Telepractice and the WISC-V

A telepractice session includes an examiner in one geographical location and an examinee at a different location. Using a high-speed internet connection and a secure software platform designed for web-based meetings (i.e., teleconference platform), an examiner and examinee—along with a facilitator in the examinee location, if necessary—join a shared web-based meeting via computers with audio and video capability. The examiner and examinee can see and hear one another throughout the session. Text, pictures, and video can be shared through the teleconference platform.

The Wechsler Intelligence Scale for Children–Fifth Edition (WISC–V; Wechsler, 2014) can be administered in a telepractice context by using digital tools from Q-global®, Pearson’s secure online-testing platform. Specifically, Q-global digital assets (e.g., stimulus books) can be shown via the screen-sharing features of teleconference platforms to an examinee in another location. 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 the WISC–V via telepractice. They vary based on the role of the onsite facilitator. If the onsite facilitator is a well-trained professional, telepractice can involve the use of manipulatives (e.g., blocks), response booklets, and audiovisual equipment. This method supports all of the traditional published WISC–V composite scores.

During the COVID-19 pandemic, however, the only facilitator available may be someone in the examinee’s home. If using an onsite facilitator who is not in a professional role (e.g., parent/guardian), the examiner should use their professional judgment about the capacity of the facilitator to perform the required functions correctly and without interfering in the testing session. If deemed appropriate, the onsite facilitator can open response booklets provided in an envelope (as outlined in the Test/Test Materials section) during the session. Rather than Block Design, Visual Puzzles can be substituted or the Full Scale IQ can be prorated. This method makes available all of the WISC–V composite scores with the exception of the Visual Spatial Index, the Nonverbal Index, and the General Ability Index.

If the onsite facilitator is a parent/guardian, follow the guidelines outlined in the administration and scoring manual regarding the presence of a parent or guardian in the room to ensure adherence to standard administration procedures. As specified in the manual, it is very rare that the parent/guardian stays in the room during testing. The parent/guardian may only make audiovisual adjustments and, if deemed appropriate, manage response booklets.

The onsite facilitator can play an even more limited role without managing response booklets if necessary. For example, the facilitator may operate audiovisual equipment only. If blocks and response booklets are not used, composite scores can be derived through using a combination of the WISC–V published scores and portions of Essentials of WISC–V Integrated Assessment (Raiford, 2017), which is available to customers within the Q-global Resource Library courtesy of John Wiley & Sons. These are referred to as Essentials.
nonmotor composites. In the case that blocks and response booklets are not used, the following composites are available:

Composites in the WISC-V:

Essentials nonmotor composites:

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. Audio/visual environment

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 stationary web camera, microphone, and speakers or headphones are required for both the examiner and the examinee. It is recommended that the examiner have a second computer screen so that he or she can view the Administration and Scoring Manual, but the paper format manual can also be used.

Teleconference platform

A teleconference platform with screensharing capability is required.

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 video of the examiner should not impede the examinee's view of visual stimuli.

Screensharing digital components

Digital components are shared within the teleconferencing software as specified in Table 1 (PDF | 127.96 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.

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 prior to the testing session. Typically, computer screens used for teleconference assessment are a minimum of 15” measured diagonally. Smaller screens, such as those of iPad minis 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. Prior to testing, ask the onsite 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.

**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 helpful. Alternately, the onsite facilitator may join the teleconference from via a separate device (e.g., a smartphone with a camera or another peripheral device) and set it in a stable position to show the examinee's pointing or written responses.

If using an onsite facilitator who is not in a professional role (e.g., parent/guardian), the examiner should use their professional judgment about the capacity of the facilitator to perform the required functions correctly and without interfering in the testing session. A parent/guardian does not typically remain in the room during testing except on rare occasions as described in the administration and scoring manual, so it is necessary to train them how to place the peripheral camera/device in a stable position before beginning the session.

The facilitator should silence the audio and mute the microphone on any peripheral devices to prevent feedback. Train the onsite facilitator to position the peripheral camera/device before written response tasks (i.e., Coding, Symbol Search, and Cancellation), Block Design, and subtests that elicit pointing or gestured responses (refer to Table 1 [PDF | 127.96 KB]) so you can view the examinee's real-time responses. **Instruct the facilitator not to capture video or take photos as this is a copyright violation.**

During the COVID-19 outbreak, it may be necessary for examiners to think creatively about how to gain the optimal view of the examinee's progress in a response booklet or when pointing at a screen. A document camera is the best solution if the examinee's camera cannot be shifted to provide the correct view of response booklets (e.g., if the examinee's camera is integrated into a laptop or computer screen). However, it is unrealistic to expect examinees to have document cameras within their homes. Online instructional videos (e.g., [here](https://www.geomasassessment.com/professional-assessments/digital-solutions/telepractice/telepractice-and-the-wisc-v.html)) 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 or manipulatives. While this is not optimal or a permanent solution for telepractice, it is functional in the present situation. 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 (e.g., Arithmetic, Naming Speed subtests; see Table 1 [PDF | 127.96 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, display them as digital assets onscreen and point using the mouse. 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., Coding) on the examiner’s camera. Refer to Table 1 for specific instructions by subtest.

Capturing response booklet performance

Response booklets should be placed in the provided envelope immediately upon completion to ensure that no responses are lost or altered prior to scoring. For tasks that are simple to score, it is acceptable to ask the examinee or facilitator to show the completed response booklet on camera at the conclusion of the session before they are sealed into the envelope to be returned (as discussed in the Test/Test Materials section).

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.

Audio check

Test the audio for both the examiner and examinee prior to the administration to ensure a high-quality audio environment is present. This is especially critical for Digit Span, Letter-Number Sequencing, and Arithmetic. 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 the examinee and facilitator if there are any interruptions or distortions in the audio signal on their end. Record any connectivity lapses, distractions, or intrusions that occurred during testing.

Manage audiovisual distractions

As with any testing session, make sure the examinee’s environment is free from audio and visual distractions. If you are unfamiliar with the examinee’s planned physical location, meet virtually with the facilitator in advance of the testing session. Ask the facilitator to show the intended testing room and provide a list of issues to address to transform the environment into an environment suitable for testing. For example, remove distracting items, silence all electronics, and close doors. Ask the examinee and facilitator to close all other applications on the computer, laptop, or other device, and to silence alerts and notifications on the peripheral device. Ensure radios, televisions, other cellular phones, fax machines, smart speakers, and equipment that emit noise are silenced and removed from the room.

Lighting

Establish good overhead and facial lighting for the examiner and examinee. Close blinds or shades to reduce sun glare on faces and the computer screens.

2. Examiner factors

Practice
During the telepractice setup, and before administering to any actual examinee, practice the mechanics and workflow of every item in the entire test using the selected teleconference platform so that you are familiar with the administration procedures. For example, use a colleague as a “practice examinee.”

**Standardized procedures**

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, do not say it more than once in a telepractice administration unless a technical difficulty precluded the examinee from hearing the stimulus.

**Facilitator role and training**

If you plan to utilize blocks, set aside time in advance of the session to train the onsite facilitator until their presentation of the blocks during instructions and items is done according to the *WISC–V Administration and Scoring Manual*.

The onsite facilitator's role in a telepractice session is largely to manage audiovisual needs and materials. Train the facilitator to troubleshoot audiovisual needs that arise during the testing session, including camera angle, lighting, and audio checks. The facilitator's role is not to manage rapport, engagement, or attention during the testing session and they are not to interfere with the examinee's performance or responses.

If using an onsite facilitator who is not in a professional role (e.g., parent/guardian), the examiner should use their professional judgment about the capacity of the facilitator to perform the required functions correctly and without interfering in the testing session. The examiner should communicate expectations about the facilitator's role in testing tasks immediately prior to the testing session when the examinee is not present to ensure that nothing is disclosed to the examinee about the tasks. Do not allow the facilitator to show or warn the examinee about any portion of the test. Instruct the facilitator not to open any materials until you provide instructions to do so, if applicable. Expect to provide verbal guidance to the facilitator during the testing session. *It is not recommended to allow a parent/guardian to present blocks for Block Design, nor to attempt to have the examinee scramble or present their own blocks.*

For subtests that involve written responses (e.g., Coding), or if the examinee prefers to point on multiple choice tasks, train the facilitator to position the peripheral camera/device to allow you to view the examinee's progress and responses. Instruct the facilitator to watch the onscreen video shown by the peripheral camera/device and to listen to feedback from you to guide camera angle adjustment as they position the camera/device. Refer to the Audio/Visual Equipment section and to Table 1 (PDF | 127.96 KB) for specific subtest telepractice considerations for the facilitator.

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.

### 3. Examinee factors

**Appropriateness**

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Ensure that a telepractice administration is appropriate for the examinee and for the purpose of the assessment. Use clinical judgement, best practice guidance for telepractice (e.g., Interorganizational Practice Committee, 2020), information from professional organizations, existing research, and any available federal or state regulations in the decision-making process.

**Preparedness**

Before initiating test administration, ensure that the examinee is well-rested, able, prepared, and ready to appropriately and fully participate in the testing session.

**Facilitator role**

Explain the role of the facilitator 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. Use clinical judgement on the appropriate use of a headset in these situations. If a headset is not utilized, ensure your microphone and the examinee's speakers are turned up to a comfortable volume.

**Mouse**

On some teleconference platforms, you can pass control of the mouse to allow the examinee to point to indicate responses; this is acceptable if it is within the capabilities of the examinee. Best practice guidelines provide cautions about this, however (IOPC, 2020)

4. Test/test materials

**Copyright**

Obtain permission for access to copyrighted materials (e.g., stimulus books, response booklets) as appropriate. Pearson has provided a letter of No Objection (PDF | 77.5 KB) to permit use of copyrighted materials for telepractice via non-public facing teleconferencing software and tools to assist in remote administration of assessment content during the COVID-19 pandemic.

**Response booklets**

Provide the correct printed copies of response booklets to the facilitator in advance of the testing session and communicate the plan for securing and forwarding/returning materials, real-time and after testing. For example, seal the response booklets in separate envelopes that are clearly labeled and have the facilitator open the envelopes on camera only after requested to do so, and return the original response booklets to the examiner in prepaid envelopes to ensure test security is not compromised and test records can be maintained.

**Blocks**

If using blocks, those should be provided to the facilitator and returned to the examiner following the testing session. It is not recommended to allow a parent/guardian to present blocks for Block Design, nor to attempt to have the examinee scramble or present their own blocks.

**Digital assets**

Practice using the digital assets until the use of the materials is as smooth as a face-to-face administration.

Considerations

Review Table 1 (PDF | 127.96 KB) for the specific telepractice considerations for each subtest to be administered.

Input and output requirements and equivalence evidence

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**

A study of the equivalence of WISC-V telepractice compared with face-to-face administration and scoring modes in examinees with specific learning disabilities demonstrated that the primary index scores and the Full Scale IQ corresponded to an extremely high degree (Hodge et al., 2019). A study of the equivalence of Wechsler Abbreviated Scale of Intelligence (WASI; Pearson, 1999) telepractice compared with face-to-face modes in examinees with intellectual disability produced similar results (Temple et al., 2010). Several tasks drawn from the Wechsler scales have also produced evidence of equivalence in telepractice and face-to-face modes for examinees with a wide variety of clinical conditions (Cullum et al., 2006, 2014; Galusha-Glasscock et al., 2016; Grosch, Weiner, Hynan, Shore, & Cullum, 2015; Hildebrand, Chow, Williams, Nelson, & Wass, 2004; Ragbeer et al., 2016; Stain et al., 2011; Temple et al., 2010; Wadsworth, Dhima, et al., 2016; Wadsworth, Galusha-Glasscock, et al., 2018). Other studies support equivalence of tasks that are highly similar to those of the WISC-V subtests with nonclinical examinees using telepractice compared with face-to-face administration and scoring (Galusha-Glasscock et al., 2016; Sutherland et al., 2017; Wright, 2016, 2018). In addition, a meta-analysis of telepractice studies provides rigorous support for telepractice and face-to-face mode equivalence (Breary et al., 2017).

**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 the *Wechsler Intelligence Scale for Children–Fourth Edition* (WISC–IV; Wechsler, 2003) and the WISC–V have produced evidence of equivalence when administered and scored via digital or traditional formats to examinees without clinical conditions (Daniel, 2012; Daniel et al., 2014; Raiford, Zhang, et al., 2016). In addition, equivalence has been demonstrated for examinees with clinical conditions, such as intellectual giftedness or intellectual disability (Raiford et al., 2014, Raiford, Zhang, et al., 2016), attention-deficit/hyperactivity disorder or autism spectrum disorder (Raiford et al., 2015; Raiford, Zhang, et al., 2016), or specific learning disorders in reading or mathematics (Raiford, Drozdick, et al., 2016; Raiford, Zhang, et al., 2016).

**Evidence by Subtest**

Table 2 (PDF | 126.84 KB) lists each WISC–V subtest, the input and output requirements, the direct evidence of subtest equivalence in telepractice–face-to-face and digital–traditional investigations, and the evidence for similar tasks. The numbers in the evidence columns correspond to the studies in the reference list, which is organized alphabetically in telepractice and digital sections. For clarity, each study is denoted either T or D, with T indicating the...
study investigated telepractice–face-to-face mode, and D indicating the study addressed digital–traditional format.

5. Other/miscellaneous

State in your report that the test was administered via telepractice, and briefly describe the method of telepractice used. For example, “The WISC–V was administered via remote telepractice using digital stimulus materials on Pearson’s Q-global system, and a facilitator monitored the administration onsite using a printed response booklet during the live video connection using the [name of telepractice system, e.g., Zoom] platform.”

Make a clinical judgment, similar to a face-to-face session, about whether or not you are able to gather the examinee’s best performance. Report your clinical decision(s) in your report and comment on the factors that led to the decision to report (or not report) the scores. 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 were noted during administration. Modifications to the standardization procedure included: [list]. The WISC–V 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 WISC–V 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 you have thoroughly considered and addressed all five factors and the specific considerations as listed above, you are prepared to observe and comment about the reliable and valid delivery of the WISC–V via telepractice. You may use the WISC–V materials via telepractice without additional permission from Pearson in the following published contexts:

- WISC–V via Q-interactive (requires advanced technology skills and mirroring software)
- WISC–V on the PresenceLearning telepractice platform (coming soon)!

Any other use of the WISC–V via telepractice requires prior permission from Pearson and is not currently recommended. This includes, but is not limited to, scanning the paper stimulus books, digitizing the paper record forms, holding the materials physically up in the camera’s viewing area, or uploading a manual onto a shared drive or site.
References


Telepractice–Face-to-Face Mode:


Digital–Traditional Format


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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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