# Administration and Scoring Guidelines identi-Fi A Test of Visual Organization and Recognition\*

Remote

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At PAR, we are committed to doing everything we can to help you serve your clients and recognize that you may need methods to conduct testing remotely. This paper describes how you can use a videoconferencing tool to remotely administer the digital version of the Identi-Fi: A Test of Visual Organization and Recognition. This is a living document and will be updated as needed. For additional guidance on preparing your clients for their telehealth appointments, visit parinc.com/Remote Appointment Checklist.

# OVERVIEW OF THE IDENTI-FI REMOTE

This technical paper is a guide for administration and scoring of the Identi-Fi Remote. You should refer to the Identi-Fi Professional Manual (Reynolds & McCaffrey, 2020) for additional administration instructions and detailed scoring procedures. Overall, administration, scoring, and interpretation between the original and remote versions are fairly identical with the exception of method of administration (i.e., print vs. digital materials).

The Identi-Fi Remote is an individually and remotely administered test of visual organization and recognition appropriate for an array of purposes. It can be used when assessment of a client's visual organizational and visual processing skills is deemed useful or desirable. This may occur in many contexts, including the assessment of individuals with traumatic brain injury (TBI) and other forms of central nervous system (CNS) compromise or evaluation of reading disorders

when the clinician suspects the presence of visual perceptual or processing skill deficits that may adversely impact orthographic processing. It's also useful for monitoring recovery following a brain injury or other CNS compromise, whenever right hemisphere dysfunction or deficiencies are hypothesized, and when visual attention is an issue.

It is designed to be administered remotely and, like the print version, is appropriate for individuals ages 5 to 79 years. Identi-Fi print and remote versions are composed of two subtests—Visual Recognition (VR) and Visual Matching (VM)—the results of which combine to yield the Identi-Fi Visual Organization Index (VOI). Each subtest results in an age-adjusted T score; these are combined to obtain the Visual Organization Index (VOI), a single composite score that provides a summary estimate of visual organization skills as represented in cumulative performance on the two tasks of visual organization included in the Identi-Fi. Administration by a trained, experienced examiner requires approximately 10 minutes.

The Identi-Fi Remote is an ideal instrument for remote administration. PAR conducted an equivalency study between the paper-and-pencil and digital versions of the Identi-Fi (Reynolds et al., 2021). Results demonstrated there was no significant effect for administration procedure on the VR and VM subtests. As such, the formats are generally equivalent, and the same norms can be used. Based on the positive results of this study, and consistent with the literature on equivalency (see Meuhlhausen et al., 2015), the Identi-Fi Remote was developed.



#### TECHNICAL REQUIREMENTS

#### Hardware

Both you and your client will need a computer (laptop or desktop) or standard-size tablet with a minimum screen size of 9" and a webcam (built in or attached) to permit audio and video capabilities for two-way, real-time communication. Although laptops and tablets often have built-in microphones, it is recommended that you use headphones with an integrated microphone and a separate webcam device attached to your monitor when on a desktop computer. If the client has access to a smartphone, it could be used to verify their identity and the testing environment, but we do not recommend administering any performance-based test on a smartphone. For best results, we recommend using a desktop computer, laptop computer, or standard-size (not mini) Apple iPad or Android tablet. If tablets or laptops are used, make sure they are fully charged or plugged in at the start of the session. Make sure the auto-lock setting is set to "Never" so the screen does not lock or time out during testing.

#### Videoconferencing software

Videoconferencing technology with screen-sharing capabilities and the ability for the participant to use drawing tools on the device during screen sharing is necessary to administer the Identi-Fi Remote. The American Psychological Association (APA) recommends using a HIPAA-compliant videoconferencing platform offering secure, encrypted transmissions. The platform provider should be willing to sign a business associate agreement (BAA) developed either by the company or by the psychologist. We recommend you check with each platform provider to determine the specific tools and features available. Some platforms have different versions with different tools available to assist with remote administration.

#### **Internet access**

We recommend both you and your client use a secure and private internet (i.e., not publicly accessible) connection. Hardwiring via an Ethernet cable for internet access allows for the fastest and most stable connectivity. We also recommend that, while you administer the test, other individuals using the same internet connection refrain from using services that require considerable bandwidth (e.g., streaming video). If you choose to use Wi-Fi, we strongly recommend testing your connection while screen sharing before beginning a remote testing session.



#### **EXAMINER MATERIALS**

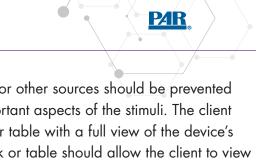
## **Examiner Materials for the Identi-Fi Remote**

- Identi-Fi Professional Manual. This manual provides comprehensive and detailed information about the Identi-Fi.
- Identi-Fi Remote e-Stimulus Book. This stimulus book is provided in an electronic format designed for remote administration and contains the Visual Recognition (VR) and Visual Matching (VM) subtests.
- Identi-Fi Remote Record Form. This paper-and-pencil form is designed for use with remote administration. It is used to record responses and for scoring.
- Writing implement. You'll need a pencil or pen to complete the record form during remote administration.
- **Timing device.** You'll need a stopwatch, smartphone timer, or tablet timer.

# SPECIAL CONSIDERATIONS FOR REMOTE ADMINISTRATION

The decision to remotely administer any assessment instrument depends on a variety of client and provider variables. Distractions may be present, the client may have access to various forms of assistance, and the presence of third parties—for example, facilitators (test proctors or administrative supports) and observers (interns and attorneys)—may be unavoidable. The accuracy of results may be influenced by the quality of the technology used, including the hardware specifications, the speed of the internet connection, and other technical factors. Finally, cultural differences with respect to technology, socioeconomic background, and familiarity with computers may also affect results. Therefore, clinical judgment should be used to determine the validity of obtained scores.

You must describe and disclose any modifications or alterations made to the standardization procedures and consider the impact of these differences on the reliability, validity, and interpretability of the client's test scores. These deviations must be noted in your reports. Please be aware of the scientific literature of the assessment, have familiarity



with relevant state laws and national practice standards, and abide by the guidance of APA and the American Telemedicine Association (Luxton et al., 2014). As always, your professional judgment, along with guidance from state, local, and other regulatory agencies, should determine whether you use available videoconferencing technology as part of your practice and if this mode of administration is appropriate for your client. For additional guidance on how you can use PAR products via telehealth technology, please visit parinc.com/Telehealth Statement.

#### Reporting telehealth assessment results

In your reporting, indicate whether the assessment was administered via telehealth. For example, "This assessment was conducted using audiovisual telehealth methods, including remote presentation of test instructions and stimuli and remote observation of performance." Record any technical issues or other problems that occurred during the assessment process, including loss of internet connection, video or audio lags, distractions, interruptions, and equipment malfunctions.

#### **Testing environment**

Ideally, the testing environment should be a comfortable, well-lit room with adequate ventilation. If possible, the room should be free of noise to minimize distractions. All other electronic devices should be turned off, and the testing area should be clear of all items except those needed to participate in the session. The source of lighting should be overhead to ensure maximum readability of the computer

screen. Glare from windows or other sources should be prevented because it may obscure important aspects of the stimuli. The client should be seated at a desk or table with a full view of the device's screen. The height of the desk or table should allow the client to view and point to the test stimuli with the drawing tool easily from their seat. All other objects on the desk or table should be removed, if possible, to avoid distracting the participant during testing.

During the remote administration, the participant should have only the videoconferencing platform open on their computer. All other computer windows and applications should be closed.

In most cases, only you and the client should be present during the remote administration session of the Identi-Fi Remote. No other individuals should be present unless an observer or another facilitator is necessary. For clients younger than 10 years, one adult may be present to proctor the session. This proctor will ensure the participant is set up with the necessary materials and technology to participate in the session. If the proctor remains in the room during the session, they cannot provide any assistance to the client and will need to sit behind the client and in full view of the examiner in order to be consistent with standardization procedures.

The client's activity should be closely monitored, and any attempts to seek outside assistance, including opening additional computer windows to search for answers, should be stopped immediately and the test voided. If you fail to adhere to timing procedures, adequately monitor the client, or bar access to restricted items during test administration, the client's performance may be artificially enhanced.



### REMOTE ADMINISTRATION OF THE IDENTI-FI REMOTE

We strongly encourage you to review this procedure and test your setup with a remote videoconferencing platform prior to meeting with a client.

#### Steps

- Position your paper Identi-Fi Remote Record Form and timing device so they are out of the client's view.
- Open and then minimize the Identi-Fi Remote e-Stimulus Book on your device so you can easily access it during testing.
- Ensure your remote setup is working properly and your client is ready to begin remote administration (see <u>Testing Environment section</u> for more information).
- 4 Launch your selected videoconferencing platform and start the meeting with your client.
- 5 Complete and verify the demographic information on the paper record form.

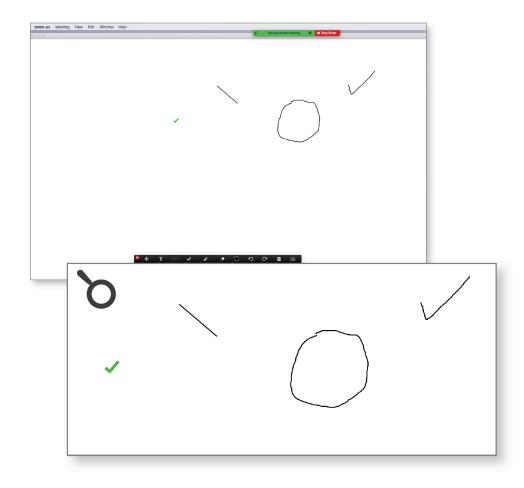
- 6 Share your screen with your client. If it's possible with your chosen videoconferencing platform, allow the individual to see only the relevant window you've chosen to share.
- Share a whiteboard application with your client, if one is available through your chosen videoconferencing platform. If not, share a blank Microsoft Word, Notepad, or Notes document.
- Instruct the client to annotate on-screen using a drawing tool (see <u>Figure 1</u>). The drawing tool provides an option for the client to "mark" their selections on-screen during the VM subtest in lieu of providing a verbal response.
  - a. Drawing tools may be platform-specific and may include pencils, markers, and stamps. If it's available, a check mark is a good option to use.
  - b. The client should practice making lines, check marks, and circles on-screen and then erasing/undoing and clearing them.
  - c. There should be an option in the videoconferencing platform to allow you to stop annotation and erase annotation, as needed.

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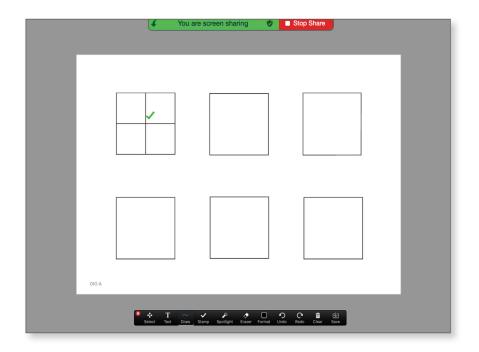
- d. Practice until the client feels comfortable with the drawing tool. The client can have flexibility in choosing the drawing tool and mark they prefer to make on items as long as it's easily visible to you. Identify and agree on the mark that will count during testing (see Figure 2).
- e. Do not use a "mouse over" option in lieu of a drawing tool. Clients may be able to turn pages with a mouse over option, and this option does not work on tablets.
- Begin testing your client and adhere to the instructions in the record form and professional manual. Follow the subtest-specific remote administration guidelines that follow, and record all responses on the paper record form. (See <u>Table 1.1</u> for a summary.)
  - **a. Visual Recognition (VR).** On your computer/tablet, open the Identi-Fi Remote e-Stimulus Book to the sample item. Share your screen and follow the instructions in the record form.
  - **b. Visual Matching (VM).** On your computer/tablet, open the Identi-Fi Remote e-Stimulus Book to the sample item. Share your screen and follow the instructions in the record form. If needed, remind the client to point by using the drawing tool.
- Turn off screen sharing and proceed to the next part of your session.

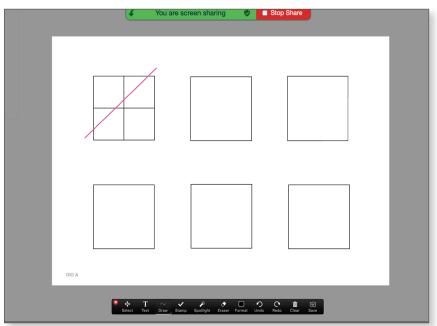
**Figure 1.**Example of using the drawing tool on a Zoom whiteboard.





**Figure 2.** Examples of using the Zoom drawing tool to mark items.







#### **SCORING OF THE IDENTI-FI REMOTE**

When your session has ended, complete scoring on the record form.

#### **Steps**

- Sum the raw VR scores and transfer the total score to the VR raw score box on page 1 of the record form.
- 2 Sum the raw VM scores and transfer the total score to the VM raw score box on page 1 of the record form.
- Obtain the age-adjusted *T* scores for the VR and VM subtests from Appendix B of the Identi-Fi Professional Manual and enter them in the corresponding boxes on the record form.
- Sum the VR and VM age-adjusted T scores to obtain the sum of T scores. Use Appendix C of the Identi-Fi Professional Manual to convert this to the VOI score.

# Table 1.1. Identi-Fi Remote: Administration Needs by Subtest

Subtest	Screen share	Drawing tool	e-Stimulus book	Start point in e-stimulus book
Visual Recognition (VR)	Yes	No	Yes	Example
Visual Matching (VM)	Yes	Yes	Yes	Example



#### **REFERENCES**

Luxton, D. D., Pruitt, L. D., & Osenbach, J. E. (2014). Best practices for remote psychological assessment via telehealth technologies. *Professional Psychology: Research and Practice, 45*(1), 27–35. <a href="https://doi.org/10.1037/a0034547">https://doi.org/10.1037/a0034547</a>

Muehlhausen, W., Doll, H., Quadri, N., Fordham, B., O'Donohoe, P., Dogar, N., & Wild, D. J. (2015). Equivalence of electronic and paper administration of patient-reported outcome measures: A systematic review and meta-analysis of studies conducted between 2007 and 2013. Health and Quality of Life Outcomes, 13, 167. https://hqlo.biomedcentral.com/articles/10.1186/s12955-015-0362-x

Reynolds, C. R., & McCaffrey, R. J. (2020). *Identi-Fi: A Test of Visual Organization and Recognition: Professional manual.* PAR.

Reynolds, C. R., McCaffrey, R. J., & Champ Morera, C. (2021). Equivalence of online remote versus traditional in-person administration of the Identi-Fi: A Test of Visual Organization and Recognition [white paper]. https://www.parinc.com/Portals/0/Webuploads/samplerpts/IdentiFi%20Whitepaper.pdf





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