Continuous immigration throughout the globe is reflected in a greater diversity of languages spoken in many communities throughout the United States and many other nations. As many as 200 different languages are spoken in Chicago alone, 140 in California, 80 in Palm Beach, 67 in Tempe, AZ, and 60 in Plano, TX.

School-aged children speaking a language other than English in the United States increased rapidly between 1979 and 2007, from 3.8 to 10.6 million. (National Center of Education

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**States with Highest Number of ELL Students 2009-2010**

Data obtained from NCES, Common Core of Data http://nces.ed.gov/ccd/bat/

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>ELL Enrollment</th>
<th>% of ELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>California</td>
<td>1,779,102</td>
<td>28.4</td>
</tr>
<tr>
<td>2</td>
<td>Texas</td>
<td>726,062</td>
<td>14.97</td>
</tr>
<tr>
<td>3</td>
<td>Florida</td>
<td>230,540</td>
<td>8.75</td>
</tr>
<tr>
<td>4</td>
<td>New York</td>
<td>200,805</td>
<td>7.26</td>
</tr>
<tr>
<td>5</td>
<td>Illinois</td>
<td>179,857</td>
<td>8.55</td>
</tr>
<tr>
<td>6</td>
<td>North Carolina</td>
<td>106,335</td>
<td>7.17</td>
</tr>
<tr>
<td>7</td>
<td>Colorado</td>
<td>95,141</td>
<td>11.43</td>
</tr>
<tr>
<td>8</td>
<td>Georgia</td>
<td>86,755</td>
<td>5.20</td>
</tr>
<tr>
<td>9</td>
<td>Virginia</td>
<td>86,751</td>
<td>6.97</td>
</tr>
<tr>
<td>10</td>
<td>Arizona</td>
<td>83,625</td>
<td>7.76</td>
</tr>
</tbody>
</table>

79% of those almost 11 million students were Spanish speakers and were considered to be English language learners (ELLs) (National Clearinghouse for English Language Acquisition, NCLEA, 2010)

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**Top 10 States with Highest Growing ELL Population from 1990 to 2010**

<table>
<thead>
<tr>
<th>States</th>
<th>% Change in ELL Enrollment from 1990 to 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevada*</td>
<td>398.2%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>395.2%</td>
</tr>
<tr>
<td>Georgia</td>
<td>378.8%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>311.5%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>281.4%</td>
</tr>
<tr>
<td>Nebraska*</td>
<td>242.2%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>237.2%</td>
</tr>
<tr>
<td>Utah</td>
<td>235.2%</td>
</tr>
<tr>
<td>Washington</td>
<td>209.7%</td>
</tr>
<tr>
<td>Alabama</td>
<td>202.1%</td>
</tr>
</tbody>
</table>

* Data obtained from NCES, Common Core of Data http://nces.ed.gov/ccd/bat/
Latinos are the largest linguistic ethnic minority group in the United States (Ramirez & de la Cruz, 2002). However, few assessment measures have been created/adapted for this Spanish-speaking population (Ardila, 2007; Echemendia & Harris, 2004).

The Latino population, already the nation's largest minority group, will triple in size and will account for most of the nation's population growth from 2005 through 2050. Hispanics will make up 30% of the U.S. population in 2050, compared with 14% in 2005.


Challenges

- Socio-demographic shift is creating unprecedented demands especially in states unprepared for the rapid growth
- Hispanics represent a heterogeneous population
- Trained psychologists who speak Spanish are sharply underrepresented
- Latino/Hispanic ELL students have the highest dropout rate in the nation (21% of Latino’s dropped out of school in 2007 – compared to whites 5% and blacks 8%)

Echemendia, Harris, Lengyel, Dus, & Reuser, 1995; Mezzich, Andia, 1999; Wilkin, et al., 2004; Welt, Aysegul, Acet, Dkalveren, & Turk, 2012

What to do?

1. Understand acculturation issues as they pertain to assessment.
2. Learn how bilingualism develops
   • Including known issues as it pertains to assessment.
3. Learn proper assessment techniques.

Acculturation focuses on the process of psychological change in values, beliefs, and behaviors when adapting to a new culture

- Influence of Acculturation on Psychotherapeutic work:
  • Family conflict
  • Unfamiliar with demands (e.g. Timed tests; retelling a story)
  • Testing materials (e.g. Bubbling in answers)
  • Unfamiliarity with stimulus (e.g. Memory test)
  • Conflict due to cultural identity
- No test is culture free, but attempts have been made to make measures culture fair.
Other Cultural Factors

- Role of family
  - Traditional Male/Female roles
- Individualism vs. Communalism
- Locus of Control
- Response to authority
  - Eye Contact
  - Aim to please
- Expected role of therapist
  - Cadence of Conversation
- Depth of disclosure
- Personal space

Assessing Acculturation

- Several measures of acculturation available
  - Common elements - preferred language & proficiency, social affiliation, cultural identity, community participation, pride, exposure, & preferences
- Time spent in the U.S., English fluency, generational status - correlated to performance
- Lack of contact with dominant culture

Acculturation & Education

(Strutt & Puente, 2015)

- Education contributes to acculturation
- Formal schooling - number of years
- Parental education, pre-school participation (e.g., Head Start programs), & quality of education significantly impact neurocognitive development

Determine acculturation

Informal Determination (con’t)

- Can also ask client:
  - In what way do your current problems create pain for you and your family?
  - How do members of your family express (add emotion here)?
  - What types of things make you feel that you are living your life to the fullest?

Determine acculturation

Informal Determination (con’t)

- Preferred Language (accent?)
- Where did they do their schooling?
- What is the racial make up of friends?
- Time in the USA

Summary

- Acculturation factors can unduly influence results from testing.
  - Efforts should be made to reduce the effects of these cultural factors (i.e. EDUCATE).
  - Poor test performance can be due to lack of experience.
  - Recognize that acculturation factors are what makes testing bilingual children “messy.”
- Educate supervisors that bilingual testing takes more time.
- All cultural factors can influence assessment at all tiers of RTI.
Bilingualism

Language Proficiency

- Has to do with the overall efficiency with which a language is used.
- Proficiency is developed differently for each element of a language.
  - reading, writing, comprehension, speaking, etc.
- Also known as Fluency

Over-representation of minority children in special education programs

Inappropriate referrals
Lack of bilingual support services
  - Bilingual education
  - English as a second language training
Cultural Factors
  - Child’s lack of experience with testing “scripts”
  - Response to intervention
  - Poor understanding of effects of bilingualism
  - Testing may be picking up language deficit rather than learning deficit.

Dual language proficiency

Continuum of proficiency of the bilingual child (Valdés & Figueroa, 1994):

A = first language
B = second language

Communication acts considered normal and appropriate for Sequential Learners

Arrest
Attrition (language loss, language forgetting)
Avoidance
Language alternation
  - Code mixing
  - Code switching
  - Borrowing

Language Proficiency

BICS vs. CALP

- Basic Interpersonal Communication Skills (BICS) are language skills needed in social situations. It is the day-to-day language needed to interact socially with other people.
- Cognitive Academic Language Proficiency (CALP) refers to formal academic learning. This includes listening, speaking, reading, and writing about subject area content material. This level of language learning is essential for students to succeed in school.
Communication acts considered normal and appropriate for Sequential Learners

Language non-use
• Nonverbal period
• Silent period
Over-generalization
• Pause phenomenon
• Dysfluency
Transfer

- If an assessor is not aware of these normal phenomena, they can mislabel an individual as language disordered.
- This is particularly important when assessing children during RTI screenings and assessments.

Acquiring more than one language...

• Is a lifelong complex task
• Much individual variation
• Developmental trajectory is not uniform (skills ebb and flow over time)
• Skills are used differently with different people, to accomplish different purposes and tasks
• Gains in receptive language precede expressive language
• Vocabulary learning does not always transfer

Determine Language Proficiency

How to measure CALP.

- Preschool Language Scale, 5ed (PLS-5)
  • Spanish and English Norms
  • Ages birth – 7:11
  • Screener available
- Clinical Evaluation of Language Fundamentals, (CELF; 4ed in Spanish; 5ed in English)
  • Spanish and English Norms
  • Ages 5:0 – 21:11
  • Screener available
- Woodcock-Muñoz Language Survey - III
  • Spanish or English
  • Ages 2:0 – 90+
  • Screener available
- Woodcock Language Proficiency Battery – R
  • English only
- Expressive Vocabulary Test, 2ed. (EVT-2)

- Bilingual Verbal Ability Tests – Normative Update (BVAT- NU)
  • Multiple languages, US norms
  • Measure of verbal ability; English Proficiency Score
- Peabody Picture Vocabulary Test – 4 (PPVT, English) / Test de Vocabulario en Imágenes Peabody (TVIP, Spanish)
  • Ages 2:6 – 17:11
**Test of English Language Learning (TELL)**

**What is TELL?**
- Digital language proficiency assessment tool.
  - Screen
  - Diagnose
  - Progress monitor

**Why use TELL?**
- Provides immediate detailed English proficiency performance data.
  - Four foundational skills:
    - Listening
    - Speaking
    - Reading
    - Writing

**Who uses TELL?**
- K-12 ELL students and their teachers and administrators

---

**Problematic Communication Behavior**

- **Difference**
  - Not speech/language impaired

- **Disorder**
  - Speech/language impaired

---

**Rule Out Before Diagnosing a Disorder or Impairment**

- **Uses of Language**
  - Does the culture use language differently (e.g. retelling a story)

- **Peer Comparison**
  - Is the child learning at the same rate as other students with similar experiential and linguistic backgrounds?
  - How about compared to siblings?
    - Use parent and teacher reports

---

**Rule Out Before Diagnosing a Disorder or Impairment**

- **Length of residence in the United States**
- **Have they had much time to acculturate?**
- **How much exposure to English?**
- **Have they attended school consistently?**

---

**Rule Out Before Diagnosing a Disorder or Impairment**

- **Health and Developmental Factors**
  - E.g. Developmental delays, malnutrition, vision, hearing, emotional handicaps.
  - Parents may also be good source of information.

- **Types of Bilingual program attended**
  - Did the child receive instruction in both languages?
  - What instructional modifications were made?
Principles to follow in determining difference vs. impairment

1. Consider source of information
   a. Is the informer culturally and linguistically competent?
   b. How well do they know the child?
   c. How well are they informed about assessment principles?
2. Use screeners and assessments for appropriate purposes.
3. Use culturally and linguistically appropriate measures.
4. Use more than one test whenever possible.
   • Use formal and informal testing.
5. Impairment should be evident in both languages.
6. Pattern of impairment in each language is similar to that of monolinguals.
7. Do not use standardized tests normed on monolinguals only.
8. Involve more than one professional.

Testing in Both Languages

The single most important factor in proper testing is testing the client in both languages. Sight translation or oral interpretation of English test is suboptimal.

*Side Note: any handouts, consent forms, feedback, etc should also be made available in both languages, but at the very least in the dominant language.

Summary

Assessors should take into consideration various language factors unique to bilingual individuals before determining the presence of a language disorder

Once all factors have been considered and, when possible, remediated, then use the results of both formal and informal testing in both languages to determine the presence of a disability/impairment/disorder.

When testing intelligence or personality...

Keep in mind that you are testing Western Intelligence, focuses on acquiring knowledge, and Western definitions of Personality.

– Eastern intelligence often incorporates aspects like interpersonal skills and humility for both intelligence and personality measures.

Remember factors mentioned earlier (e.g. timed tests, testing format, etc.)
### Basic Procedures During Assessments
- Determine if you are competent
- Determine if high stakes vs. low stakes
- Select appropriate measures
- Determine level of acculturation
- Determine language proficiency
- Using an interpreter/psychometrist
- Test in both languages
- Interpret results keeping in mind cultural and linguistic factors

### Determining Competency
**Are you sufficiently knowledgeable in the client’s language and culture?**
- If not, refer to another who is (optimal choice) or,
- If referral not available, obtain the services of a properly trained interpreter.

**Obtain training in pertinent cultural and linguistic factors.**
- Good job, you have a head start on this one!
- Cultural and linguistic factors vary for all cultures.

### High Stakes vs. Low Stakes
Determining the potential uses of results can help determine how strictly one should adhere to all the factors mentioned today.

- **High Stakes** — the results of testing will be used to determine the receipt of specific services. Improperly obtained results can be detrimental to the individual tested.

- **Low Stakes** — the results of testing are used to determine rough estimates of functioning or will be used only in specific settings where limitations of results are clearly understood.

### Select appropriate measures
**Are the norms appropriate?**
- Norms should represent population being tested
- If not, this should be noted in the report

**Adapted and translated appropriately?**
- Adaptation => were the item’s difficulty and cultural relevance changed.
- Translation => were the items back translated? And what regional dialect was used?
- Trend is for publishers to acknowledge this in manuals and test descriptions
Select appropriate measures

Is the test validated for the purposes for which it is being used?
- English IQ test with non-English speaker will not measure IQ but rather language ability; therefore, invalid use of test
- However, valid if the purpose of testing is solely to determine level of functioning as compared to English speakers (i.e. not for determining disability).

Is test designed for the level of education of the person being tested?

Select appropriate measures

There are no perfect measures
- Heterogeneity of Latinos and other ethnic groups difficult to capture in norms.
- Regional differences in language.
- Difficult to capture immigration status.
- Immigration experience different for different cultural groups.
- Effect of SES difficult to tease out for all the different variations of the above factors.

Select appropriate measures

Popular Ability Measures:
- Differential Ability Scale – II (DAS-II)
- WISC-IV, Spanish (WISC-V Spanish coming soon)
- Woodcock Muñoz Cognitive and Achievement tests
  Some limitations if using both
- WAIS-III and WMS-III, Spanish Norms
  Letter-Number Sequence should be substituted (Renteria, Timley, & Pfeakin, 2007).

Select appropriate measures

WISC–V Spanish
Coming Summer 2017

What’s new:
- New primary subtests
- New ancillary index scores
- More affluent and user-friendly
- Updated psychometric properties

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Select appropriate measures

Other Choices for ability measures:
- WISC-V English Nonverbal Index (NVI)
- Kaufman Assessment Battery for Children (KABC-II)*
- Kaufman Brief Intelligence Test (KBIT-2)*
- Escala de Inteligencia de Wechsler para Adultos – Tercera edicion (EIWA-III; don’t use EIWA-II)

Select appropriate measures

Popular Behavioral Health Choices:
- Pervasive Developmental Disorders Screening Test (PDDST-II)
- Battery for Health Improvement (BHI-2)
- Brief Battery for Health Improvement (BBHI-2)
- Pain Patient Profile (P-3)
Select appropriate measures

Popular Neuropsych Measures:

- NEUROPSI Screener (broad measure of cognitive functioning)
- NEUROPSI Attention & Memory 2ed
- Bateria Neuropsicologica de Funciones Ejecutivas y Lobulos Frontales (BANFE)

Select appropriate measures

Popular Personality Measures:

- Behavior Assessment System for Children, Third Edition (BASC-3)
- Minnesota Multiphasic Personality Inventory – Restructured Form (MMPI-A-RF)
- Personality Assessment Inventory - Spanish (PAI)
- Minnesota Multiphasic Personality Inventory – 2 (MMPI-2)
  - Susceptible to some bias
- Symptom Checklist – 90 – Spanish
- Beck Depression Inventory – II – Spanish
- Beck Anxiety Inventory – Spanish

Select appropriate measures

Popular Nonverbal Measures:

- Universal Nonverbal Intelligence Test - 2 (UNIT2)
- Weschler Nonverbal Scales of Ability (WNV)
- Test of Nonverbal Intelligence -4 (TONI-4)
- Comprehensive Test of Nonverbal Intelligence – 2 (CTONI-2)
- Raven’s Standard Progressive Matrices
- General Ability Measure of Adults (GAMA)
- BETA – 4

Important resources from the BUROS CENTER

Using an Interpreter/ Psychometrist

- Interpreter vs. Translator
- Qualifications of Interpreters
  - Ideally certified
  - High proficiency in both languages.
  - In-depth knowledge of cultures.
  - Understand not only the ethical standards of Interpreters, but also those of the assessor.
  - Successful interpreters integrate verbal and nonverbal communication.
**Using an Interpreter/ Psychometrist**

Qualifications of Interpreters (con’t)
- Avoid using telephone interpreters.
  - Non-verbal communication is lost
- Avoid using anyone invested in the results of the assessment as an interpreter (e.g. family members, friends, attorneys, etc.)

**Using an Interpreter/ Psychometrist**

Qualifications of Psychometrist
- Proficient in all aspects of the language to be used.
  - CALP vs. BICS also plays a role here.
- Preferably Certified
- If also used as interpreter, then should have similar qualifications as interpreter

**Using an Interpreter/ Psychometrist**

Clinician’s Responsibilities
- Determine the level of language proficiency of assistant.
- Explain importance of basic, proper assessment procedures.
  - Especially the importance of standard administration and not providing assistance to client.
- Explain the typical verbal and non-verbal responses that are diagnostic in nature.

**Preparing to use Interpreter or Psychometrist**

Best practice uses a briefing, interaction, and debriefing model

I. Briefing
- Clinician and assistant review background information.
- The purpose of testing is stated clearly.
- Plan seating arrangements
- Plan expected levels of interpretation.
- Simultaneous vs. Consecutive interpreting.

II. Interaction
- Clinician and assistant work as a team
- Clinician should always be present when using an interpreter.
- All should address the family and client directly.
- Assistant should be neutral at all times.
- Clinician is responsible for clinical observations.

III. Debriefing
- Clinician and assistant should review the process.
  - Review testing procedures.
  - Review interactions that caught clinician’s attention.
  - Discuss possible cultural and linguistic factors.
Interpreting Results

- When interpreting the results, keep in mind all the cultural and linguistic factors mentioned.
  - This is a complex process that can be facilitated by using the slides in this presentation
- Make note in the report of any cultural and linguistic factors you feel are influencing results.
- Also note limitations of tests used.

Interpreting Results

Use data from Language proficiency measures to explain possible strengths and weaknesses in subtest of other measures.

- E.g. Does deficit in expressive language translate into poorer performance on subtest requiring expressing the answer aloud? Do they do better on tests that only require pointing or simple one word answers?

Concluding Remarks

- Are the results consistent across measures?
  - If not, what is different linguistically and culturally between the measures used?
- Consider how the use of an interpreter or psychometrist may have influenced testing.

In short, proper assessment of bilingual individuals is a complex task that requires the consideration of cultural and linguistic factors typically not considered when testing monolinguals.

Questions – Discussions

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