

Remote, Online Administration of Psychoeducational Assessments

A Research-based Solution Addresses a Persistent Service Gap in Schools Nationwide

by Stephanie Taylor, Ed.S., NCSP



Despite best efforts, many students are not being assessed in a timely manner and, as a result, fail to receive appropriate supports mandated by law.

The Challenge: A National Shortage of School Psychologists

Many educational organizations struggle to serve the special needs of their students—particularly providing timely evaluations for students referred for possible eligibility for special education, 504 plans, and interventions. Whether caused by regional staffing shortages, growing volume, seasonal spikes in student referrals, or other complications schools face while managing their student support programs, the result is the same: despite best efforts, many students are not being assessed in a timely manner and educators are not receiving the data they need to support educational planning.

Common school challenges:

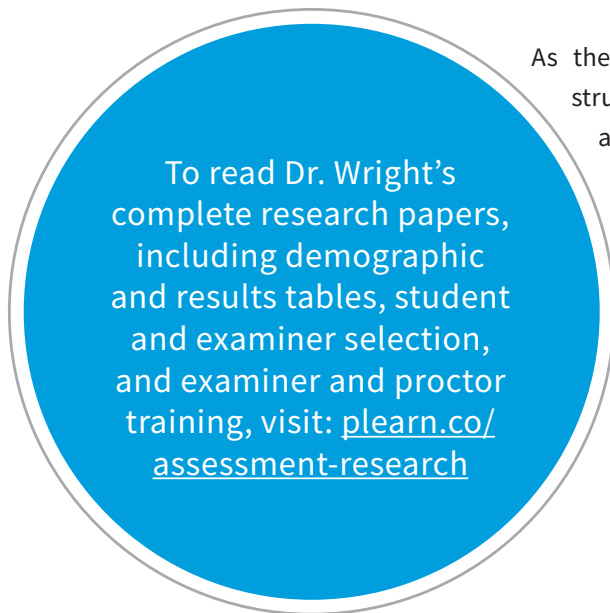
- Staffing shortages—open positions
- Staff covering multiple schools—scheduling and transportation issues
- Student absences
- Seasonal variations in referral volume that are too much for otherwise sufficient staff
- Acute crises that take precedence: behavioral issues, mental health crises, crisis interventions, and so on
- Difficulty contacting parents and teachers to collect relevant student data

Schools face a particular challenge regarding school psychologists. The National Association for School Psychologists (NASP) recommends one school psychologist for every 400-700 students while the reality is that there is typically one school psychologist for every 1,653 students, with some areas exceeding the recommended ratio by up to 10 times.

NASP has projected that the national shortage of almost 9,000 school psychologists in 2010 would grow to 20,000 by 2020. While educational organizations want to do the right thing, their school psychologists are simply overwhelmed by the demands for testing and interventions. As a result, only 1 in 5 children in need of mental health services actually receive the needed services according to estimates by Children’s Defense Fund.^{1 2 3}

The reason for the shortage is two-fold: In some states, there is an insufficient supply of certified or licensed school psychologists and many must spend most of their time assessing students. That prevents them from using their full range of skills in counseling, data analysis, and systems change, as well as preventing bullying, suicide, and violence.

“The role gets way more narrow, and their skill set is not utilized as effectively,” says Eric Rossen, director of professional development and standards at the National Association of School Psychologists (NASP). “What’s concerning is that it is not a cost-effective model. Being able to apply prevention services will reduce the need for more intensive services later on.” [*District Administration*, 1/29/2015 “Psychological Stress on Schools”]



As the number of school psychologists shrinks, many districts struggle simply to meet compliance requirements—sometimes at the expense of providing broader services that help the general population of students and overall school climate. Relieving overburdened school psychologists from exclusively focusing on testing would give them more time to address student behavior, mental health, and school climate issues.

¹ Children’s Defense Fund Mental Health Fact Sheet “Despite high rates of mental illness in children, 4 out of 5 children ages 6 to 17 who have mental health problems do not receive any help.” <http://www.childrendefense.org/library/data/mental-health-factsheet.pdf>

² Department of Health and Human Services (U.S.). Mental health: a report of the Surgeon General. Washington: DHHS; 1999. <http://www.surgeongeneral.gov/library/mentalhealth/home.html>

³ Kataoka, S., et al. Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. *American Journal of Psychiatry*. 159(9). 1548-1555. 2002.

Can Remotely Delivered Assessments Effectively Relieve the Burden?

Remote, online assessments conducted live by fully credentialed professionals is not a new concept. “Teletherapy assessment,” as it is often called, has been occurring in the world of speech-language and occupational therapy since 2009. The American Speech-Language-Hearing Association (ASHA) and the American Occupational Therapy Association (AOTA) both support this method of assessment when done with fidelity.

While remote assessments have become more common for speech-language and occupational therapy students, it has taken longer to include psychoeducational assessments, as these tend to be more sensitive to administrative and environmental variance. Yet so much of a student’s future academic career rides on these assessments, and it is critical that they are conducted accurately—and in a timely manner. Could using online, remote administration be a viable solution for many schools?

Remotely delivered social-emotional and behavioral assessments—especially for students in virtual schools and in rural and remote locations—have become more prevalent over the last few years. Assessments that require rating scales and parent/teacher/caregiver interviews lend themselves nicely to the remote, online modality.

Remote assessments help schools complete assessments in a more timely manner by connecting students with a fully credentialed school psychologist. This means schools do not need to hire additional psychologists, but rather can take advantage of a distributed workforce to better manage efficiency. This further frees schools’ existing resources to focus on counseling, crisis management, bullying prevention, and other important programs.

NASP “Guidance for Delivery of School Psychological Telehealth Services”

In an August, 2017 paper, NASP lists the following potential telehealth benefits:

- Improved access to remote students and/or underserved populations
- Expanded counseling services
- Reduced travel times for clinical personnel
- Flexible assessments capabilities
- Improved clinical consultation
- Increased professional efficiency
- Expanded clinical supervision

NASP states that while directly addressing remote assessments delivered via telehealth, “telehealth allows for assessments to be conducted in multiple locations in a single day. This provides school psychologists with scheduling flexibility and also the opportunity to provide assessment services to students who may not have access to a licensed school psychologist.”

NASP goes on to say that school psychologists providing telehealth services should:

- Adhere to all professional ethics, standards, policies, and positions
- Become knowledgeable of and follow licensure and certification requirements
- Ensure access to high-quality technology
- Obtain appropriate professional development to ensure their own competence in the delivery of telehealth services
- Select and use validated assessment tools and methods
- Maintain thorough documentation and legal/professional record-keeping practices
- Ensure high degrees of privacy, confidentiality, informed consent, and security
- Consider whether telehealth services are safe, effective, and appropriate
- Ensure they have appropriate licensure/certification—and, if needed, liability insurance—to cover telehealth services

Research Studies Demonstrate Equivalency: A Summary

The adoption of psychoeducational assessments has been slow because this type of assessment tends to be layered and complex. As a result, it can be harder for special education leaders, clinicians, and parents of students with special needs to know if psychoeducational assessments are successful when conducted by a remote service provider.

In 2016, Dr. A. Jordan Wright—a researcher from Empire State College, SUNY—oversaw an equivalency study using the WJ IV cognitive and achievement batteries. In 2017, PAR conducted an equivalency study using the RIAS-2 cognitive battery. Both studies demonstrated equivalence to the in-person conducting of psychoeducational assessments.

Equivalency Study Designs

For each study, two groups of students of equal number—matched on age, gender, and other demographics—were created, with students randomly assigned to one of the two groups: either traditional (onsite) or online (remote). The samples size varied with 240 students in Dr. Wright’s study (ages 5-16), and 104 in the PAR study (ages 3-19).

Digitally Formatted Test Content

The publishers of each assessment permitted the digitization of the complete contents of the stimulus books. For the WJ IV, audio files were embedded into a secure online testing environment to ensure high audio quality and ease of use by the examiner. Student booklets were retained in their hard copy format and sent to each student.

Technology Setup

Each remote assessment used an internet-connected computer with two high-resolution digital cameras: a computer-mounted web-camera focused on the student throughout the test, and a computer-connected document camera located beside the student to enable remote examiners’ real-time observation of student work in the response book (writing, pencil grip, etc.).

The Procedure

Each student participant was randomly assigned to either the traditional, in-person test format or the remote, online administration test format—with the requirement that the cases

within each age-by-gender “cell” be divided equally between the formats. All administrations (in both formats) occurred in the child’s school, and all examiners administered cases using both formats. In the case of the RIAS-2, students were also matched on cognitive functioning, utilizing many pairs of twins.

The Results Demonstrate Equivalence

The individual research summaries show the means and standard deviations of scores based on indices and individual tests for each testing format—and for the sample as a whole. Given the close similarity of demographic characteristics and the balancing by age and gender for the two groups—with random assignment—there would be no expectation of large or systematic differences in scores between the groups.

Woodcock-Johnson IV

No index or test had either a significant (at the $p < .05$ level) difference between administrations, or an effect size of administration format that exceeded the pre-established criterion of 0.20. Therefore, there does not seem to be a statistically significant effect of the online, remote administration format on the scores of children.

Both significance tests (p values of t -tests) and Cohen’s d were calculated to determine equivalence. The standards of $p \geq .05$ and $d < 0.2$ were used as the standard for equivalence. Cohen’s d is calculated as the difference between mean scores on the two different administration formats, divided by the pooled standard deviation of scores.

Reynolds Intellectual Assessment Scales, Second Version

For the four core RIAS-2 subtests (which constitute the CIX) and the memory subtests (which constitute the CMX), there was no significant effect for administration procedure. As such, the formats are generally equivalent, and the same norms can be used. Across all ages, for school psychologists who only administer the core four subtests or those plus the memory subtests, the administration procedures can be used interchangeably.

For those children aged seven and older, the two administration methods did not exhibit significant differences for the speeded processing tasks. As with the other subtests on the RIAS-2, for children aged seven and older, the two administration procedures are comparable and the original norms can be used.

The present study suggests that the test—when given in the remote, online format (in the specified, faithful procedure specifically evaluated in this study)—is generally considered equivalent and can use the norms of the traditional test. However, it is recommended that for children under seven years of age, the speeded tasks (which are supplemental) should not be administered in this format.

What This Means for Schools

These studies have identified a very specific set of protocols for delivering remote, online administration of cognitive and achievement test batteries. The generalization of any findings should be limited to trained test administrators who follow the specific protocol examined. Following is a list of criteria necessary to reproduce the procedure with fidelity.

Digital Platform Requirements

- The assessment content must be properly licensed from the publisher for digital use and presented via a secure, online testing environment (as opposed to holding test pages/materials up to a digital camera or some other process). *PresenceLearning is the only company authorized by Houghton Mifflin Harcourt and PAR Publishing to administer the Woodcock-Johnson IV and Reynolds Intellectual Assessment Scales assessments online, respectively.*
- Any audio portions of a test must run through the platform to ensure clarity and quality, as opposed to playing audio on the remote examiner's side and having a microphone pick it up for the student to hear. *PresenceLearning integrated the proprietary WJ IV audio test materials to be played seamlessly by the examiner and heard with high fidelity by the student.*
- The video platform should correctly present any images so materials held up for the student to review are not seen backwards. *PresenceLearning engineered the testing environment so that all materials for the WJ IV and RIAS-2 display correctly and are not shown as backward mirror images.*
- The student should have a screen at least 15" wide with a separate mouse (rather than a trackpad or a built-in laptop pad), and the computer display must have at least 800 x 600 pixels of resolution quality on both monitors; optimally, resolution quality should be at least 1920 x 1080. *PresenceLearning provides complete specifications and technical support for equipment set-up.*

This live, online modality can be used to address problems from staffing shortages to referral spikes to medical/family leaves—providing schools with a convenient testing option previously unavailable to them.

The Conclusion: WJ IV & RIAS-2 Tests Administered Remotely, with Fidelity, Offer Schools Expanded Capacity for Psychoeducational Assessments

What do the results of these studies mean for schools? Based on the results of these equivalency studies, the remote administration of cognitive ability and academic achievement assessments by remote examiners—utilizing this methodology—is a viable way for all schools to expand their psychoeducational assessment capacity. This modality is used to address problems from staffing shortages to referral spikes to medical/family leaves, providing schools with a testing option previously unavailable to them.

The field of remote assessments will continue to expand as more publishers, different types of assessments, and various administration methods follow these equivalency studies.

Too many students receive delayed services, too many school psychologists burn out from endless testing, and too many schools need more options for providing student assessments. Remote, online administration of psychoeducational assessments can help today's students achieve their academic goals—and succeed in life.



About the Author

Stephanie Taylor, Ed.S, NCSP

Stephanie Taylor has been involved in special education since 2002 as a teacher, a school psychologist, an administrator, and then with the state department of education. She is currently the Director of Behavioral & Mental Health Services and Psychoeducational Assessments at PresenceLearning.

About PresenceLearning

PresenceLearning (www.presencelearning.com) is the leading telehealth network of providers of clinical services and assessments to educational organizations. The PresenceLearning care network has provided over two million sessions of live, online speech-language therapy, occupational therapy, behavioral interventions and mental health services, diagnostic services and assessments, and early childhood services for children with special needs.

[Get a Consultation](#)