



**Together
toward
tomorrow**

Workshop presented at the...



W1.03 Challenges of Adapting Language/Literacy Tests and Procedures for Children and Adolescents across Cultures, Languages, and Dialects

Dr. Nickola Nelson
Western Michigan U
USA




Dr. Jelena Kuvac Kraljevic
U of Zagreb, Croatia




Dr. Jóhanna Einarsdóttir
The University of
Iceland, Iceland




Dr. Elena Theodorou**
Cyprus University
of Technology,
Cyprus




**remote



*Presenters and remote contributor are all members of the Child Language Committee of IALP

Kia Ora

We are honoured to visit Aotearoa and would like to acknowledge the local people, the Ngāti Whātua ki Orakei, of the land on which we are meeting today.

Agenda – Challenges and Possible Procedures

1. Identifying tests that work across countries and languages; the CLC Committee*

— Dr. Jelena Kuvac Kraljevic, U of Zagreb, Croatia

2. Testing in a small country with its own language; the case of Iceland

— Dr. Jóhanna Einarsdóttir, The University of Iceland, Iceland

3. Adapting tests for different dialects; the case of Greece and Cypress

— Dr. Elena Theodorou (pre-recorded), Cyprus University of Technology, Cyprus

4. Standardizing a test for international use; working on TILLS-2

— Dr. Nickola Wolf Nelson (emerita), Western Michigan University, USA

Q and A and Conclusions

*Note: All authors are members of the Child Language Committee of the IALP.



1. Describe the IALP-CLC project listing assessments of language and literacy in various languages.
2. Outline 2 or more strategies for addressing language/literacy assessment in small countries and dialect groups.
3. Describe steps for adapting standardized tests for multiple groups.



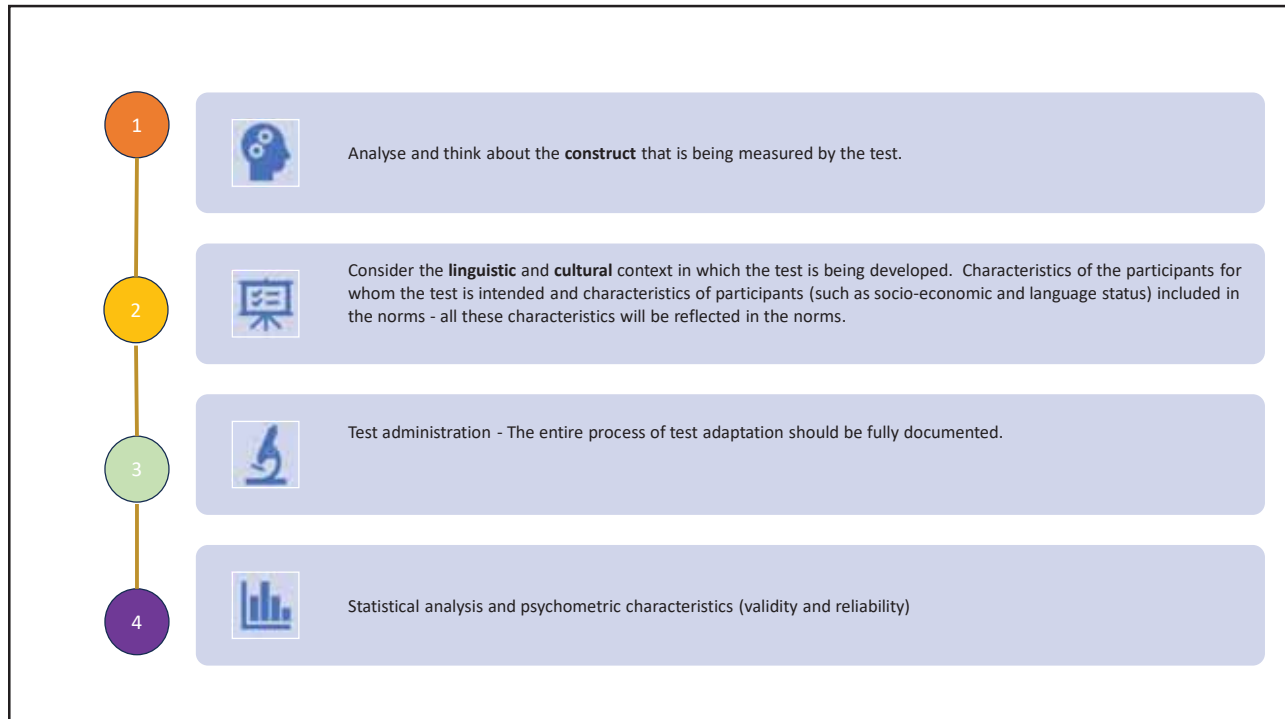
Adaptation of Language/Literacy Tests

Jelena Kuvač Kraljević
Department of Speech and Language Pathology
University of Zagreb, Croatia



How do you interpret the term adaptation?

adaptation is a very demanding process on which the valid results of the evaluation process largely depend on several implementation steps that must be carefully considered



The adaptation of the test may be so extensive that the adapted test exceeds the boundaries of the original test and becomes an entirely new test measuring the same construct!

HOW to MAKE DECISION about ADAPTATION vs DEVELOPMENT

There are no rules!

BUT for example, if you want to be linguistically comparable, approach the adaptation of the test.

Examples from Croatian

Adaptation of spoken language tests



Development of written language tests



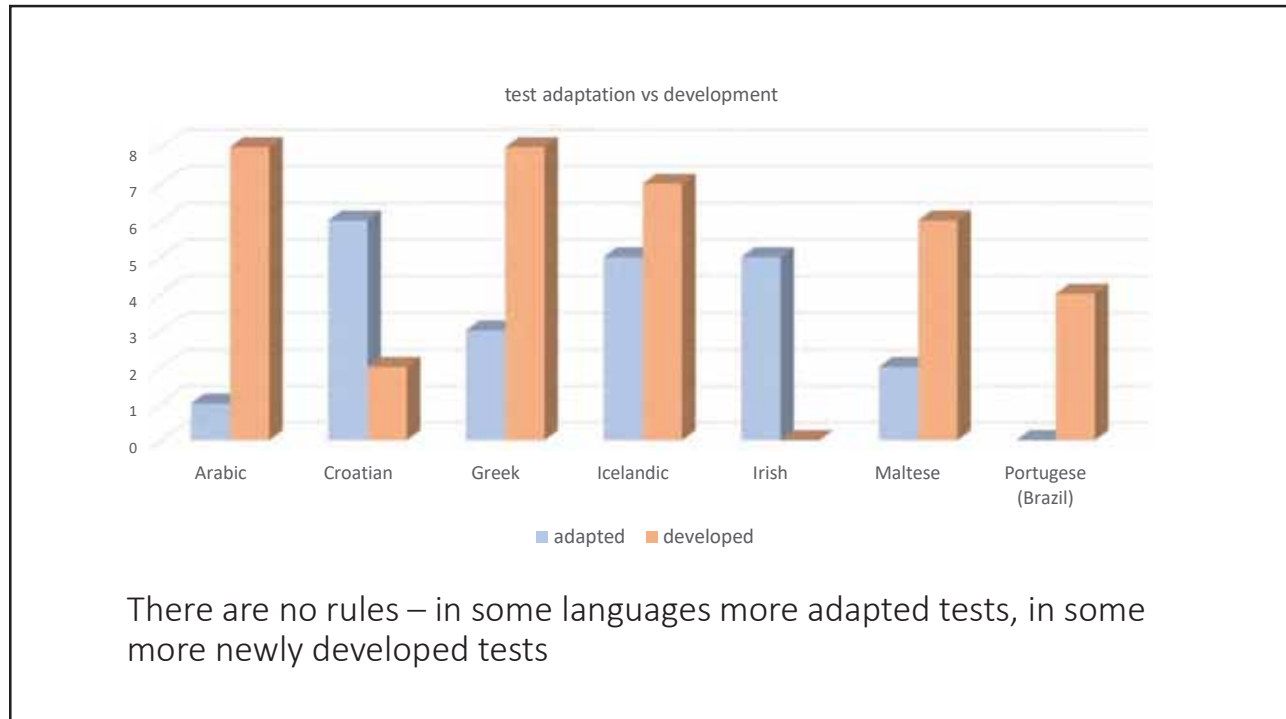
Child Language Committee project – List of the tests to assess language and literacy skills in various languages

Aims:

- 1) gain insight into the tests that exist in different languages with regard to a) their purpose b) the population they are intended for and c) the age they cover;
- 2) determine the extent to which test authors are inclined to adapt or develop new tests.

Up to now:

8 languages – Arabic, Croatian, Greek (Cyprot), English, Irish, Icelandic, Maltese, Portugese (Brazil)



If you want to join us, find us at:

<https://ialpasoc.info/other-resources/?id=237>

CLC – Other resources

OR

On personal website of Chair of the CLC
Marleen Westerveld

<https://www.marleenwesterveld.com/ialp-clc/>



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THANK YOU!!!

- Questions and comments for Dr. Jelena Kuvač Kraljević ?

You may also write questions and discussion points and pass them to the moderator, Dr. Westerveld, for the final Discussion.



Testing in a small country with its own language

Dr. Jóhanna Thelma Einarsdóttir, professor

University of Iceland Faculty of Medicine
Speech and Language Pathology

Iceland – small country – own language

- Population is 370,000 (about 4500 newborns per year).
- About 96% of children attend preschool, not compulsory.
- Population who are not Icelandic citizens has increased from 2.6% in 2000 to 14.6% in 2022.
- About 31.2% of pupils receive special education or educational support services.
- Homogenous language with no dialects that affect speech intelligibility between language users.
- Icelandic highly inflected language-
 - Nouns - endings to mark gender, number and case-
 - The verbs conjugate for tense, mood, person, number and voice



Reference: Statistics Iceland, 2023.

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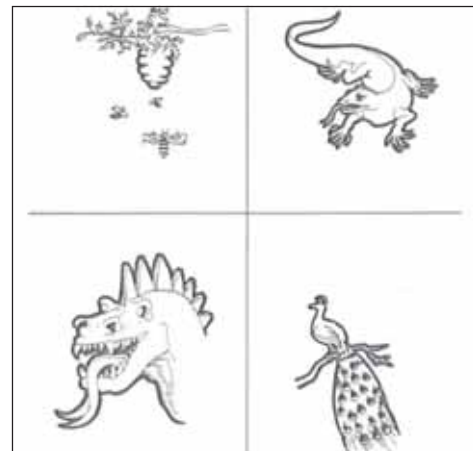
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Language tests in Iceland

- *Orðaskil* (standardized by Elin T. Thordardottir, 1998; for age: 18-36 months; expressive language (vocabulary); based on MacArthur-Bates CDI, 1993). Research based.
- *TOLD-2P* and *TOLD-2I* (translated and standardized in 1995 with 553 participants (325 and 228, respectively), age 4-12 years; is reliable and valid, however...)
- Reynell (the oldest version, not properly standardized but administered to a group of children: 'loose' norms).
- Among problems with translated language tests:
 - different language structure; nature of vocabulary etc.
 - over- or under estimation of skills
 - obtaining permission from publishers/authors

Jóhanna T. Einarsdóttir & Þóra Másdóttir ¹⁷

Examples from TOLD 2P



MELB objectives

- To explore overall language development of children at the age of 4;0 – 5;11.
- To evaluate possible language delays/disorders (e.g., Developmental Language Disorders); DLD).
- To reliably illustrate the language pattern of children with suspected disorders.



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MELB – theoretical support

- Research on Icelandic language development (e.g., Einarsdóttir et al., 2015; Másdóttir, 2008; 2014).
- Standardized assessment tests in Icelandic, for instance MUB [Language skills of young children] for age 2-4 (Másdóttir et al., 2018).
- Language samples ‘bank’ (Einarsdóttir et al., 2016).
- Language assessment tests in other languages (specifically to explore what works in terms of layout and ideas for test items).
- The test was developed with the four of the five fundamental language domains in mind: phonology, syntax, semantics and morphology. Pragmatics is not part of MELB.

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Language ability of older preschool children (MELB)

Málfærni eldri leikskólabarna (MELB)

Authors: Dr. Thora (Þóra) Másdóttir¹, Dr. Jóhanna T. Einarsdóttir¹, Ingibjörg Símonardóttir and Dr. Sigurgrímur Skúlason¹

¹University of Iceland

Pilot 1 2014

Auður Hallsdóttir
Margrét Samúelsdóttir
Sólveig Arnardóttir

Pilot 2 2016

Hildur Rut Sigurbjartsdóttir

Pilot 3 2018

Elva Bergþóra Brjánsdóttir
Hafðís Erla Valdimarsdóttir



Fundings

Sumargjöf
Styrktarsjóður Áslaugar
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Rannsóknarsjóður HÍ
Hagþenkir

Standardization 2019-2021

Test administration and analysis:
Authors
MSc students
Volunteers among SLT/Ps

Validity studies 2020

Brynja Björgvinsdóttir
Helena Kjartansdóttir
Stella Reynisdóttir
Valdís Björk Þorgeirsdóttir

Jóhanna T. Einarsdóttir & Þóra Másdóttir

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Pilots 1-3

- Seven master's theses: 297 children in Reykjavík and surrounding tested.
- Pilot 1: 100 children, a draft of test items, clip-art illustrations.
- Pilot 2:
 - 61 children, three age groups (a. 4;0-4;3, b. 4;11-5;1, c. 5;8-5;11)
 - fewer items
 - pictures drawn by a professional illustrator
 - internal consistency reliability (Cronbach's Alpha) for all subtests ranged from $\alpha = .56$ to $\alpha = .92$
 - correlation (Pearson's r) was significant between most subtests (range $r = .247$ -.794)
 - not adequate discriminative difference between the two older age groups
- Pilot 3:
 - 136 children (same age groups as for pilot 2)
 - similar number of items but "easy" items eliminated and "more difficult" added
 - Cronbach's Alpha for all subtests ranged from $\alpha = .68$ -.92; expressive and receptive parts: $\alpha = > .90$
 - Correlation (Pearson's r) was significant between all subtests (range $r = .462$ -.810)
 - significant discriminative difference between all three age groups ($p < .05$) except for non-word repetition ($p = .23$)



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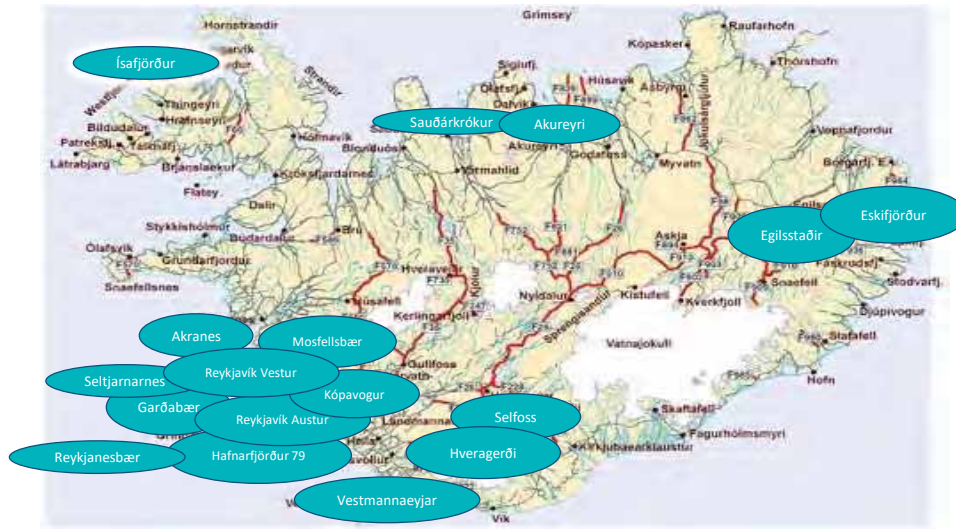
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<h2>MELB's subtests</h2> <p>MELB includes nine subtests (and one supplemental subtest) which assess test different aspects of language.</p>	MELB's structure	Receptive language	Expressive language
	Semantics	Word comprehension Concept comprehension	Word naming Meaning and inference
	Syntax	Sentence comprehension	Sentence repetition
	Morphology	Sentence comprehension	Expressive grammar Sentence repetition
	Phonology	Phonological awareness ("comprehension")	Phonology: multisyllabic words
	Language processing/ (supplemental testing)		Non-word repetition

Standardization 2019-2021

- About 870 children have been tested.
- Item analysis
 - weight, difficulty and ordering of items
- Scoresheet and picture book designed.
- Manual (in process), assessment procedures finalized.
- Validity measurements (masters' projects)
 - MELB and HLIÓM-2
 - MELB and language samples
 - MELB and Íslenski þroskalistinn
 - MELB and MUB
 - MELB and TOLD-2P
 - MELB and ICS scale
 - Content validity

MELB assessment in Iceland



Correlation (*r*) of test scores MELB compared to other tests/ assessments

 HLJÓM-2 = a test of phonological awareness skills
 LS = Language Samples;
 MLU = Mean Length of Utterance;
 TNW = Total Number of Words;
 NDW = Number of Different Words;
 TOLD-2P = Test of Language Development Primary;
 PCDI = The Preschool Child Development Inventory;
 ICS = The Intelligibility in Context Scale;
 MSW = Multisyllabic Words.

Tests	MELB – total	MELB – receptive	MELB – expressive
HLJÓM-2 total	.52**	.47**	.47**
Language samples			
-MLU	.38*	.18	.46*
-TNW	.38*	.18	.46*
-NDW	.47*	.20	.58**
MUB			
-total score	.83**	.69*	.82**
-receptive	.76**	.61*	.76**
-expressive	.82**	.71**	.80**
TOLD-2P			
-total	.84**		
-receptive		.60*	
-expressive			.84**
PCDI			
-total	.38*	.12	.48**
-Language	.57*	.37*	.62**
-Motor development	.07	-.19	.22
ICS			.53* (MSW)

**p* < 0,05
 ***p* < 0,01

Content validity of MELB

- 10 specialists (experienced SLP/Ts): rated the appropriateness of the test items for identifying language disorders, on a four point Likert scale.
- Total number of 62 items in two separate lists (receptive and expressive).
- Results:
 - Total Score: Mean = 3.53.
 - Receptive Score: Mean = 3.60.
 - Expressive Score: Mean = 3.45.
 - Lowest score was for the Sentence Repetition subtest ($M = 2.95$).
- Conclusion:
 - The specialists were on the whole in agreement with authors regarding the test item content.
 - Supports that the test items are appropriately testing a. receptive language, and b. expressive language.

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Conclusion: Validity of MELB

- The validity studies support that MELB truly reflects language development of children at the age of 4;0-5;11.
- Correlation is higher when comparing total scores of MELB with total scores of other tests that assess similar construct.
- Overall, the construct validity of MELB is appropriate.
- Content validity is appropriate.

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Conclusion: cont.

- No significant gender difference across age
 - Total score: $p = .906$
 - Receptive language: $p = .761$
 - Expressive language: $p = .873$
- There seems to be a significant difference in terms of preschool areas, not necessarily geographical location (e.g., urban vs. rural).

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THANK YOU!!!

- Questions and comments for Dr. Jóhanna Thelma Einarsdóttir

You may also write questions and discussion points and pass them to the moderator, Dr. Westerveld, for the final Discussion.



Cyprus
University of
Technology

Department
of Rehabilitation
Sciences

Adapting measures to account for dialect

Dr Elena Theodorou
Cyprus University of Technology



Dialect

- “Languages are invariably manifested through their dialects, and to speak a language is to speak some dialect of that language.... the term dialect is defined as a **neutral** label to refer to any variety of a language which is shared by a group of speakers” (Wolfram, 1991)
- The term dialect originates from the Greek word *διάλεκτος*, which means "discourse, language, dialect." This word is derived from *διαλέγεσθε*, which means "to discourse, talk."



Assessing language abilities in a dialectal setting

- Description, diagnosis and intervention cannot be based on findings from other languages to avoid confusion between different **linguistic properties** (e.g. Seymour et al., 1998; Wyatt, 2002; Thordardottir et al., 2011; Hendrics & Adlof, 2017)).
- Language variation is attested in dialectal situations, and it needs to be differentially distinguished from language impairment (e.g. Oetting & McDonald, 2002; Washington & Craig, 2004).
- Modifications could be made to existing tools for assessing language skills in the mainland language to make them suitable for dialect populations (e.g. Thordardottir et al., 2011; Theodorou et al., 2016)



The case of Cyprus

- ↻ No available tools designed to identify and/or diagnose children with language disorders
- ↻ Tests designed for Standard Greek & translated tests.
- ↻ Qualitative assessment and clinicians' subjective judgment.
- ↻ Arbitrary justification of intervention
- ↻ Obstacles to when and how the state should intervene.

(e.g. Theodorou et al., 2013; Theodorou et al., 2019; Theodorou et al., 2022)

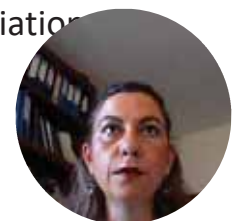
IMPORTANT!

Language tests must take into account linguistic characteristics of the dialect under evaluation and potential cultural differences (e.g. Oetting & McDonald, 2001; Washington & Craig, 2004; Oetting et al., 2016).



Challenges faced throughout the process

- No available normative data related to the dialect acquisition
- No available clear description of dialectal characteristics
- There is variation within dialect: basilect to acrolect
- The 'most appropriate language' used in experimental/ diagnostic context
- Speech and language therapists' attitude towards dialectal variation



Research on diagnostic procedures (Theodorou, Kambanaros & Grohmann, 2016)

Aims

1. To establish which of the existing language tools can identify children with DLD (SLI);
2. to investigate overall accuracy, specificity, and sensitivity of the existing tools;
3. to define whether combinations of measurements may facilitate the diagnosis of DLD (SLI).

CLINICAL LINGUISTICS & PHONETICS
http://journals.tandf.co.uk/TCLP/issue/11/1/110011



Diagnosing bilingual children with SLI: Determination of identification accuracy

Eleni Theodorou*, Maria Kambanaros*, and Kleantes K. Grohmann*

*Department of Rehabilitation Sciences, Cyprus University of Technology, Limassol, Cyprus; *Department of Rehabilitation Sciences, University of Cyprus, Nicosia, Cyprus

ABSTRACT

Very little is known about diagnosing specific language impairment (SLI) in children who are exposed daily to a dialect (community language) and a standard variety (school instruction). The research reported here examines the specificity and sensitivity of language tests used so far to evaluate language performance in the context of diglossia (Cyprus). Sixteen children with SLI aged 5–9 years and 22 age-matched typically developing children were examined on a range of language tests modified to include dialectal differences. Properties of each test were evaluated through logistic regression analysis in order to identify children with SLI. The analysis revealed that many of the tests used are sufficiently accurate concerning sensitivity and specificity levels. Furthermore, a combination of tests is proposed as a good tool for diagnostic purposes. Speech and language therapists as well as researchers can now rely on an accurate diagnostic procedure within a practice-based evidence framework.

ARTICLE HISTORY

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KEYWORDS

Bilingualism; Cyprus;
diagnosis; diglossia;
Greek; SLI



Diagnostic tests and dialectal modifications

Table 1. Description of assessment tools used and dialectal modifications made (Standard Modern Greek – Cypriot Greek).

Name of test	Authors	Age range of test	Language domain(s) assessed by test	Nature of dialectal modifications
Diagnostic Verbal IQ Test	Stavrakaki and Tsimpli (2000)	2;6–6;0	Expressive vocabulary	Lexical (e.g. <i>sproxi</i> – <i>kunda</i> 'is pushing')
			Expressive morphosyntax	Syntactic (e.g. <i>tis zoyrafise</i> – <i>ezoyrafise tes</i> 'painted her')
			Comprehension of metalinguistic concepts	None
			Comprehension of morphosyntax	None
			Sentence repetition	Morphological (e.g. <i>koliba</i> – <i>koliba</i> 'swimming')
Bus Story Test	Renfrew (1997 [1969])	3;6–7;0	Narrative skills	Phonological (e.g. /p ^h ɔ̃se/ – /p ^h ɔ̃se/ 'jumped')
Peabody Picture Vocabulary Test	Simos et al. (2011)	2;6–adulthood	Receptive vocabulary	None
Expressive Vocabulary Test	Vogindroukas et al. (2009)	4;0–8;0	Expressive vocabulary	Lexical (e.g. <i>saligaros</i> – <i>karaolos</i> 'snail') Phonological (e.g. /fidzani/ – /fetzani/ 'cup')
Athina Learning Disabilities Diagnostic Test	Paraskevopoulos et al. (1999)	5;0–9;11	Definition skills	Phonological
Phonetic and Phonological Test	Levanti et al. (1998)	2;6–6;0	Phonemic discrimination Phonetic inventory, phonological processes	None Phonological (e.g. /pexnɔ̃ja/ – /pexnɔ̃ka/ 'toys')



Key findings

Table 5. Percentages (and number of children) classified by each test administered.

Measure (n = number of items)	Cut-off score	BETA	Nagekerke R ²	Children with SLI (sensitivity)	Children with TLD (specificity)	Overall accuracy
DVIQ						
Vocabulary (n = 27)	21	-0.841	0.694	75% (12/16)	81.8% (18/22)*	78.9% (30/38)
★ Morphosyntax (n = 23)	17	-2.293	0.913	93.8% (15/16)**	95.5% (21/22)**	94.7% (36/38)**
Comprehension: Metalinguistic knowledge (n = 25)	19	-0.504	0.338	68.8% (11/16)	77.3% (17/22)	73.7% (28/38)
Comprehension: Morphosyntax (n = 31)	24	-0.217	0.115	37.5% (6/16)	86.4% (19/22)*	65.8% (25/38)
Sentence repetitions (n = 48)	43	-0.771	0.676	87.5% (14/16)*	90.9% (20/22)**	89.5% (36/38)*
★ Total DVIQ (n = 154)	128	-0.395	0.815	93.8% (15/16)**	90.9% (20/22)**	92.1% (35/38)**
Bus Story Test						
Information	31	-0.153	0.515	75% (12/16)	86.4% (19/22)*	81.6% (31/38)*
ARLS	7	-0.662	0.389	75% (12/16)	86.4% (19/22)*	81.6% (31/38)*
Number of subordinated clauses	5	-0.628	0.564	75% (12/16)	90.9% (20/22)**	84.2% (32/38)*
Number of T-units	17	-0.216	0.179	37.5% (6/16)	81.8% (18/22)*	63.2% (24/38)
MLU						
PPVT (raw scores) (n = 228)	43	-0.860	0.233	56.3% (9/16)	77.3% (17/22)	68.4% (26/38)
★ Expressive Vocabulary Test (n = 50)	61	-0.039	0.186	56.3% (9/16)	68.2% (15/22)	63.2% (24/38)
Athina Test Definitions (n = 40)	29	-0.434	0.734	87.5% (14/16)*	90.9% (20/22)**	89.5% (34/38)*
Phonetic and Phonological Test						
Phonemic discrimination (n = 32)	10	-0.495	0.646	81.3% (13/16)*	76.2% (16/22)	78.4% (29/38)
★ Phonetic and Phonological Test (n = 70)	17	-0.232	0.342	50% (8/16)	86.4% (19/22)*	71.1% (27/38)
★ Phonetic and Phonological Test (n = 70)	63	-0.379	0.599	62.5% (10/16)	95.5% (21/22)**	81.6% (31/38)*

**=Good discriminant level (>90%). *=fair discriminant level (80-90%).



Implications

- Tests that are modified according to the characteristics of the dialect can help clinicians & researchers detect and document language problems.
- These findings can be used to construct a comprehensive diagnostic test battery.
- The information the tests provide clinicians can be used for therapy planning.
- Tests (among others) are being standardized on the Greek Cypriot population.



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Standardizing a Test for International Use Working on TILLS-2

Nickola Wolf Nelson, Ph.D., CCC-SLP, BCS-CL
Professor Emerita, Western Michigan University



Disclosure: As an author of the TILLS, the presenter discloses that she receives royalties from Brookes Publishing Co., Inc.

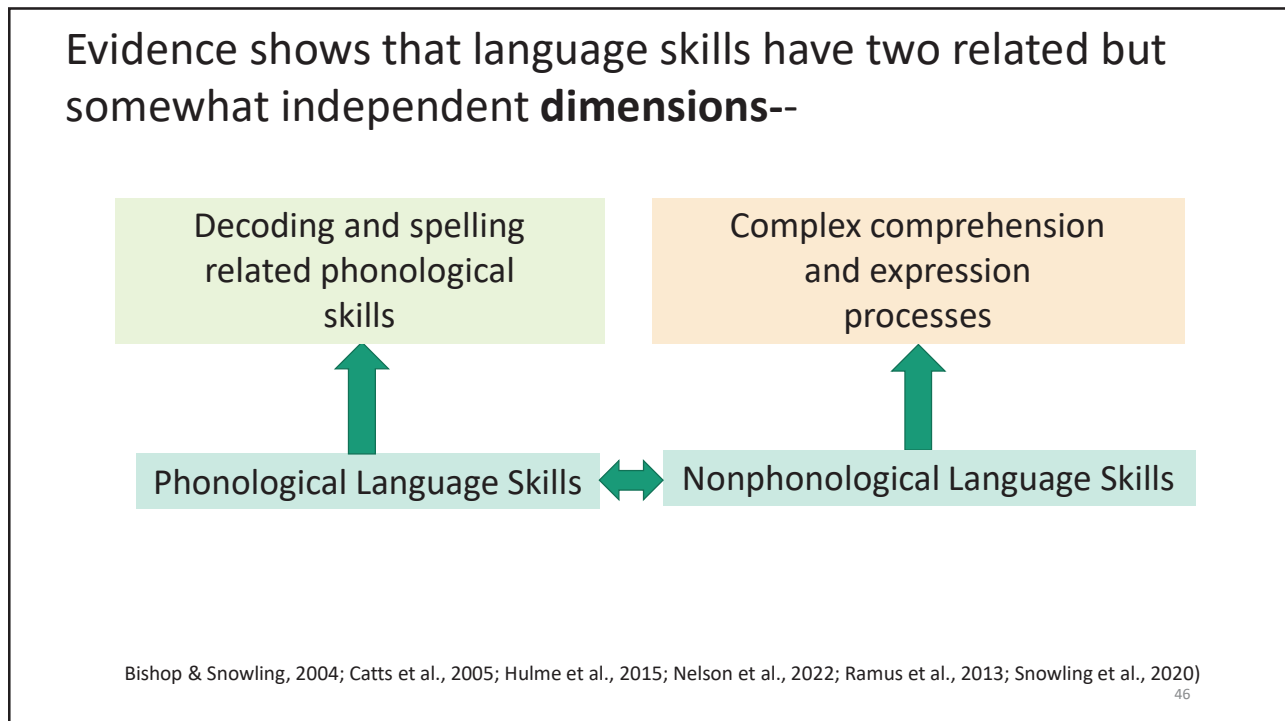
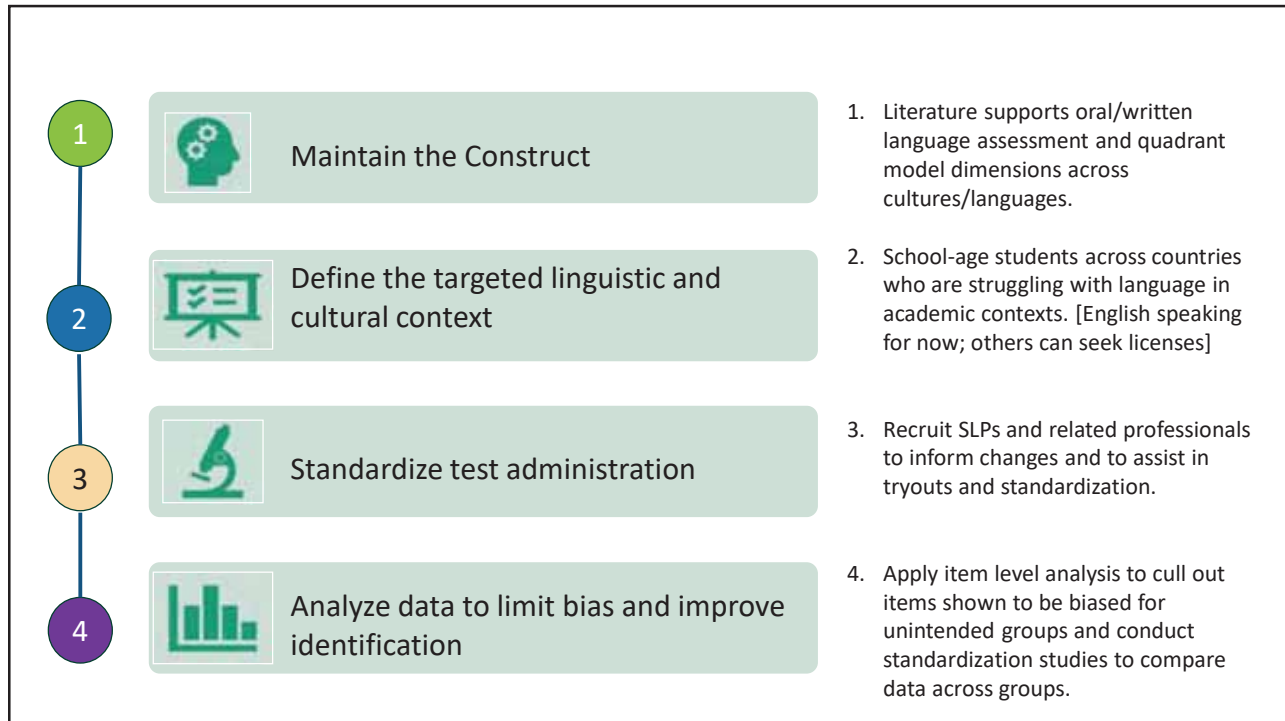
Challenges of Adapting Language/Literacy Tests across Cultural and Linguistic Boundaries

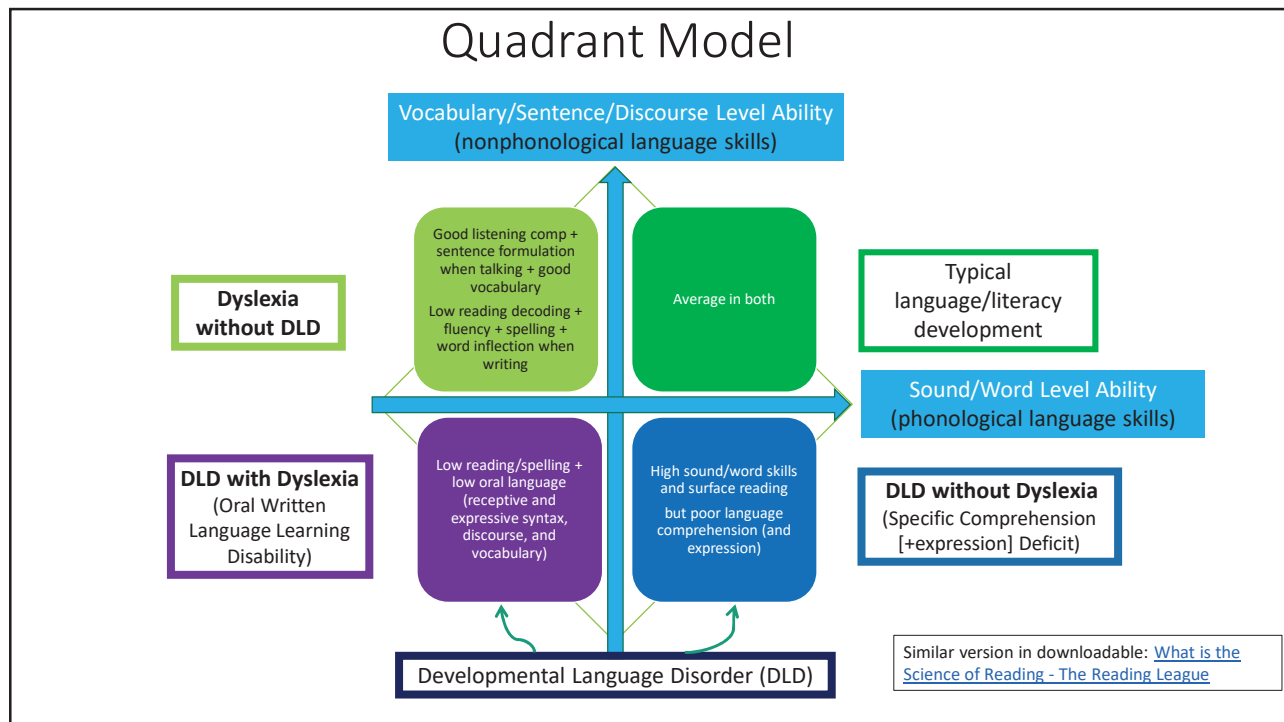
Needs

- Vocabulary, concepts, syntax, morphology, etc. must be familiar to children taking the test – tempting just to alter items
- Target cultural/linguistic group must match characteristics of the norm-reference group for cut scores and sensitivity / specificity to apply

Problems

- Any modification of standardized materials to make them familiar means that norms no longer apply
- Direct translation to a new language is not the answer
- It is expensive and time-consuming to gather new group norms for every country or group using the test, even with the same language





Problem

- English speaking countries other than the US have been using TILLS
- BUT
 - Some items are problematic. Maybe it's a few unfamiliar items that cause a child to score lower on one subtest than another compared to US norms, not differences in basic abilities
 - We can only guess that the norms might be somewhat comparable for students for other cultural/linguistic groups.

Procedures

- Survey current users
- Identify problematic content
- Modify the items
- Conduct multiple item tryouts with diverse groups → analyze results → cull items and modify or add new ones → tryout again → analyze again ... (on 3rd tryout) →
- Standardize (adjust cut scores as analysis results indicate to maximize sensitivity and specificity for each target group)

Examples

- Vocabulary

- stomach – swallow – cardinal → stomach – swallow – pigeon
- diamond – baseball – ruby → diamond – phone – ring

- Nonword Repetition

- Digital recording → Live voice reading by examiner

Examples

- Listening Comprehension and Reading Comprehension

The sport Eddie likes to play best is soccer. He can kick a soccer ball the second farthest in his class and run faster than anybody in his class.

a. Can Eddie kick a soccer ball farther than anyone else in his class?	Yes	No	Maybe
b. Does Eddie like to play baseball?	Yes	No	Maybe
c. Does Eddie run the fastest in his class?	Yes	No	Maybe

The sport Eddie likes to play best is football. He can kick a ball the second farthest in his class and run faster than anybody in his class.

a. Can Eddie kick a ball farther than anyone else in his class?	Yes	No	Maybe
b. Does Eddie enjoy playing football more than any other sport?	Yes	No	Maybe
c. Does Eddie run the fastest in his class?	Yes	No	Maybe

Sources

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THANK YOU!!!

- Questions and comments for Dr. Nickola Nelson

DISCUSSION OF QUESTIONS TO THE PANEL