides a view of the examinee's pointing response.
Metalinguistics Profile	<ul style="list-style-type: none">• Requires another person (respondent) to complete the rating scale• Rating scales may be mailed to the respondent(s) before or after test administration

Evaluating Equivalence Evidence

Examiners should review the current research available on equivalence between different modes of administration before proceeding to use remote administration of a standardized assessment with normative data collected via in-person assessment. When reviewing the literature, the examiner should consider the input and output requirements for each task, and the evidence available for telepractice equivalence for the specific task type. Direct evidence of equivalence for a specific task may be available because the task was researched in a study with results indicating no significant difference between telepractice and in-person assessment. Indirect evidence may also be reported in the literature for a task that is similar in construct and input/output demands to the standardized assessment being considered for remote administration and may help determine the examiner's level of confidence in applying the norms. For instance, a study demonstrating direct evidence for the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) Picture Naming subtest also demonstrates valuable indirect evidence for the WISC-V Vocabulary and CLQT+ Confrontation Naming subtests because Picture Naming, Vocabulary, and Confrontation Naming all require brief spoken directions with pictorial stimuli inputs with open-ended spoken response

outputs. Examiners can have more confidence that the normative scores are valid when tasks have direct evidence showing equivalency between modes.

In reviewing the literature of telepractice-in-person and digital-traditional investigations, professionals should also be mindful of the age range and population (e.g., clinical group) of the research study to consider relevancy for the examinee. Greater caution is recommended when only indirect evidence of equivalency is available for a task, or when equivalence has not been established for a particular examinee's age range and clinical condition. However, it can be informative to consider any such available evidence when considering impact of remote administration on results and interpretation. Pearson Clinical Assessment is tracking and aggregating the relevant equivalence evidence for its assessments, including the age range, population, direct evidence, and indirect evidence (see [Evidence for Remote Assessment](#)).

Telepractice involves the use of technology in assessment as well as viewing on-screen stimuli. For these reasons, studies that investigate assessment in digital versus traditional formats are also relevant. Investigations have produced evidence of equivalence when administered and scored via digital or traditional formats to examinees with clinical conditions (e.g., Raiford et al., 2014; Raiford et al., 2015, 2016) as well as examinees without clinical conditions (e.g., Drozdick et al., 2016). It is important to note that digital studies are relevant but are not always conducted remotely or via video conference. However, equivalence has been demonstrated for examinees with or without clinical conditions in remote studies (e.g., Dekhtyar et al., 2020; Sutherland et al., 2017).

It is important to consider the conditions under which equivalence studies of telepractice and in-person assessment modes were conducted and attempt to reproduce these as closely as possible if testing via telepractice. Typical telepractice studies that support telepractice and in-person equivalence involve the examiner becoming very familiar with the teleconference platform by using it for its intended purpose for several hours and administering tests (even those that are familiar for in-person mode) multiple times to practice examinees (e.g., professional colleagues).

Most telepractice-based studies have been conducted with volunteer subjects in controlled environments. When social distancing is key (such as during the COVID-19 pandemic) some assessments may need to occur in examinee's homes, and it should be noted that very little research has been completed regarding remote assessment in private homes. Some studies that have established telepractice and in-person mode equivalence involve a professional facilitator. In addition, preliminary research conducted and described by Lana Harder (Stolwyk et al., 2020) with parents serving as in-home facilitators who managed audiovisual needs and response booklets found no significant differences across modes.

Research has compared results obtained in telepractice and in-person administration modes for CELF-4 subtests that are also included on CELF-5 Metalinguistics (Sutherland et al., 2017; Waite et al., 2010). Equivalence was supported for the subtests and composites that were examined. The input and output requirement of the test tasks are the same types of tasks used in the CELF-5 Metalinguistics test. However, the studies evaluated only interrater reliability of an examiner in person and an examiner in a remote location. The studies also did not examine all of the test tasks that appear on CELF-5 Metalinguistics. While equivalence data on similar measures are relevant, professionals should be mindful that more research is needed to establish equivalence in all ages

and for all tasks on the CELF-5 Metalinguistics. [Table 2](#) lists the input and output requirements of each task. The abbreviations in the Input and Output columns correspond to the various input and output requirements of each task, and a key appears at the bottom of the table. For example, brief spoken directions as an input requirement is abbreviated as BSD.

Table 2. Input and Output Requirements

Task	Input^a	Output^b
Conversation Skills	BSD, PS, SS	OE, SPR
Making Inferences (Part 1) Figurative Language (Part 1) Multiple Meanings	BSD, SS, WP	MC, BSR or PR
Making Inferences (Part 2) Figurative Language (Part 2)	BSD, SS, WP	BSR or PR, MC

Note. ^aInput abbreviations are: BSD = Brief spoken directions, PS = Pictorial stimuli, SS = Spoken stimuli, WP = Words in print

^bOutput abbreviations are: BSR = Brief spoken response, MC = Multiple choice, OE = Open ended, PR = Pointing response, SPR = Spoken response

3. Examinee Considerations

Appropriateness

The examiner should first ensure that a telepractice test administration is appropriate for the examinee and for the purpose of the assessment. Clinical judgment, best practice guidance for telepractice (e.g., ASHA, 2021; APA Services, 2020; ASPPB, 2013; IOPC, 2020), information from professional organizations and other professional entities (e.g., licensing boards, legal resources, professional liability insurance providers, payors), consultation with other knowledgeable 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.

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 judgment 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 teleconferencing software, 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, the IOPC guidelines suggest examiners be alert throughout administration, resume 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 teleconferencing software 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 in-person administration as much as possible. For example, if a spoken stimulus cannot be said more than once in in-person 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.

Real-Time Troubleshooting

In order to conduct a smooth telepractice session, 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 on-screen 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.

Collaborating With Facilitators

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. Refer to the [Telepractice Environment & Equipment](#) section and to [Table 1](#) for specific subtest telepractice considerations.

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. The professional should also make a clinical judgment, similar to an in-person 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). 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.

An example of a written report might include:

"The CELF-5 Metalinguistics was administered via remote telepractice using digital stimulus materials on Pearson's Q-global system, and a facilitator monitored the administration on-site using a printed response booklet during the live video connection using the [name of telepractice system, e.g., Zoom] platform. 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 CELF-5 Metalinguistics 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."

Notes may be recorded about any testing issues on the record form.

Conclusion

This test was not standardized in a telepractice mode, and this should be taken into consideration when utilizing this test via telepractice and interpreting results. For example, the examiner should consider relying on convergence of multiple data sources and/or being tentative about conclusions. 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 contexts:

- CELF-5 Metalinguistics Digital Stimulus Book on Q-global
- CELF-5 Metalinguistics via a Pearson-licensed telepractice provider/platform

Any other use of this test 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.

References

- American Psychological Association Services (APA Services). (2020). *Guidance on psychological tele-assessment during the COVID-19 crisis*. (2020).
https://www.apaservices.org/practice/reimbursement/health-codes/testing/tele-assessment-covid-19?fbclid=IwAR1d_YNXYS2Yc5mdlz_ZIYSkrrj_6A9BQeKulHxEEjjRh1XDR6fOYncM3b4
- American Speech-Language-Hearing Association (2021). *Considerations for speech, language, and cognitive assessment via telepractice*. <https://www.asha.org/slp/clinical/considerations-for-speech-language-and-cognitive-assessment-via-telepractice/>
- Association of State and Provincial Psychology Boards (ASPPB). (2013). *ASPPB telepsychology task force principles and standards*. http://houstonneuropsych.com/wp-content/uploads/2020/04/ASPPB_TELEPSYCH_PRINCIPLES.pdf
- Dekhtyar, M., Braun, E. J., Billot, A., Foo, L., & Kiran, S. (2020). Videoconference administration of the Western Aphasia Battery-Revised: Feasibility and validity. *American Journal of Speech-Language Pathology*, 29(2), 673–687. https://doi.org/10.1044/2019_AJSLP-19-00023
- Drozdzick, L. W., Getz, K. G., Raiford, S. E., & Zhang, O. (2016). *WPPSI-IV: Equivalence of Q-interactive and paper formats* (Q-interactive technical report 14). Pearson.
<https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/q-interactive/001-s-WPPSI-Qi-Tech-Report-14-FNL.pdf>
- Eichstadt, T. J., Castilleja, N., Jakubowitz, M., & Wallace, A. (2013, November). Standardized assessment via telepractice: Qualitative review and survey data [Paper presentation]. Annual meeting of the American Speech-Language-Hearing Association, Chicago, IL, United States.
- Grosch, M. C., Gottlieb, M. C., & Cullum, C. M. (2011). Initial practice recommendations for teleneuropsychology. *The Clinical Neuropsychologist*, 25, 1119–1133.
<https://doi.org/10.1080/13854046.2011.609840>

- Inter Organizational Practice Committee (IOPC). (2020). *Recommendations/guidance for teleneuropsychology (TeleNP) in response to the COVID-19 pandemic*. <https://static1.squarespace.com/static/50a3e393e4b07025e1a4f0d0/t/5e8260be9a64587cfd3a9832/1585602750557/Recommendations-Guidance+for+Teleneuropsychology-COVID-19-4.pdf>
- Raiford, S. E., Drozdick, L. W., & Zhang, O. (2015). *Q-interactive special group studies: The WISC-V and children with autism spectrum disorder and accompanying language impairment or attention-deficit/hyperactivity disorder* (Q-interactive technical report 11). Pearson. https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/q-interactive/013-s-Technical_Report_11_WISC-V_Children_with_Autism_Spectrum_Disorder_and_Accompanying_Language_Impairment_or_Attention_Deficit_Hyperactivity_Disorder.pdf
- Raiford, S. E., Drozdick, L. W., & Zhang, O. (2016). *Q-interactive special group studies: The WISC-V and children with specific learning disorders in reading or mathematics* (Q-interactive technical report 13). Pearson. https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/q-interactive/011-s-Q-i%20TR13_WISC-V_SLDR_SLDM_FNL.pdf
- Raiford, S. E., Holdnack, J. A., Drozdick, L. W., & Zhang, O. (2014). *Q-interactive special group studies: The WISC-V and children with intellectual giftedness and intellectual disability* (Q-interactive technical report 9). Pearson. https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/q-interactive/012-s-Technical_Report_9_WISC-V_Children_with_Intellectual_Giftedness_and_Intellectual_Disability.pdf
- Stolwyk, R., Hammers, D. B., Harder, L., & Cullum, C. M. (2020). *Teleneuropsychology (TeleNP) in response to COVID-19*. <https://event.webinarjam.com/replay/13/pyl2nayhvpsp09>
- Sutherland, R., Trembath, D., Hodge, H., Drevensek, S., Lee, S., Silove, N., & Roberts, J. (2017). Telehealth language assessments using consumer grade equipment in rural and urban settings: Feasible, reliable and well tolerated. *Journal of Telemedicine and Telecare*, 23(1), 106–115. <https://doi.org/10.1177/1357633X15623921>
- Waite, M. C., Theodoros, D. G., Russell, T. G., & Cahill, L. M. (2010). Internet-based telehealth assessment of language using the CELF-4. *Language, Speech, and Hearing Services in Schools*, 41(4), 445–458. [https://doi.org/10.1044/0161-1461\(2009/08-0131\)](https://doi.org/10.1044/0161-1461(2009/08-0131))
- Wiig, E. H., & Secord, W.A. (2014). *Clinical Evaluation of Language Fundamentals—Fifth Edition Metalinguistics*. Pearson.