The Standard Score is Just the Tip of the Iceberg: Validating Your Data in the Assessment of English Learners (Day 1)

04/27/2022
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About Me

- Bilingual School Psychologist for -21 years (Southern California)
- Associate Professor/Program Director-14 years (Cal Baptist University)
- Clinical Manager - Bilingual Therapies (5 years)
- Private Practice–14 years
- My philosophy of practice is informed by clinical practice and personal experience as a former EL and child of immigrants growing up along the southwest border (San Diego, CA)

Agenda

Day 1 (04/24/2022)

- What Do Standard Scores Tell Us?
- What Are Some of the Challenges in Assessing English Learners?
- What Factors Should be Considered When Validating Cognitive Assessment Data when Assessing English Language Learners?

Day 2 (05/04/2022): 12:30 PM (PST)/2:30 PM (CST)/3:30 PM (EST)

Our problems are not with the data, itself, but arise from our interpretation of the data

Bruce H Lipton
PICTUREQUOTES.com

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Slide 5

1. What Do Standard Scores Tell Us?

What is a Standard Score?

- A normalized metric tells us where a score lies relative to the mean (how far above/below the mean).

- As school psychologists/educators, standard scores help us make educational decisions about students.

LOW PERPORMERS   AVERAGE PERFOPMERS   HIGH PERPORMERS
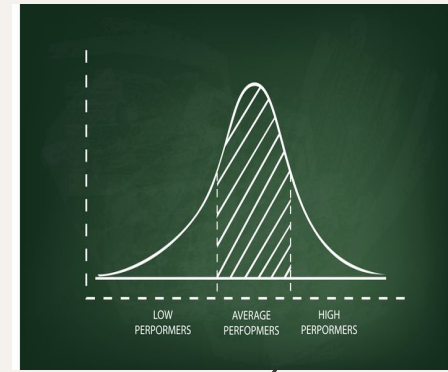
What Do These Scores Tell and Don't Tell Us?

What Standard Scores Tell Us:
1. Standard scores tell us where the individual lies relative to a population with similar characteristics (age/grade).

What Standard Scores Don't Tell Us:
1. Contextual (environmental, personal, and emotional) conditions in which these scores occurred.
2. Cultural and linguistic conditions that influenced these scores.
3. Whether the child made progress from the last time they were tested.

Standard Scores of the Tip of the Iceberg

As educators, we need to provide a story and narrative to the context surrounding the outcome (score) rather than allowing the score to tell the story.
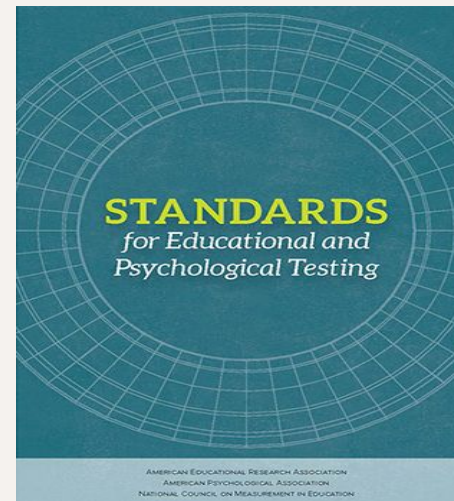
2. What Are Some of the Challenges in Assessing English Learners?

Review of the Literature

Regarding assessment tools commonly used with English learners:

STANDARDS
for Educational and Psychological Testing

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION
AMERICAN PSYCHOLOGICAL ASSOCIATION
NATIONAL COUNCIL ON MEASUREMENT IN EDUCATION

"For all test takers, any test that employs language is, in part, a measure of their language skills. This is of particular concern for test takers whose first language is not the language of the test. ***Test use with individuals who have not sufficiently acquired the language of the test may introduce construct-irrelevant components to the testing process.*** In such instances, test results may not reflect accurately the qualities and competencies intended to be measured." (1999, p. 91)

Review of the Literature

Regarding language proficiency demands embedded in non-language proficiency assessments:

Review of Research in Education

AERA
AMERICAN EDUCATIONAL RESEARCH ASSOCIATION
FOUNDED 1916

5.179 Impact Factor
5-Year Impact Factor 6.481
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Promoting Validity in the Assessment of English Learners
Stephen G. Sireci, Molly Faulkner-Bond
First Published March 1, 2015 | Research Article | Check for updates
https://doi.org/10.3102/0091732X14557003
Article information ⌄

Altmetric 0

"As the academic construct targeted by a test departs from ELP [English Language Proficiency], proficiency in English changes along a continuum from relevant to irrelevant, and can be a potential source of bias."

Review of the Literature

Regarding the diversity of individual experiences within the English learner subgroup:

Understanding Language | Language, Literacy, and Learning in the Content Areas

Issues and Opportunities in Improving the Quality of Large Scale Assessment Systems for English Language Learners

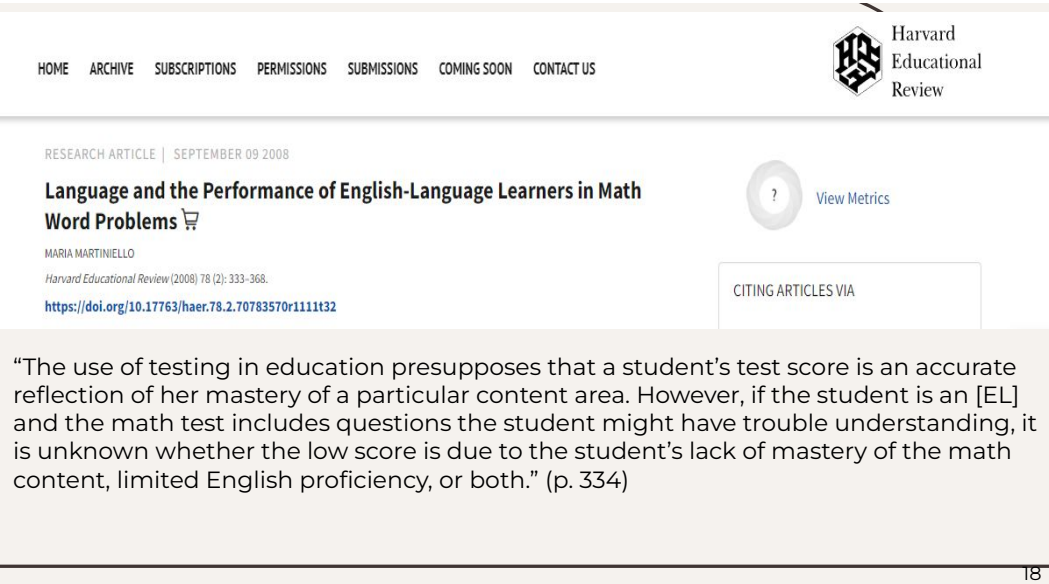Jamal Abedi, *University of California, Davis*
Robert Linquanti, *WestEd*

"While assessment and accountability systems usually treat the ELL category as binary (a student is ELL or not), ELLs are very diverse and exhibit a wide range of language and academic competencies, both in English and their primary language" (2012, p. 1).

Review of the Literature

Concerning **construct irrelevant variance** (outside, uncontrolled variables that affect assessment outcomes):
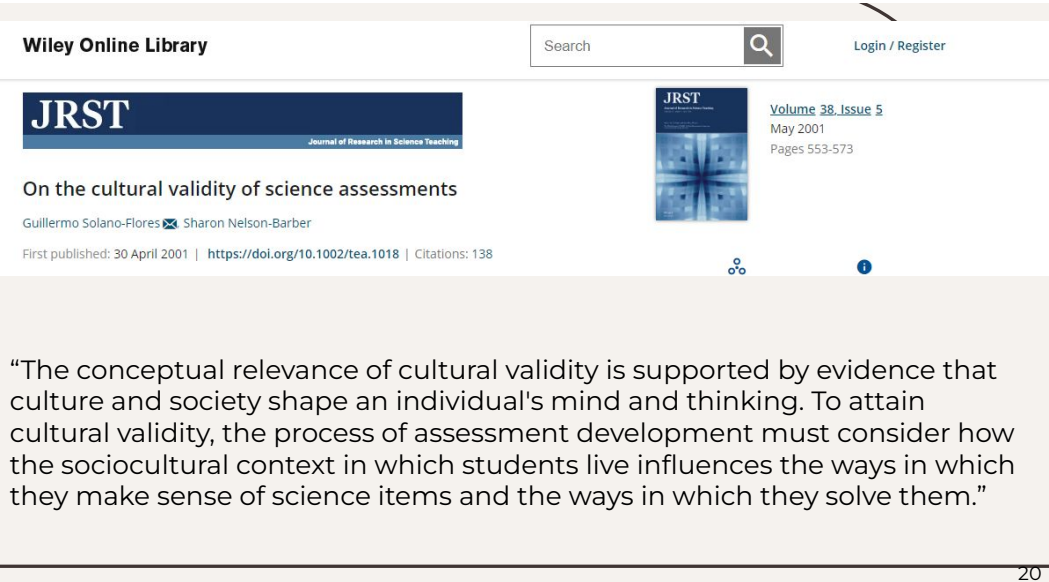
"The use of testing in education presupposes that a student's test score is an accurate reflection of her mastery of a particular content area. However, if the student is an [EL] and the math test includes questions the student might have trouble understanding, it is unknown whether the low score is due to the student's lack of mastery of the math content, limited English proficiency, or both." (p. 334)

Review of the Literature

Concerning cultural validity and its relationship to the assessment:

"The conceptual relevance of cultural validity is supported by evidence that culture and society shape an individual's mind and thinking. To attain cultural validity, the process of assessment development must consider how the sociocultural context in which students live influences the ways in which they make sense of science items and the ways in which they solve them."

Practical Points To Consider When Assessing English Learners:

Practical Points To Consider When Assessing English Learners

1. English learners are bilingual students.
2. Achieving full proficiency in a language takes 7-10 years w/ appropriate supports. Lack of adequate progress in acquiring English is not always a sign of disability.
3. For the most part, traditional classrooms in the United States assume full English proficiency.
4. Most standardized tests were normed on monolingual populations.
5. Basic Interpersonal Communication Skills (BICS) is not the same as Cognitive Academic Language Proficiency (CALP).
6. Disabilities are evident in the primary (L1) and second languages (English).
7. ELs were especially impacted by COVID-19 (learning loss).

What Factors Should Be Considered When Validating Cognitive Assessment Data When Testing English Learners?

Data Validation- The process of ensuring the accuracy and quality of the data for educational decision-making.

Key Factors to Consider in Validating Assessment Data

1. Thorough Investigation of Context and Background Information
2. Analysis of Language of Instruction and Academic Supports
3. Analysis of Evidenced-based Interventions (linguistically-appropriate)
4. Assessment of Progress Relative to Similar Peers
5. Assessment of Language Proficiency and Dominance
6. Selection of culturally and linguistically appropriate tools and procedures that will help you answer the referral question
7. Consideration of Acculturation Factors (Cultural Validity)
8. Incorporation of Accommodations (test-publishers)

Key Factors to Consider in Validating Assessment Data

1. Thorough Investigation of Context and Background Information

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- Develop-school collaboration/relationships
- Disabilities can be genetic
- Disabilities can be detected early on (before schooling)
- Understand linguistic and acculturation patterns
- Understand diagnosis(es) in home country
- Sets the foundation for diagnosis/eligibility

Key Factors to Consider in Validating Assessment Data

1. **Developmental/Background Information**
   a. History of disabilities in the family
   b. Perinatal concerns
   c. Developmental milestones (abnormal concerns)
      i. Cognitive
      ii. Social-emotional
      iii. Speech and Language
      iv. Fine and gross motor
   d. Medical conditions
   e. Accidents
   f. Acculturation/Language spoken in home
   g. Impact of COVID-19 on the family

WJ IV INTERPRETATION AND INSTRUCTIONAL INTERVENTIONS PROGRAM

Parent's Checklist: Preschool Age

Woodcock Johnson IV
ECAD™

Child's Name (Last) _____ (First) _____ Date _____

Respondent's Name (Last) _____ (First) _____

Preferred Form of Address: ❏ Mr. ❏ Mrs. ❏ Ms. ❏ Miss

Relationship:
- ❏ 1. Mother
- ❏ 2. Father
- ❏ 3. Guardian
- ❏ 4. Stepmother
- ❏ 5. Stepfather
- ❏ 6. Grandmother
- ❏ 7. Grandfather
- ❏ 8. Sister
- ❏ 9. Brother
- ❏ 10. Aunt
- ❏ 11. Uncle
- ❏ 12. Other (specify) _____

WJ IV INTERPRETATION AND INSTRUCTIONAL INTERVENTIONS PROGRAM

Formulario para padres: Edad preescolar

Woodcock Johnson IV
ECAD™

Nombre del niño/a (Apellido) _____ (Nombre) _____ Fecha _____

Nombre del responsable (Apellido) _____ (Nombre) _____

Tratamiento: ❏ Sr. ❏ Sra. ❏ Srta.

Vínculo:
- ❏ 1. Madre
- ❏ 2. Padre
- ❏ 3. Tutor/a
- ❏ 4. Madrastra
- ❏ 5. Padrastro
- ❏ 6. Abuela
- ❏ 7. Abuelo
- ❏ 8. Hermana
- ❏ 9. Hermano
- ❏ 10. Tía
- ❏ 11. Tío
- ❏ 12. Otro (especificar) _____

WJ IV INTERPRETATION AND INSTRUCTIONAL INTERVENTIONS PROGRAM

Parent's Checklist: School Age

Woodcock Johnson IV   Woodcock Johnson IV
ECAD™

Child's Name (Last) _____ (First) _____ Date _____

Respondent's Name (Last) _____ (First) _____

Preferred Form of Address: ❏ Mr. ❏ Mrs. ❏ Ms. ❏ Miss

Relationship:
- ❏ 1. Mother
- ❏ 2. Father
- ❏ 3. Guardian
- ❏ 4. Stepmother
- ❏ 5. Stepfather
- ❏ 6. Grandmother
- ❏ 7. Grandfather
- ❏ 8. Sister
- ❏ 9. Brother
- ❏ 10. Aunt
- ❏ 11. Uncle
- ❏ 12. Other (specify) _____

WJ IV INTERPRETATION AND INSTRUCTIONAL INTERVENTIONS PROGRAM

Formulario para padres: Edad escolar

Woodcock Johnson IV   Woodcock Johnson IV
ECAD™

Nombre del niño/a (Apellido) _____ (Nombre) _____ Fecha _____

Nombre del responsable (Apellido) _____ (Nombre) _____

Tratamiento: ❏ Sr. ❏ Sra. ❏ Srta.

Vínculo:
- ❏ 1. Madre
- ❏ 2. Padre
- ❏ 3. Tutor/a
- ❏ 4. Madrastra
- ❏ 5. Padrastro
- ❏ 6. Abuela
- ❏ 7. Abuelo
- ❏ 8. Hermana
- ❏ 9. Hermano
- ❏ 10. Tía
- ❏ 11. Tío
- ❏ 12. Otro (especificar) _____

Key Factors to Consider in Validating Assessment Data

2. Analysis of Language of Instruction and Academic Supports

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- We need to understand if the appropriate support has been in place to develop proficiency and academic language.
- Does the student's language proficiency align with the demands of the curriculum?
- It helps the examiner determine if academic/cognitive testing would be appropriate in the native (or English) language.
- Has the student been exposed to the constructs embedded in our testing?
- History of schooling in the native country.

Type of Program	Typical Child	Language of Instruction	Societal and Education Aim	Language Outcome
IMMERSION (from schools with majority language students seeking to learn minority language)	Language *Majority*	Bilingual (emphasis on second language)	Pluralism and Enrichment	Bilingualism and Biliteracy
MAINTENENCE/HERITAGE (for schools with recent immigrant language groups or indigenous groups)	Language *Minority*	Bilingual (emphasis on first language)	Maintenance, Pluralism and Enrichment	Bilingualism and Biliteracy
DUAL LANGUAGE (for schools with equal numbers of majority and minority language students)	*Majority & Minority*	Minority and Majority	Maintenance, Pluralism and Enrichment	Bilingualism and Biliteracy
MAINSTREAM BILINGUAL (for schools with majority language students seeking instruction in two or more majority languages)	Language *Majority*	Two Majority Languages	Maintenance, Biliteracy and Enrichment	Bilingualism

https://ped3102bilingual.wordpress.com/

English learner program models

PROGRAM MODEL	DEFINITION	DESCRIPTION & STRUCTURE	GOAL
ELD Push-In *Also known as co-teaching*	Provides ELD instruction in the student's content area classroom.	ELD push-in typically happens in the student's content area classroom. Push-in ELD teachers usually support the classroom teacher, often working only with English learner students.	Provide ELD through instruction; push-in ELD provides integrated academic language support directly linked to content area studies.
ELD Pull-Out	Provides ELD instruction outside the mainstream classroom and for a specific block of time. In this model, an English learner student spends part of the day in the mainstream classroom and is "pulled out" for ELD instruction. The model is more common in elementary schools with a low concentration of English learners.	English learner students are pulled out of their classroom to attend a daily block of time that is devoted to targeted, intensive ELD. Pull-out ELD must occur at a time when core instruction is not taking place in students' regularly scheduled classes.	Provide ELD in homogeneous groups, typically by grade and language proficiency level. Students miss some part of the school day to receive services.
ELD Class Period	Provides ELD instruction during a designated class period that may carry course credit. This arrangement is more common in middle schools and high schools and is occasionally used in elementary schools that have block scheduling.	English learner students attend a dedicated class period for ELD.	Provide ELD, usually by grouping students by grade and language proficiency level.

https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/relnw-072518.pdf

Key Factors to Consider in Validating Assessment Data

3. Analysis of Evidenced-based Interventions (linguistically-appropriate)

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- Required by the IDEA.
- Increases academic/behavioral/social-emotional outcomes.
- Interventions are structured, monitored, and adjusted according to student needs.
- Can be used to rule in/out disabilities.
- Can determine progress relative to peers.
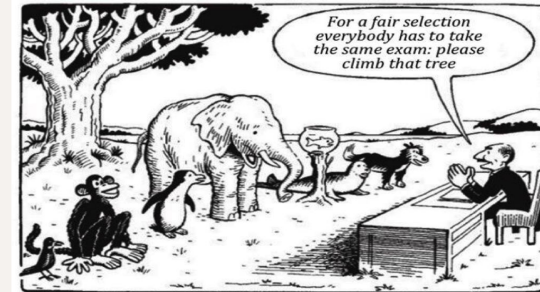- Have interventions been escalated to account for COVID-19 learning loss?

Key Factors to Consider in Validating Assessment Data

4. Assessment of Progress Relative to Similar Peers

Key Factors to Consider in Validating Assessment Data

For a fair selection everybody has to take the same exam: please climb that tree

Our Education System

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."

– Albert Einstein

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- Score outcomes are based on the normative sample that may not accurately represent the tested student (monolingual peers).
- Linguistic/cultural loading may affect test performance.
- Local norms on CBAs may give you another perspective of the child's performance.
- COVID-19 learning loss impact relative to similar peers.

Key Factors to Consider in Validating Assessment Data

5. Assessment of Language Proficiency and Dominance

Key Factors to Consider in Validating Assessment Data

Language Proficiency Data (Standardized Tools)

a. Woodcock Johnson IV Oral Language (WJ IV OL)
b. Woodcock-Muñoz Language Survey® III (WMLS™ III)- Includes an in-depth interview looking at language background, schooling, academic language exposure, and testing observations.

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- IDEA mandates that we assess the student in their native language.
- Children come from different linguistic backgrounds (400+ in the US.
- Construct irrelevant variance
- Different levels of language proficiency (not binary).
- Different levels of native language (not binary.
- Does the student have sufficient language proficiency to access the academic curriculum?
- Determine the best language to test the student.

Figure 3-2.
"Language Exposure and Use Questionnaire" from the Test Record.

Language Exposure Information

Years and months examinee has been in this country, if not born here: ___ years / ___ months

Years and months examinee has been exposed to English at school: ___ years / ___ months

Country in which examinee was born _____

Language Use Questionnaire

1. Language examinee first learned _____

HOW MUCH OF THE TIME (Check nearest percent)

	Less than 25%	25%	50%	75%	100%
2. Primary language examinee speaks at home	☐	☐	☐	☐	☐
Other languages	☐	☐	☐	☐	☐
3. Primary language others speak at home	☐	☐	☐	☐	☐
Other languages	☐	☐	☐	☐	☐
4. Primary language examinee speaks in informal social situations (playground, cafeteria, or on the street)	☐	☐	☐	☐	☐
Other languages	☐	☐	☐	☐	☐
5. Primary language examinee speaks in the classroom	☐	☐	☐	☐	☐
Other languages	☐	☐	☐	☐	☐

Additional language(s) information _____

Table 5-2.
CALP Levels and Corresponding Implications

	CALP Level	W Difference	RPI	Instructional Implications
6	Very Advanced	+31 and above	100/90	Extremely easy
5	Advanced	+14 to +30	98/90 to 100/90	Very easy
4–5 (4.5)	Fluent to Advanced	+7 to +13	95/90 to 98/90	Easy
4	Fluent	−6 to +6	82/90 to 95/90	Manageable
3–4 (3.5)	Limited to Fluent	−13 to −7	67/90 to 82/90	Difficult
3	Limited	−30 to −14	24/90 to 67/90	Very difficult
2	Very Limited	−50 to −31	3/90 to 24/90	Extremely difficult
1	Extremely Limited	−51 and below	0/90 to 3/90	Nearly impossible

Comparative Language Index (CLI): (WMLS II and WJ IV OL)

Figure 5-5.
Determining the Spanish/English Comparative Language Index for Jorge, a third-grade boy.

Spanish Oral Language Proficiency
RPI = **66** / 90

English Oral Language Proficiency
RPI = **15** / 90

Spanish/English CLI = 66 / 15
Comparative Language Index
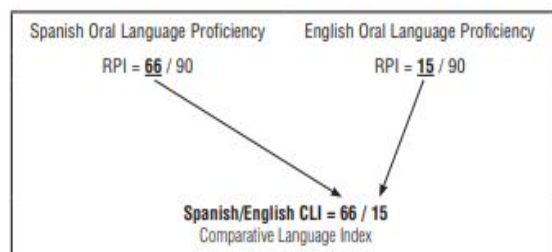
Woodcock-Muñoz
Language Survey III

WMLS™ III Assessment Service Bulletin Number 1

WMLS III: Comprehensive Assessment, Intervention, and Application

K R Duffy, MA, NCC

Tammy L. Stephens-Pisecco, PhD

Edward K. Schultz, PhD

Table 1-1.
WMLS III English Selective Testing Table

	Listening and Speaking					Reading and Writing						Cross-Domain Clusters		
	Listening	Speaking	Broad English Oral Language	Basic English Oral Language	Applied English Oral Language	Reading	Writing	Broad Reading and Writing	Basic Reading and Writing	Applied Reading and Writing	Comprehension	Broad English Language Ability	Basic English Language Ability	Applied English Language Ability
Test 1: Analogies	■		■	■								■	■	
Test 2: Oral Comprehension	■		■		■						■	■		■
Test 3: Picture Vocabulary		■	■	■								■	■	
Test 4: Oral Language Expression		■	■		■							■		■
Test 5: Letter-Word Identification						■		■	■			■	■	
Test 6: Passage Comprehension						■		■		■	■	■		■
Test 7: Dictation							■	■	■			■	■	
Test 8: Written Language Expression							■	■		■		■		■

Table 4.
WMLS III Language Proficiency Levels: Descriptions and Implications

Proficiency Level	W Difference Score Range	Likelihood of Examinee Success on Age- or Grade-Level Tasks	Description	Implications
Initial Development	−51 and below	0% to 3%	The individual is at the very beginning stages of learning academic language and displays minimal receptive and expressive language skills.	Significant supports are required at this point for learning to occur.
Early Development	−50 to −35	3% to 17%	The individual has progressed to the beginning phase of academic language learning. Although receptive and expressive language skills are still very limited, the individual is starting to use and understand words that are repeated regularly in a similar context. This stage is commonly associated with a skill level several years below that of native-language peers.	Substantial supports continue to be required for further learning to occur.
Continuing Development	−34 to −20	17% to 51%	The individual's skill level now reflects necessary conversational proficiency and basic understanding of academic language.	A moderate amount of support in the classroom remains needed to facilitate learning.
Emerging Proficiency	−19 to −11	51% to 74%	The individual has an understanding of the academic language utilized in an educational environment. Individuals at this stage often have a skill level near that of average native-language peers.	Instructional support continues to be beneficial to maximize learning.

Table 4. *(cont.)*
WMLS III Language Proficiency Levels: Descriptions and Implications

Proficiency Level	W Difference Score Range	Likelihood of Examinee Success on Age- or Grade-Level Tasks	Description	Implications
Proficient	−10 to +10	74% to 97%	The individual is achieving at a level comparable to that of average native-language peers and can effectively communicate and handle classroom tasks.	Typical educational interactions and instructions are understood without additional supports.
Advanced Proficient	+11 and above	97% to 100%	The individual has surpassed the proficiency of average native-language peers. All domains of language have been mastered, and complex analytical skills in reading, writing, listening, and speaking are dominant.	The individual is capable of full engagement in all educational contexts.

Key Factors to Consider in Validating Assessment Data

6. Selection of culturally and linguistically appropriate tools and procedures that will help you answer the referral question

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- Required by IDEA (non-discriminatory assessment).
- This will help answer the referral question.
- Decrease over/under-representation in SPED categories.
- Allows you to selectively choose tools that minimize cultural/linguistic loading.
- Select the tools that will "bring out the best" in students.

Key Factors to Consider in Validating Assessment Data

Culturally-Linguistically Fair Testing Procedures:

- Reflection on personal biases and their impact on data interpretation.
- Cultural Language Test Classifications (C-LTC) and Cultural Language Interpretive Matrix (C-LIM).
- Use of bilingual/bicultural school psychologists.
- Use of interpreters.
- Selection of non-verbal tests.
- Commitment to staying current with research, best assessment practices, and continual self-reflection.

Key Factors to Consider in Validating Assessment Data

7. Consideration of Acculturation Factors (Cultural Validity)

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- Decrease cultural bias in assessment tools and practices.
- Tests have assumptions and what children "should" know.
- Does acculturation limit exposure to test items?
- Assessment of cultural loading on the tests.
- Ensuring that our interpretation of outcomes (scores) is not influenced by our biases (cultural bias).

Key Factors to Consider in Validating Assessment Data

Sources of Acculturation (can include interactions with parents and students):

1. Timed tasks
2. Access to a CLD examiner
3. Communication styles (direct, contextual, tones, nonverbal, etc)
4. Rapport development
5. Exposure to test items
6. Immigrant status (time of arrival to the US)
7. Cultural conflict (parent-child)
8. Acculturation gaps (parent-child)
9. Groups versus individualism
10. Perception (interpretation) of disability
11. Perception of achievement
12. Acceptance of support from educators

Key Factors to Consider in Validating Assessment Data

Sources of Acculturation (cont'd)

Other sources of demonstrating abilities:

- Art projects
- Assembling and fixing things
- Games (chess, checkers, tic tac toe)
- Musical traditions
- Cooking (helping caretakers)
- Helping around the house/responsibilities
- Knowledge of family traditions, religion, and ancestors

Key Factors to Consider in Validating Assessment Data

8. Incorporation of Accommodations (test-publishers)

Key Factors to Consider in Validating Assessment Data

Why is this step so important?

- Guaranteed by IDEA/Section 504.
- Rule out factors attributed to cultural and linguistic loading.
- Test publishers recommend using accommodations on select test items for better accessibility and data interpretation.
- Helpful with differential diagnosis of the question of difference or disorder.
- Helps ensure test fairness.

Key Factors to Consider in Validating Assessment Data

1. Thorough Investigation of Context and Background Information
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The Standard Score is Just the Tip of the Iceberg: Validating Your Data in the Assessment of English Learners (Day 1)

04/27/2022
Dr. Pedro Olvera
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Agenda

Part 2: Choose Your Own Adventure: An EL Case Study on Data Validation and Interpretation
Date: 05/04/2022
Time: 12:30 PM (PST)/2:30 PM (CST)/3:30 PM (EST)
Agenda:
- Clinical applications of the data validation process to understand the language abilities of your student.
- Best practices for decision-making in the context of EL assessment.
- Construct a comprehensive view of student performance to inform recommendations and intervention.