

Online Language Assessment of School-Age Students

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The purpose of this tutorial is to guide speech-language pathologists in conducting speech and language evaluations remotely. Practical considerations, such as setting up the testing environment and the importance of conducting a pre-evaluation check, are discussed. Different item types and assessments are discussed with consideration of the technology requirements for different tools. Issues such as testing fidelity when remotely administering assessments that were normed with in-person testing and ways to use standardized tools in nonstandardized ways are addressed. The benefits of remote testing are discussed. **Key words:** *ASHA Code of Ethics, IDEA, schools, telepractice*

IN MARCH of 2020 when the COVID-19 pandemic shut down schools and clinics in the United States (and beyond), we all had to scramble to figure out how to do our jobs differently. Although some speech-language pathologists (SLPs) had already embraced teletherapy and remote evaluations, the majority of us had never spent much time at all thinking about doing our jobs remotely.

As SLPs who primarily conduct bilingual speech-language evaluations, my colleagues and I quickly set out to determine how to conduct an evaluation remotely. It was a learning process, and we made a lot of mistakes along the way. People were forgiving though and appreciative that we were able to continue to serve individuals remotely.

In this tutorial, I discuss the many considerations we all have to take into account when testing school-age students remotely. Although remote testing does not work for every client, we can make confident diagnostic

decisions for the vast majority of the individuals we test. Using evidence-based practice, which includes clinical expertise, we are able to conduct assessments that yield reliable and valid results. In this tutorial, I share a case study of a student from a diverse language background that illustrates the process of conducting an online evaluation.

LANGUAGE EVALUATIONS FOR SCHOOL-AGE CHILDREN

Before addressing the topic of remote evaluations, I first discuss best practices for conducting a language evaluation for a school-age child. When we set out to understand whether a student has a language disorder or not, we need to gather information from a number of sources to make accurate diagnostic decisions (Eichstadt, 2016). The Individuals with Disabilities Education Act (IDEA, 2004) recommends that comprehensive language assessments include information from multiple sources. No single piece of information is sufficient to diagnose a student with a language impairment. We need to know how the student communicates with family and friends, how they communicate in the classroom, and the concerns of parents, teachers, and others who interact regularly with the child. An important part of understanding how a child communicates is by observing them in the classroom

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Dr Ellen Stubbe Kester disclosed that the Difference or Disorder book is mentioned in the article and that she receives royalties from book sales.

Author disclosures can be found at <http://links.lww.com/TLD/A83>.

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DOI: 10.1097/TLD.0000000000000281

and with peers in diverse social settings (e.g., playground, lunchroom). In addition to reported information and observations, we need to elicit additional information. We use assessment tools, such as norm-referenced and criterion-referenced tests, to gather language functioning data. We also want to gather information using nonstandardized assessment measures such as conversational samples, narrative samples, and other types of language samples. Reading and writing skills also are frequently a part of a school-age language evaluation. Once we have used our initial measures, we can determine what skills appear to be within the normal range for the child we are testing and what is in a range suggestive of impairment. For any areas that are not within normal limits, we have to be able to rule out lack of understanding of the task or lack of experience with the topic or familiarity with the content. To do this, we need to provide a learning opportunity. We select areas of need, teach the content, and retest to see whether the child is able to quickly gain assessed skills or not. This dynamic assessment approach allows us to look at learning potential and to rule out poor performance that may result from inexperience.

With reported information, observational data, elicited standardized responses, elicited nonstandardized responses, and dynamic assessment, we get converging evidence to make an informed clinical decision about the presence or absence of a language disorder. Now, let us consider this approach shifted to a remote format.

TESTING FIDELITY FOR REMOTE ASSESSMENTS

In the early part of the pandemic, many school districts across the United States stopped conducting speech and language evaluations (Bamberger et al., 2020). There were concerns about whether we could accurately assess speech and language skills online. Testing fidelity, or the extent to which an assessment was used as designed, was a big concern. Here are some of the questions that were asked:

- To what extent can testing tools be used as they were designed if we are administering them online?
- Can we still use normative comparisons if tests were not normed for a remote format?
- What if the test administration does not go smoothly and we feel like it is not appropriate to use the normative data?

We reached out to several experts in the field of assessment, including Dr. Elizabeth Peña, lead author of the Bilingual English-Spanish Assessment (BESA; Peña et al., 2018), Dr. Elizabeth Allen, Director of Research and Development at Pro-Ed, Inc., and Nancy Castilleja, Senior Project Manager at Pearson, to get their input. Among them, there was consensus on the following points: (1) tests should never be used in isolation; (2) portions of tests can be used even if the entire test cannot; (3) we cannot afford to put testing on hold indefinitely; and (4) research shows minimal discrepancies between in-person and online testing. Their responses are summarized below; the interested reader can find a more in-depth discussion on these topics and links to the video interviews at <https://leader.pubs.asha.org/doi/10.1044/leader.SCM.25062020.36> (Kester, 2020).

Tests are never used in isolation

We never use standardized tests as the sole piece of information in making diagnostic decisions. This is no different in remote testing. We look for a convergence of evidence to support our decisions. No single test score ever translates to a diagnostic decision.

Portions of tests can be used even if the entire test cannot

As one test developer, Nancy Castilleja of Pearson, said, “It’s not all or nothing” (N. Castilleja, personal communication, August 11, 2020). Tests can be used to gather qualitative information even when scores cannot be used. If we use a test and find that some items did not translate well from in-person to remote administration, that discovery should influence the process of clinical

decision-making. For example, if we need to remove an item because it does not work in remote format, we know that the student will have fewer opportunities to earn points on the test. Technically speaking, the scores are no longer valid. But let us say that even without the point from the item, the student's score still fell well within the normal range for his age. Although we would not report his scores, we do still have good information to help inform our diagnostic decision.

We cannot afford to put testing on hold

Even under normal circumstances, children often have to wait weeks or months to get a speech-language evaluation. Given what we know about the benefits of early intervention (Schwarz & Nippold, 2002), we know that the earlier we get started with intervention, the better. School evaluations are guided by IDEA (2004) and there are legal timelines (Yell & Drasgow, 2007) that need to be followed. Putting testing on hold results in missed timelines and backlogs of individuals who need speech and language assessments and possibly violations of due process.

There are studies that show minimal discrepancy between remote and in-person testing

Dr. Elizabeth Allen and her team at Pro-Ed, Inc., conducted internal studies in 2011 looking at remote versus in-person testing. They found unappreciable differences between the two types of testing. Dr. Allen noted that in their study, the individuals had to complete the tasks with different input modalities (print vs. screen) and different output modalities (paper vs. screen), and the results were still very consistent. She posited that for speech and language tests that are conducted verbally with the support of pictures, remote testing and in-person testing are even more similar than for tests that involve different input and output modalities and thus even fewer differences would be expected. For a more detailed discussion, see Kester (2020) in the ASHA LeaderLive.

Pratt et al. (2022) conducted a proof-of-concept study to test the feasibility of using assessment tools that were created for in-person testing in a remote setting. They explored performance on a variety of testing tools and tasks and found a significant positive association between performance for in-person and virtual conditions. Similar to the findings of Allen (2011), these findings indicate minimal differences between in-person and remote testing results. Furthermore, Waite et al. (2010) explored results of the Clinical Evaluation of Language Fundamentals—4th edition (CELF-4; Semel et al., 2003) administered in both face-to-face and online settings and found no significant differences between raw scores or scaled scores for each subtest. Their results supported the validity and reliability of administering and scoring the core language subtests of the CELF-4 via telehealth administration.

To summarize what our experts shared, we *can* use testing tools that were designed to be used in person for our remote evaluations, but we need to make sure to adhere to best practice and gather information from multiple sources. We need to use other information, such as parent and teacher report, and performance on nonstandardized assessment tasks to inform our diagnostic decisions.

HOW DO WE GET SET UP TO CONDUCT AN ASSESSMENT REMOTELY?

How do we conduct a language assessment remotely?

Let us start with the basics:

- You need to be able to see and hear the individual you are assessing.
- The individual you are assessing needs to be able to see and hear you.
- The individual you are assessing needs to be able to see any testing materials that support the testing items.
- You need to be able to see the individual interact with the testing materials for

items that require pointing or selection of pictures.

Select your platform

There are many different remote meeting platforms available to support telehealth assessments, and more are being created and introduced in the marketplace regularly. Although a review of all of the options is beyond the scope of this article, there are features that are necessary to conduct a language evaluation remotely, including screen sharing to share testing materials available in digital form, compatibility with a document camera (or extra smartphone) to share paper materials, and the ability to connect to a tablet to share its screen. Furthermore, it is critical that the platform you select complies with the regulations applicable to your setting, such as HIPAA or FERPA, in order to maintain the confidentiality and privacy of your client or student.

Will you use digital testing materials or paper testing materials?

Many publishers have created electronic versions of their tests. Early in the pandemic, Pro-Ed, Inc., worked with the company Red Hat to create digital versions of many of their tests including standardized assessments of language, such as the Test of Language Development—Primary (Newcomer & Hammill, 2019) and the Test of Language Development—Intermediate (Hammill & Newcomer, 2020), as well as social pragmatic tests such as the Social Language Development Test—Elementary (Bowers et al., 2008). Other publishers have moved in the direction of creating digital versions of their tools as well. Pearson offers a number of assessment tools through its Q-Global and Q-Interactive systems, including the CELF family of tests (Semel, Wiig, Secord, & Langdon, 2006; Wiig, Semel, & Secord, 2006; Wiig et al., 2013, 2020). The Test of Language and Literacy Skills (TILLS; Nelson et al., 2016) also is now available in digital format as the TeleTILLS, which provides an avenue for online assessment of reading and writing as

well as oral language. Digital versions allow examiners to share their screen with the individuals they are evaluating, so the examinee is able to see the examiner's face and the shared materials at the same time.

Test publishers do not permit testing materials to be digitized by individuals and displayed directly on the screen, but paper tests can still be used for testing in a remote format by using a second camera. A tabletop tripod works well to hold a smartphone or tablet device to show the stimulus manual. This is the view the examinee will see. The tripod can be placed across the table from the examiner (where the examinee would be seated if the testing was taking place in person) and pointed toward the stimulus manual. Most remote meeting software programs allow the host to highlight a frame, so the participants see a larger version of its contents. When the test manual is highlighted, the examinee will see a large image of what the test camera is projecting and smaller images of the examinee and the examiner.

Considerations for collecting test responses

The language tests that SLPs use are made up of many different types of items. It is important to consider how each type of item will work in the remote format. During testing, an item can be administered verbally without any corresponding visual material, verbally with a picture stimulus, or verbally with manipulatives. Responses to the test questions can be verbal or require pointing to a picture or pictures on a page, require using manipulatives, or any combination of these.

Setup of testing equipment will vary depending on the different types of questions and expected responses contained in the tests. At a minimum, two cameras are required. At a maximum, four cameras are required. As noted in Table 1 and illustrated in Figures 1 and 2, when two cameras are required on the examiner's side, one is the camera on the computer that shows the examiner's face and the second is a smartphone or tablet device that is logged into the

Table 1. Item administration and response requirements

Item Administration Requirements	Cameras Needed	Item Response Requirements	Cameras Needed
Verbal prompt	⊗	Verbal response	⊗
Verbal prompt + Picture stimulus	⊗ ⊗	Verbal response + Point to picture(s)	⊗ ⊗
Verbal prompt + Manipulatives	⊗ ⊗	Verbal response + Use of manipulatives	⊗ ⊗

videoconferencing session separately and placed on a tripod to show the testing materials such as a book, stimulus book, or manipulatives. When two cameras are required on the examinee’s side, one is the camera on the computer showing the examinee’s face and the other is a smartphone or tablet logged into the videoconferencing session separately that is on a tripod allowing the examiner to view the examinee interacting with the stimulus materials or pictures on the screen. It is necessary to mute and turn the volume to zero for the extra camera in each location as there could be auditory feedback or echoing. If there is not a second camera available at the examinee’s location, there are two other ways to carry out the assessment: (a) use screen annotation tools or (b) have a proctor with the individual who can either record the response or tell you what was selected or pointed to by the child.

Using screen annotation tools

Annotation tools can be used to number items, circle, or otherwise mark a desired choice. If screen annotation tools will be used, the examinee should be trained on the use of the tools prior to the testing session. Annotation tools can be difficult to use with a mouse pad and may not work for test items that require the examinee to point to multiple things in a certain order. Be aware that some devices do not support the use of screen annotation. For example, at the beginning of the pandemic, one of the school districts we worked with used Zoom and Chromebooks, and the Zoom annotation tools could not be accessed by those using Chromebooks. Other concerns include ease of access. Difficulty with remote mouse control was noted by Pratt et al. (2022) in their study comparing in-person and virtual assessments. Specifically,



Figure 1. Tablet on tripod for remote testing. This figure is available in color online (www.topicsinlanguage disorders.com).



Figure 2. Smartphone on tripod for remote testing. This figure is available in color online (www.topicsinlanguage disorders.com).

they noted that many of the younger children in their study, who ranged from 4 to 8 years of age, required adult assistance to make selections on the screen. Older students in their study did not have these same difficulties.

Working with a proctor

If a proctor is present with the examinee, the examiner and the proctor should meet in advance of the evaluation to discuss how the proctor will support the examinee. Some methods used include the following: The proctor can have a testing protocol and mark the examinee's responses on the form; the proctor can use a thumbs up or thumbs down (preferably out of the child's view so as not to inadvertently reinforce a specific response) to let the examiner know whether the examinee got an item correct or not; or the proctor can describe what the examinee did. For example, on an item that requires the child to point to things in a certain order, the proctor can say, "He pointed to the red circle, then the blue square, then the yellow rectangle." Some important considerations for the proctor include reminders not to prompt the student to select a particular answer and to place themselves in such a way that they are not a distraction to the student and that they do not interfere with the student's view of the testing materials. The use of a clipboard is beneficial if the proctor is recording responses, so the student does not see what is recorded on the test protocol. Examiners should be aware that the use of a proctor can introduce increased bias into the assessment process. For example, parents or family members may act in a way that they believe would benefit their child. Untrained proctors may autocorrect for the student or provide additional contextual information that inappropriately benefits the student.

Test items with manipulatives

Some of the tests we use include manipulatives such as blocks, cups, balls, cars, and pencils. Gather the items and take a photograph to send to the family or proctor in advance of the evaluation, so they can gather

what is needed. If there are any that require two people to pass items back and forth (e.g., "Give me the rest of the blocks."), the parent or proctor can administer that item or you can modify the item (e.g., "Give mom the rest of the blocks."). If you modify an item, make a note of it in the report and be sure that you do not modify the item so that it does not test what it is intended to test. The modification just mentioned would be acceptable if the item was intended to measure the quantitative concept "rest" (i.e., remainder) but not if it was measuring an understanding of pronouns ("me").

What if the family or school does not have the exact same manipulatives?

The manipulatives do not have to be exactly the same as long as they are similar enough to what is intended to be tested. This was a frequent question that SLPs had as they began doing remote testing. Nancy Castilleja, Senior Product Manager at Pearson, shared in personal communication (April 2020) that the Preschool Language Scale-5 (PLS-5) was normed with different manipulatives from the ones that were in the final testing kit. As long as the manipulatives are recognizable (e.g., a cup, a ball, a block), this does not present a problem. If it is necessary to change a word because a particular item was not available to the examinee, make a note of it in your report and be mindful that it does not alter the purpose of the item.

Test items with storybooks

Collecting a language sample using a storybook also can be done with a paper copy or a digital version of the book. If you are using a paper copy, use a document camera or your phone or tablet device to show the pages of the book in the same way you would to show your test stimulus book. You will need to turn the pages for the examinee and you can establish a signaling system for the child to indicate when he wants you to turn the page (e.g., hold your index finger up, say "next page"). If you are using a digital version of a book, you will share your screen with the examinee. Systematic Analysis of

Language Transcripts (SALT) software now has an online story elicitation program that includes many different digital books, including the Mercer Mayer wordless picture books that many SLPs use to gather narrative samples. SALT software provides an option for you to submit the student's recorded story online to be transcribed and sent back to you. You also can transcribe as the child tells the story and/or record the story and finalize the transcription afterwards. If you are already recording your entire session, you do not need to do anything additional to record the language sample.

Expository discourse sampling

Research has shed light on the importance of sampling expository discourse, which provides factual descriptions or explanations of events, as a part of the language evaluation process (Westerveld & Moran, 2011). This type of language sample provides information about a child's ability to use complex language structures (Nippold et al., 2005). One benefit is that it is easily implemented in a telehealth assessment because it does not necessarily require visual aids or other test materials. One common approach to expository discourse sampling is to ask your student to tell you about their favorite game and then ask them to tell you how it is played. This allows the examiner to evaluate the student's ability to organize and relay a series of steps and details.

Evaluating reading and writing skills

Assessment of reading and writing skills has become an increasingly important part of the school-age language assessment. The strong correlation between oral language and written language has been well documented (Berninger & Abbott, 2010; Shanahan, 2016; Spencer & Petersen, 2018). Similar to oral language, these skills can be addressed using both formal, standardized tests and nonstandardized measures. The TILLS (Nelson et al., 2016) has been digitized as the TeleTILLS, which provides an avenue for online assessment of reading and writing skills.

Pre-evaluation check

It is vital to schedule a pre-evaluation check to make sure that your technology works and that you and your client have everything you need to successfully complete a remote evaluation. If you are testing a child, it is not necessary for the child to be present for the check; it can be done by a proctor or parent. During this pre-evaluation session, ensure the following:

- You can see and hear the examinee (or the examinee's stand-in for the check).
- The examinee can see and hear you.
- The examinee can see your test materials.
- You can see the examinee interact with test materials.
- The examinee knows how to use the annotation tools (if you are using them).
- The examinee has all of the necessary manipulatives.
- The proctor or parent knows which items with which they will assist.
- The proctor and the examiner have a system for gathering and sharing information.

CONSIDERATIONS FOR TESTING INDIVIDUALS FROM DIVERSE CULTURAL AND LINGUISTIC BACKGROUNDS

Understand the structures, features, and sound systems of the language or dialect of the examinee

New census data indicate that the cultural makeup of the United States is diversifying faster than predicted (Frey, 2020). Assessing individuals who are from cultural and linguistic backgrounds that are different from that of the examiner's and different from those that make up the norming samples for tests brings an added challenge. Whether we are conducting an evaluation with a student from a rural or urban area who speaks a dialect that is different from our own dialect or whether testing a student who speaks a language other than English as their primary language, we need to be aware of the differences between Mainstream American English

or Standardized American English and those dialects or languages. Without understanding the structures, features, and sound systems of the dialects and languages, we cannot adequately make diagnostic decisions (Kester, 2014; Oetting, 2018).

Nonstandardized assessment measures are a critical part of a speech–language evaluation for a student from a diverse background, as well as fundamental to best practice for language evaluations in general. The analysis of a language sample of a student who speaks two languages or two dialects has an added level of complexity as compared with that of a sample from a monolingual student who speaks Mainstream American English. It is important to consider how two languages or dialects interact and influence each other.

Using a difference or disorder approach, we analyze patterns in the student's language sample that do not adhere to the rules of the language they are using. If the pattern they are using can be explained by the structure or rules of their primary language or dialect, we can consider the pattern a difference and not a disorder. For a more detailed discussion about evaluating whether language patterns are due to influence from another language or due to language disorder, see Kester (2020) and Laing and Kamhi (2003).

CASE STUDY: SPANISH–ENGLISH-SPEAKING 5-YEAR-OLD'S REMOTE EVALUATION

Jonathan is a 5-year, 9-month-old boy who has grown up in a bilingual family in a multilingual community. Spanish is his mother's first language, Malayalam is his father's first language, and the family lives in a community in which English is the primary language spoken but Mandarin also is spoken. At home, Jonathan's mother speaks to him in Costa Rican Spanish most of the time and English some of the time. His father speaks English with him. Jonathan has two older siblings who speak English most of the time and Spanish some of the time. Jonathan is in a school in which English is the primary language of instruction. Jonathan has received some, but

minimal, exposure to Mandarin at school. Language history indicated that Jonathan was exposed to English approximately 65%–70% of the time, Spanish 30%–35% of the time, and Mandarin less than 5% of the time.

Jonathan was referred by his teacher, who was concerned about his ability to express his ideas clearly. She also noted concerns about his phonological awareness skills, early reading skills, and spelling skills. His parents reported that he has difficulty speaking in complete sentences in both Spanish and English and noted that he often switches between English and Spanish within sentences. His mother reported that his language skills seem behind those of his older siblings when at the same age.

The plan for the evaluation was based on his language history, age, and parent and teacher concerns. The Preschool Language Scale-5–Spanish (PLS-5–Spanish) is a bilingual tool for children from birth up to 8 years of age that is administered first in Spanish and then missed items are administered in English. Responses are accepted in both languages. It is normed on children from Spanish-speaking homes living in the United States. The CELF-5–English was administered by a SLP at Jonathan's school a month before the bilingual evaluation was requested. Qualitative information from that test administration was used to provide information about his skills in English. However, scores were not reported because the test was not normed on Spanish–English bilingual children. In addition to the administration of this test, a language sample using the Mercer Meyer frog books and a conversational language sample would be collected. Once these assessments were administered, a plan for dynamic assessment would be made if necessary.

The family was asked about access to technology. In addition to the computer that Jonathan would use for testing, they had a tablet and a tripod that could be used to allow the examiner to see what Jonathan was pointing to on the screen. The paper-based version of the test was selected for use. The examiner sent a picture of the manipulatives

to the family, so they could gather those before testing. A trial session was scheduled prior to Jonathan’s evaluation session to ensure that the equipment worked and was set up properly.

The setup included Jonathan sitting in front of a laptop at a desk. To the right side of him, approximately 2 ft behind him, was a tripod with the tablet attached to permit the examiner to see Jonathan pointing to items on the laptop and working with the manipulatives from the test kit. The results of formal testing using the PLS-5-Spanish were as follows:

Subtests	Standard Score	
	[90% Confidence Interval]	Percentile Rank
Auditory Comprehension	118 [111, 123]	50th
Expressive Communication	No scores reported (see the following text)	

Scores from the Expressive Communication portion of this test are not reported because not all items could be administered in the virtual format. Furthermore, item analysis uncovered a discrepancy between Jonathan’s language content, which was relatively high, and his language form, which was low. Together, these yield a score, which could mask his difficulties in language form in English and Spanish. Once the formal testing was completed, Jonathan told a story using the wordless picture book. He first did this in Spanish and then in English. The following patterns were noted in his Spanish language sample:

- difficulty with vocabulary;
- frequent interjections and revisions;
- use of English carrier phrase “and then” mixed between Spanish phrases;
- difficulty with article-noun agreement (e.g., *la niño, un mamá*);
- difficulty with subject-verb agreement (e.g., “*El niño y el perro se rió.*”); and
- use of simple sentences and compound sentences, but no complex sentences.

Any patterns during the English story tell that could be explained by Spanish-influenced English (SIE) are marked with “SIE” in parentheses. The following patterns were noted:

- overregularization of past tense verbs (e.g., *sleeped*) (SIE);
- difficulty with vocabulary (e.g., *beehole* for *beehive*; *horns* for *antlers*; *floor* for *ground*) (SIE);
- longer utterances than in Spanish but still limited complexity for his age;
- use of simple and compound sentences and one complex sentence; and
- difficulty with present versus past tense (SIE).

Next, Jonathan was asked to answer a variety of *who, what, when, where, and why* questions about the story. He correctly answered 21/21 story comprehension questions. This, paired with his receptive language score on the PLS-5-Spanish of 118 and no reported concerns about receptive language skills, indicated receptive language skills that were within normal limits. In the area of expressive language skills, Jonathan’s limited complexity was a concern and this was targeted for dynamic assessment. After a short teaching session on complex sentences, and a practice session creating complex sentences out of the multiple simple sentences that he produced in his stories, he was asked to retell the story again and “connect the ideas” with words such as “because” and “so.” His use of complex sentences did not improve after the teaching session.

The following information all supported a diagnosis of expressive language disorder:

- Parent concern about his ability to express himself.
- Teacher concerns about his ability to express his ideas in class.
- Errors on the English formal test that could not be explained by SIE patterns.
- Errors on the Spanish test that could not be explained by English-influenced Spanish patterns.
- Errors in Spanish and English language samples that were not patterns of influence from the other language and were

consistent with the errors on formal testing tools.

- Limited progress during dynamic assessment.

On the basis of this information, the following “Expressive Language” section was included in the assessment report:

Expressive language

Jonathan demonstrated an expressive language disorder in the area of language form. Standard scores are not reported because of the virtual format of the testing, which did not allow for all types of items to be administered. Qualitative information from English and Spanish formal testing as well as language samples in English and Spanish informed the results of this evaluation. Jonathan’s performance on nonstandardized assessment measures was consistent with his performance on formal assessments and was indicative of expressive language skills that were below average for a child of his age. Dynamic assessment results supported these findings. Overall, the conclusions of this evaluation were consistent with parent and teacher concerns, which included difficulty speaking in full sentences and difficulty expressing ideas.

Relative strengths in Jonathan’s expressive language skills were noted in the area of language content. He was able to tell how objects are used, complete analogies, name categories given the objects in them, repair semantic absurdities, complete similes, describe similarities, use quantitative concepts, and use time/sequence concepts. In a narrative context, he often demonstrated appropriate word use, switching between languages to find the word he wanted to use, which is a typical pattern for bilingual children. He was able to describe the general sequence of events in a story, as noted in the transcripts of his language sample.

Difficulty in Jonathan’s expressive language skills was noted in the area of language form. When asked to formulate sentences using a given word or phrase to describe a picture, Jonathan had difficulty formulating complete

sentences. Examples of his sentences in English included, “The car, she, the tree, wait, the car, and then the walk.” This same difficulty was seen in his formulation of sentences in both English and Spanish when telling stories. When asked to recall sentences that were read aloud, Jonathan did not correctly recall compound or complex sentences that included coordinating conjunctions, adverbial clauses, and relative clauses. On formal testing tasks, he exhibited difficulty with plural forms in both English and Spanish, number and gender agreement in Spanish, interrogatives in both languages, and the use of the subjunctive form in Spanish. Jonathan also demonstrated difficulty with grammatical structures in his stories in English and Spanish. Although some of his patterns could be attributed to influence from one language on the other, some of his error patterns could not be accounted for by language influence.

Patterns that are consistent with SIE include the following:

- Present tense instead of past tense:
 - There’s the nighttime (It was nighttime).
 - And then the dog run (ran) over to the window.
 - And then the dog make (made) the home of the bees fall.
- Overregularization of past tense verbs:
 - The boy slepted.
- Verb-person errors in Spanish
 - Y la niño y el perro se escuchó (escucharon) la rana.
 - El niño y el perro se rió (rieron)
- Verb-person errors in English
 - And then in the morning the dog and the boy was (were) going to find the frog.

Patterns that are not typical for a Spanish-English dual-language learner include the following:

- Article-noun disagreement (una perro, la niño, un roca).
- Number disagreement (la abejas, un bebé ranas).
- Past participle for the preterite (se ido for se fue).

- Difficulty with plural subjects (e.g., “Y el niño buscaba la rana y el perro buscaba la rana” instead of “Y el niño y la rana buscaban la rana.”).
- Revisions mid-sentence: Y la niño fue a un árbol in the (abandoned utterance) estaba viendo a donde está la rana.
- Incomplete sentences: El niño y el perro se rió y la rana.
- Difficulty producing complex sentences.

Dynamic assessment focused on producing complex sentences. A story was modeled that incorporated multiple complex sentences. Jonathan was asked to retell the story after listening to the narrator tell the story with complex sentences using words such as “because,” “so,” and “instead.” Following the story in which multiple complex sentences were modeled, Jonathan did not use any complex sentences. He did increase his compound sentences (sentences that use “and,” “but,” and “or”), but he did not use any complex sentences. Children his age typically use complex sentences regularly in their storytelling.

This case study illustrates the use of standardized tools in a remote testing session and the modifications and limitations in reporting scores that can happen as a result of testing in the remote format. Despite the fact that expressive language scores could not be reported for English or Spanish, it was still possible to gather the necessary information to confidently diagnose an expressive language disorder.

WHAT TO INCLUDE IN YOUR EVALUATION REPORT

Describing remote assessment procedures in your report

It is important to include in your report information about how the assessment session was conducted. Important elements to include are as follows:

1. Stating that the assessment was completed remotely.

2. State location of the examinee (home, school, ...).
3. State who was with the examinee (parent, proctor, ...).
4. State the conditions of the testing environment (e.g., quiet, noisy).
5. State what platform was used.
6. State that the examiner and the examinee were able to see and hear each other.
7. State the types of tools used (e.g., digital, paper, a combination).
8. If paper tests were used, state that they were shown with an additional camera.
9. State whether headphones or microphones were used.

Example paragraph describing a remote speech–language assessment

Following is an example of how this information might appear in an evaluation report:

The speech–language assessment was conducted remotely, with the examinee participating from his home and the examinee’s parent present during the evaluation. The full view of the faces of the examiner and the examinee were available. Audio quality and volume were sufficient for both parties to easily hear each other. The evaluation was conducted on the Zoom platform using the cameras on the examiner’s and examinee’s computers, in addition to a tablet on a tripod used to display the test stimulus manual on Zoom and a phone on a tripod showing the examinee and the test easel that allowed the examiner to see how the examinee responded. A storybook activity was conducted using a digital book shared on the Zoom platform. The assessment session was recorded, so the examiner could transcribe language samples later.

Describe item modifications

There are times when an item needs to be modified to better fit the remote testing format. As the examiner, it is important to consider the purpose of the item in your

modification and be sure that your modification does not change the meaning of the item. For example, if you are attempting to test the examinee's knowledge of the concept of size, changing the objects is acceptable if you can still measure the concept of size. If specific vocabulary is targeted, then changing the objects would not allow you to maintain the integrity of the item. When modifications are made, state in the report what the modification was and whether you felt it had any impact on the intent of the item. For instance, "Item 7 was modified to use 'doll' instead of 'bear' because the family did not have a toy bear available."

Can we still use the scores?

The question of whether or not we can still use test scores is an important one. As you can see from the aforementioned case study, the answer is "yes" and "no." Sometimes it is perfectly acceptable to use the scores, and the research discussed earlier supports the use of scores for tests that can be administered effectively in a remote format. If, however, there are items that cannot be administered, then the scores are not valid because the full assessment could not be administered and the scoring guidelines could not be followed. That does not mean that the entire assessment task is useless though. Qualitative information can be gathered from the test administration and used effectively to make diagnostic decisions. If modifications are minor, such as having the child select a picture by saying a number rather than pointing to a picture, then use of the scores is still appropriate.

PRACTICAL BENEFITS OF REMOTE SPEECH-LANGUAGE EVALUATIONS

A silver lining in the midst of the pandemic has been the discovery of the benefits

of remote testing. Consider individuals in remote areas who are now able to access services that were not previously available to them. Furthermore, remote evaluations could save rural school districts money. Some rural districts must contract for speech-language pathology services from nearby cities because local services are not available. Remote evaluations can reduce expenses associated with long travel times when services are contracted outside of the local area. Another benefit is that when children need an SLP with clinical expertise in a specific area (e.g., childhood apraxia of speech or velopharyngeal insufficiency), they have a higher likelihood of accessing those services when the burden of travel is eliminated.

Another unexpected benefit is the convenience of telepractice for busy families who previously would have additional challenges with attending an in-person evaluation. For parents working remotely, if their child is old enough, they could get them setup online to complete an evaluation while the parents continue to perform their job. This reduces the need for families to take time off work, which is a challenge for families with children who have special needs.

Conducting online assessments has a promising future. There are many teletherapy companies that are enhancing the technology and tools we can use in conducting remote assessments, including Presence Learning, Speech Therapy AI, and Verge Learning. Also, continued research will further define important parameters for telepractice assessments. Continued studies about the use of paper-based assessments used in remote format will provide important information for how we can effectively use these tools in the online assessment environment. We were forced to broaden our approach by a pandemic, and we will take what we have learned into the future of our field.

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