

PEARSON



Preschool Language Scales-5: Assessing Language from 0-7

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Pearson Assessment

Course Objectives

- identify three key differences between PLS-4 and PLS-5
- describe two research studies conducted with the PLS-5
- describe at least two principles identified by ASHA as best practices in early language assessment

Test Purpose:

Identify young children (ages birth to 7:11) who have a language delay or disorder

New in PLS-5

- **Current norms for a wider age range:** based on the 2008 update of the U.S. Census for children birth through 7:11
- **Streamlined administration**, with new suggested start points and test items that involve manipulatives grouped for smoother transitions during testing
- **Improved test items**, based on clinician and field testers' feedback
- **New Growth Scale Values!** Evidence-based scores you can use to track progress
- **Updated Articulation Screener** with picture stimuli

What skills does PLS-5 target?

Assess a wide range of communication skills

- **Preverbal skills**
 - Attention to environment and people
 - Play
 - Vocal development
 - Social communication
 - Gesture
- **Language content and structure**
 - understanding and using concepts
 - Understanding and using morphosyntactic forms
- **Integrative language skills** (thinking using language)
 - Analogies
 - Similes
 - Categories
 - Semantic absurdities
 - Theory of Mind
- **Emergent literacy**
 - Book handling
 - Phonological awareness
 - Letter identification

Age Range and Administration Time

- **Age range:** Now birth through 7:11
 - Use normed scores for children through age 7
 - Use as a criterion-referenced tool for older elementary age children functioning at the birth to 7:11 age range
 - Not appropriate for use with secondary students or adults functioning at a language age of birth through 7:11
- **Administration time:**
 - Birth through 11 months: 25-35 minutes
 - 12 through 35 months: 45-55 minutes
 - 3:0 through 4:11: 50-60 minutes
 - 5:0 through 7:11 40-50 minutes
 - **New start points reduce administration time**

Test Kit and Manipulatives



Organization of the Test

Norm-referenced Scales

- Auditory Comprehension Scale
- Expressive Communication Scale

Supplemental Measures

- Language Sample Checklist
- Articulation Screener
- Home Communication Questionnaire

Home Communication Questionnaire



Home Communication Questionnaire

Child's name _____
 Child's birth date _____ Child's age _____ yrs _____ months
 Your Name _____ Today's date ____/____/____
 Your relationship to child mother father other _____

Dear Parent/Caregiver:

This questionnaire will help us learn about your child communication skills. The questionnaire includes communication behaviors for children age birth to 2½ years. There are two parts. The questions in Part 1 ask about who your child spends time with and how he or she spends the time. Questions in Part 2 ask about your child's communication and play behaviors.

Complete the questionnaire.
Check all behaviors that your child has previously exhibited or currently exhibits.

After you complete the questionnaire, please return it to: _____

Thank you.

Part 1																												
<p>My child has: ___ older brothers ___ younger brothers ___ older sisters ___ younger sisters</p> <p>The language(s) spoken to my child is/are: (circle the environment[s])</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">___ English</td> <td style="width: 12.5%;">home</td> <td style="width: 12.5%;">daycare/school</td> <td style="width: 12.5%;">community</td> </tr> <tr> <td>___ Spanish</td> <td>home</td> <td>daycare/school</td> <td>community</td> </tr> <tr> <td>___ other</td> <td>home</td> <td>daycare/school</td> <td>community</td> </tr> </table>	___ English	home	daycare/school	community	___ Spanish	home	daycare/school	community	___ other	home	daycare/school	community	<p>When at home, my child usually:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">Weekday</th> <th style="width: 25%; text-align: center;">Weekend</th> </tr> </thead> <tbody> <tr> <td>___ watches television</td> <td style="text-align: center;">___ hours per day</td> <td style="text-align: center;">___ hours per day</td> </tr> <tr> <td>___ plays with adults</td> <td style="text-align: center;">___ hours per day</td> <td style="text-align: center;">___ hours per day</td> </tr> <tr> <td>___ plays with other children</td> <td style="text-align: center;">___ hours per day</td> <td style="text-align: center;">___ hours per day</td> </tr> <tr> <td>___ plays independently</td> <td style="text-align: center;">___ hours per day</td> <td style="text-align: center;">___ hours per day</td> </tr> </tbody> </table>		Weekday	Weekend	___ watches television	___ hours per day	___ hours per day	___ plays with adults	___ hours per day	___ hours per day	___ plays with other children	___ hours per day	___ hours per day	___ plays independently	___ hours per day	___ hours per day
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Home Communication Questionnaire

My child pays attention to what's happening around him or her. For example, my child:

- reacts to sounds (e.g., startles when a door is slammed, looks up when the doorbell rings) AC3
- looks up from what he or she is doing when I call his or her name AC5
- looks at people who are talking AC1
- looks for food that's fallen from his or her high chair AC4
- looks toward where I'm pointing when I say, *look at the* ____ AC7
- other: _____ AC13

My child enjoys attention. For example, my child:

- smiles when I talk to him or her EC4
- "talks" when I talk to him or her (e.g., coos, gurgles, says sounds like *ma, dada, ai-yee*) EC6
- takes turns talking with me using sounds or words EC9

- speaks in phrases (e.g., *no night-night, more cookie, want that*) EC29
- speaks in sentences (e.g., *I want it. What's that? I go potty.*) EC31
- other: _____ EC33

My child says words. For example, my child says:

- family names (e.g., *mommy, dada, grandma, granddaddy, brother's or sister's name*) EC25
- animals (e.g., pet's name, *dog, kitty, bird, fish*) EC26
- food (e.g., *milk, juice, cookie, apple, snack*) EC30
- toys (e.g., *ball, dolly, balloon*) EC32
- daily routines (e.g., *go bye-bye, eat, bath, night-night*)
- body parts (e.g., *eye, nose, mouth, hand*)
- clothing (e.g., *shoe, sock, shirt*)
- other: _____

Scores

- **Auditory Comprehension, Expressive Communication, and Total Communication**
 - Standard scores
 - Percentile ranks
 - Growth Scale Values (formerly called *Progress Scores* on the PLS-4 Measure of Progress)
 - Age equivalents
- **Articulation Screener**
 - Research-based criterion scores by age

How different is PLS-5 from PLS-4?

Approximately

- 25% of the test items are new to PLS-5
- 25% are unchanged
- 50% have been modified in some way, with new art, new administration directions, or new practice items

New Test Items

- For ages 18-24 months
 - additional items assessing play
- For ages 3 through 4 years
 - new items assessing book handling and concept of print
- For ages 5 through 7 years
 - new items testing
 - Theory of Mind
 - Integrated language skills such as use of synonyms
 - Emergent literacy skills such as naming letters and understanding prefixes

New item: Uses synonyms

New Demonstration Item for Understands Size/Sequence Concepts (smallest, biggest)

New Practice item:
Uses Possessive Pronouns: hers, his

New Practice Item: Understands noun + two adjectives

Revised practice item

Updated art

Assessing Theory of Mind

- Theory of Mind
 - Capacity to understand another's mental state to explain and predict others' behavior (Miller, 2006)
 - Child learns to take another person's perspective
 - Link between Theory of Mind and communication (de Villiers & de Villiers, 2005)
 - Also important for comprehending narratives

Items integrating Theory of Mind concepts

- Some items requiring that the child make inferences about another's feelings or intentions

Understanding false beliefs

Examples of streamlined administration of test items

Auditory Comprehension

Score

 Ages 3:0-3:5

Materials: teddy bear, 3 cups, small pitcher, box with lid, spoon, bowl, 8 blocks

Note. Do not use gestures when presenting the item directions.

If you are continuing administration from Items 25 and 26 say, **Mr. Bear is finished with his nap. Now he wants to play hide-and seek.**

If you are beginning test administration with Item 27, say, **Here is my friend Mr. Bear. Mr. Bear wants to play hide-and-seek. He's going to hide now.**

Put the pitcher and teddy bear inside the box and replace the lid. Make sure the child is watching you do this and also saw the bear and pitcher inside the box. Then put the box, cups, and spoon on the table.

___ a. **Open the box and give Mr. Bear to me.**

Say, **We found Mr. Bear!**

Put Mr. Bear on the table. Take the pitcher out of the box and put them next to the cups and spoon.

Say, **Now let's get something to drink. You pour.**

Mr. Bear says he likes cold drinks. Here are some ice cubes. Show the blocks in your open hand and then put them on the table.

___ b. **Get an ice cube and put it in a cup for Mr. Bear.**

Say, **I want a drink too.**

___ c. **Please give me a cup.**

___ d. **Put an ice cube in my cup.**

___ e. **Where's your cup?**

Put an ice cube in your cup. (Do not score)

___ f. **Let's drink.** Pretend to drink.

Say, **Mmmmm. That was good. Please help me clean up now.**

27. Understands pronouns (*me, my* and *your*)

1 0

Score: 1 = 2 correct on parts c, d, e

28. Follows commands without gestural cues

1 0

Score: 1 = 2 Correct on parts a, b, c, d

Expressive Communication

Score

28. Uses different words for a variety of pragmatic functions

1 0

Materials: sealable bag with a snack provided by caregiver or a toy inside; a windup toy; toys and objects

Refer to the Examiner's Manual for complete administration directions.

___ a. requests actions or objects:

___ b. labels actions or objects:

___ c. requests repetition:

___ d. requests assistance:

___ e. answers yes/no questions:

___ f. uses a word to get attention:

Score: 1 = Uses words to express five pragmatic functions

Modified Articulation Screener, now with visual stimuli



Changes from PLS-4 to PLS-5

Item Administration and Scoring Changes

- New! Start points reduce administration time
 - Examinees take fewer test items
- All test stimuli are in the Record Form
- Items retained from PLS-4 are similar, but some items have scoring changes
 - Example: Naming Categories item: as long as the child names at least six items in the category, he or she may name one or two items that are not in the category
 - Specifics will be posted on PLS-5.com in late Spring

Scoring

18. Produces syllable strings (two- to three-syllables) with inflection similar to adult speech

CR 0 E 1 0

Materials: toys and objects the child has previously shown an interest in syllables strings:

Score: 1 = Produces one syllable string with inflection similar to adult speech

Scoring

- Basal: 3 consecutive correct responses
- Ceiling: 6 consecutive errors
 - Based on performance of children in the standardization sample
 - Because PLS-5 tests a variety of skills, a child could obtain one or more score points if you discontinue testing earlier

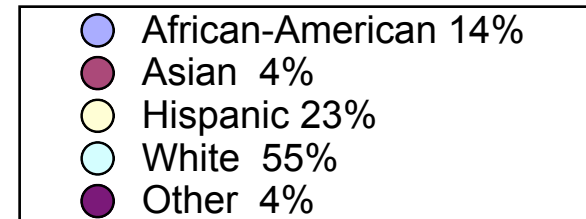
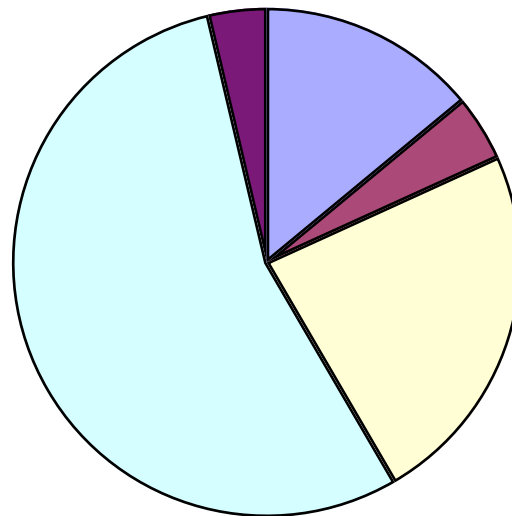
Standardization Research

- Over 1800 children were tested for standardization and related reliability and validity studies from December 2009 through August 2010
- The standardization sample was collected by 189 clinicians in 42 states in the United States

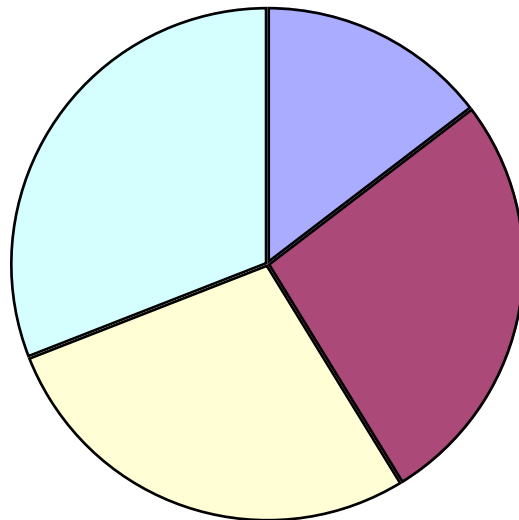
Technical Information

- Demographic Information
- Validity Studies
 - Clinical studies
 - Ages 1-2:11 language delay study
 - Ages 3:0-7:11 language disorder study
 - Sensitivity/specificity
 - Positive/negative predictive power
 - Correlations with other assessments
 - PLS-4
 - CELF Preschool-2
- Reliability Studies
 - Inter-rater reliability: .95 to .98
 - Inter-scorer agreement: .91 to 1.0
- Case studies
 - Autism
 - Hearing Impairment

Sample mirrors March 2008 Update of the U.S. Census: Race/Ethnicity



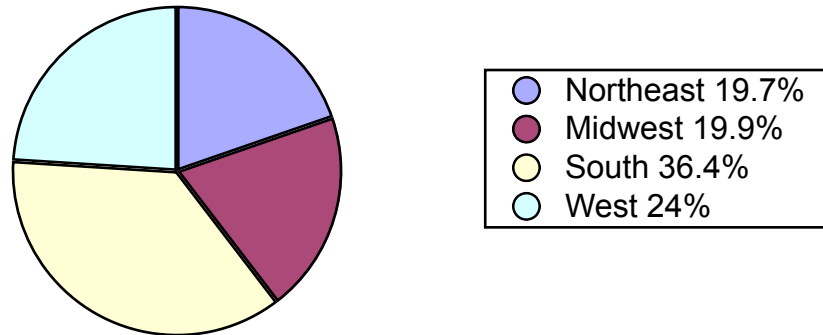
Sample mirrors March 2008 Update of the U.S. Census: Parent Education



● 0-11 years	15%
● High School diploma or GED	26%
● 1-3 years college or technical school	28%
● 4 or more years of college	31%

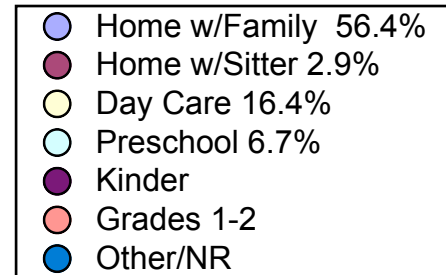
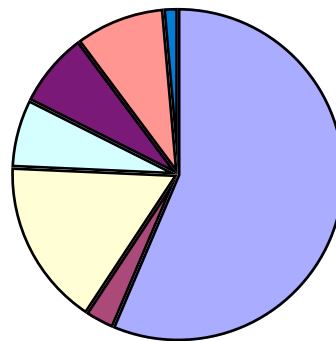
Sample mirrors March 2008 Update of the U.S. Census: Region

PLS-5 Normative Sample: Region



Where Children in the PLS-5 Sample Spend the Majority of their Day

Child's Learning Environment



Are children with disabilities included in the PLS-5 sample?

Educational Classification/ Diagnosis	PLS-5 Sample		U.S. Pop. ^a
	N	%	%
Attention-Deficit/Hyperactivity Disorder	3	0.2	— ^b
Developmental Delay	16	1.1	1.7
Gifted/Talented	5	0.4	— ^b
Intellectual Disability	2	0.1	0.2
Orthopedic/Motor Impairment	1	0.1	0.1
Other ^c	13	0.9	0.5
Speech-Language Disorder	55	3.9	3.8

^aU.S. population data for ages 3–7 from the *Thirty-First Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 2007*; United States Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs, 2009. Retrieved from http://www.ideadata.org/tables31st/ar_1-7.htm.

^bU.S. population data available for combined ages 6–18 only. The PLS-5 normative sample data could not be accurately compared to the U.S. population data due to the unique age groupings.

^cIncludes hearing impairments, other health impairments, visual impairments, multiple disabilities, deaf-blindness, and traumatic brain injury.

PLS-4/PLS-5 Correlations



Preschool Language Scale
Fourth Edition



Preschool Language Scales—Fifth Edition™

PLS-4	PLS-5						PLS-4	
	Auditory Comprehension		Expressive Communication		Total Language		Mean	SD
	<i>r</i>	Adj <i>r</i> ^a	<i>r</i>	Adj <i>r</i> ^a	<i>r</i>	Adj <i>r</i> ^a		
Auditory Comprehension	.78	.80	.65	.69	.77	.80	105.2	14.2
Expressive Communication	.64	.66	.77	.80	.75	.78	106.6	13.6
Total Language	.76	.78	.78	.81	.84	.85	106.3	13.8
PLS-5 Mean	104.8		105.1		105.3			
PLS-5 SD	14.6		13.5		13.8			

Note. Adj = adjusted. All scores are based on age norms; units are standard scores.

^aAll correlations were corrected for the variability of the norm group, based on the standard deviation obtained on the first administration, using the variability correction of Cohen et al. (2003, p. 58).

CELF Preschool-2/ PLS-5 Correlations



CELF Preschool-2	PLS-5						CELF Preschool-2	
	Auditory Comprehension		Expressive Communication		Total Language		Mean	SD
	<i>r</i>	Adj <i>r</i> ²	<i>r</i>	Adj <i>r</i> ²	<i>r</i>	Adj <i>r</i> ²		
Core Language	.65	.74	.70	.78	.71	.79	103.1	11.9
Expressive Language	.67	.75	.74	.82	.75	.82	102.0	11.6
Receptive Language	.64	.70	.66	.74	.69	.76	103.4	11.8
PLS-5 Mean	105.3		105.0		105.5			
PLS-5 SD	12.5		12.2		12.6			

Clinical Study: Developmental Delay



Scales and Total	N	Developmental Language Delay		Nonclinical Matched Sample ^a		Difference	t	Standard Difference ^b
		Mean	SD	Mean	SD			
Auditory Comprehension	23	74.0	9.1	96.4	16.3	22.4	5.45**	1.70
Expressive Communication	23	79.3	9.5	97.9	17.0	18.6	4.37**	1.35
Total Language	23	75.3	9.1	97.0	17.3	21.7	4.98**	1.57

Clinical Study: Receptive-Expressive Disorder



Scales and Total	N	Receptive-Expressive Language Disorder		Nonclinical Matched Sample ^a		Difference	t	Standard Difference ^b
		Mean	SD	Mean	SD			
Auditory Comprehension	66	74.8	13.5	101.0	13.6	26.2	11.52**	1.93
Expressive Communication	66	71.6	13.4	97.9	14.1	26.2	11.20**	1.91
Total Language	66	71.6	13.2	99.3	14.0	27.7	11.83**	2.03

Sensitivity/Specificity: NPP/PPP with 50% Matched Sample

	AC	EC	Total
Cut Score SD and Predictive Power	Matched Sample 50%	Matched Sample 50%	Matched Sample 50%
-1 SD			
PPP	0.83	0.86	0.81
NPP	0.77	0.85	0.83
-1.5 SD			
PPP	0.93	0.94	0.92
NPP	0.66	0.75	0.74
-2 SD			
PPP	0.96	0.95	0.94
NPP	0.60	0.63	0.63
<i>Note.</i> PPP is Positive Predictive Power and NPP is Negative Predictive Power.			

Reliability: Test-Retest Stability ($n = 127$)

Split-Half Reliability for Receptive Language Disorder (RLD), Expressive Language Disorder (ELD), and Receptive-Expressive Language Disorder (RLD-ELD), by Age

Age, Scale, and Total	RLD		ELD		RLD-ELD	
	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>
3:0–4:11						
Auditory Comprehension	31	.96	32	.97	24	.97
Expressive Communication	31	.96	32	.97	24	.96
Total Language	31	.98	32	.98	24	.98
5:0–7:11						
Auditory Comprehension	48	.97	52	.97	42	.97
Expressive Communication	48	.97	52	.97	42	.97
Total Language	48	.98	52	.98	42	.98
Total Sample						
Auditory Comprehension	79	.97	84	.97	66	.97
Expressive Communication	79	.97	84	.97	66	.97
Total Language	79	.98	84	.98	66	.98

Split Half Reliability (Internal Consistency)

Split-Half Reliability Coefficients for PLS-5 Scales and Total, by Age

Age	N	Auditory Comprehension	Expressive Communication	Total Language
0:0-0:2	50	.80	.82	.88
0:3-0:5	50	.84	.86	.91
0:6-0:8	50	.85	.93	.93
0:9-0:11	50	.82	.92	.92
1:0-1:5	100	.88	.89	.93
1:6-1:11	100	.94	.93	.96
2:0-2:5	100	.94	.89	.95
2:6-2:11	100	.93	.93	.96
3:0-3:5	100	.91	.94	.96
3:6-3:11	100	.94	.95	.97
4:0-4:5	100	.93	.94	.96
4:6-4:11	100	.93	.95	.97
5:0-5:5	100	.92	.94	.96
5:6-5:11	100	.92	.93	.96
6:0-6:5	50	.87	.94	.95
6:6-6:11	50	.97	.97	.98
7:0-7:5	50	.93	.88	.95
7:6-7:11	50	.94	.95	.97
Total Sample	1,400	.91	.93	.95

Reliability: Internal Consistency

Split-Half Reliability for Receptive Language Disorder (RLD), Expressive Language Disorder (ELD), and Receptive-Expressive Language Disorder (RLD-ELD), by Age

Age, Scale, and Total	RLD		ELD		RLD-ELD	
	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>
3:0–4:11						
Auditory Comprehension	31	.96	32	.97	24	.97
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Total Sample						
Auditory Comprehension	79	.97	84	.97	66	.97
Expressive Communication	79	.97	84	.97	66	.97
Total Language	79	.98	84	.98	66	.98

Reliability: Internal Consistency

Age, Scale, and Total	Language Delay	
	<i>N</i>	<i>r</i>
0:0–2:11		
Auditory Comprehension	23	.96
Expressive Communication	23	.93
Total Language	23	.97

Reliability: Inter-rater agreement

Inter-rater study ($n = 54$)

- Birth through 3:11
 - AC .96
 - EC .99
 - Total Language .98

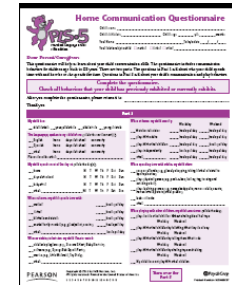
- 4:0 through 7:11
 - AC .96
 - EC .96
 - Total Language .96

Roles and Responsibilities of SLPs in Early Intervention

- www.asha.org/policy
- Four guiding principles
 1. family-centered and culturally and linguistically responsive
 2. developmentally supportive and promote participation in natural environments
 3. comprehensive, coordinated, and team based
 4. based on the highest quality evidence available

Family-centered and culturally and linguistically responsive

- Home Communication Questionnaire
- Caregiver participation in testing
- Caregiver-selected and caregiver-identified social routines and vocabulary tested for very young children
- Extensive bias review and widespread testing with a diverse sample has resulted in
 - Familiar home vocabulary and contexts
 - Dialectal, regional, and cultural variations to target responses are accepted as correct



Developmentally supportive and promote participation in natural environments

- Observation of naturally occurring behaviors for younger children
- Credit given for spontaneous productions in and outside the assessment room
- Developmentally appropriate skills assessed

Comprehensive, coordinated, and team based

- Provides a survey of language skills in the areas of
 - Social communication
 - Semantics
 - Morphology
 - Syntax
 - Articulation
- Useful for arena assessment; can be administered by professionals in child development teams

Based on the highest quality evidence available

- Current normative data
- Literature review
- Expert review

Questions?

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Frequently Asked Questions

www.PsychCorp.com

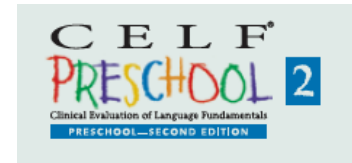
www.PLS-5.com



How do I know whether to use PLS-5 or CELF Preschool-2?



- Overview of developmental language skills in many areas
- Ages birth through 7:11
- Can assess preverbal children and children with low language ability
- Can assess children functioning in supported classroom environments (such as Early Childhood and classrooms for children with pervasive developmental delays such as autism)



- In-depth assessment of semantics, morphology, syntax
- Ages 3:0 through 6:11
- Assess children who speak in complete sentences
- Assess children functioning in mainstream classrooms

Both assessments target language skills; both point to intervention goals

Pre-Publication Pricing: Available Until April 30, 2011

COMPLETE KIT
(with Manipulatives) **\$300**



0158658914XD3

After April 30, 2011, the kit is \$335.

BASIC KIT **\$248**

0158658906XD3

After April 30, 2011, the kit is \$275.

RECORD FORMS (15) **\$60**

0158658965XD3

RECORD FORMS (50) **\$160**

0158658973XD3

COMPLETE MANIPULATIVES KIT **\$99**



0158659058XD3

After April 30, 2011, the kit is \$125.

UPGRADE MANIPULATIVES KIT **\$49**

(for those already owning a PLS-4 manipulatives kit)



015865899XXD3