

# Puerto Rican Spanish Phonology; a Case Study on Phonological Awareness Intervention

Author name: Dr. Nydia V. Bou

## OBJECTIVE #1

Understand the benefits of phonological awareness intervention in phonologically disordered children.

## OBJECTIVE #2

Review key aspects of Puerto Rican Spanish phonology including examples of phonological processes.

When speaking about phonological processes, it is extremely important to know the insights of the target language. Recognizing what's different vs. what's disordered among a language community is important in the diagnostic process. According to the year 2000 Census, Spanish is a language spoken by approximately 27 million speakers.

Puerto Rican Spanish has been recognized as one of the two most prevalent dialects spoken in the mainland US. As Speech-Language Pathologists, we are responsible for sorting out the array of patterns that are typical of a child's speech community from those that are indicative of a phonological disorder.

There are five vowels in Spanish; /i/, /e/, /a/, /o/, & /u/, and 19 consonants; the stops /p/, /t/, /k/, /b/, /d/, and /g/; the fricatives /f/, /s/, and /h/; the affricates /dz/ and /ts/; the glides /w/ and /j/; the liquids /l/, /r/, and /r/; and the nasals /m/, /n/, and /n/.

Spanish phonology system is different than that of English. There are fewer consonant and vowel phonemes in Spanish, less complex syllable structure and longer words. There are phonemes that exist in Spanish that do not occur in English,

and phonological development for Spanish speaking children is also different (Goldstein, Fabiano & Iglesias, 2004).

In terms of phonological processes, studies have found that at the end of the preschool years, Puerto Rican children may exhibit some of the following: cluster reduction, unstressed syllable deletion, stridency deletion, and tap/trill deviation, but will likely have suppressed fronting, stopping, and assimilation.

Speech, reading, and writing acquisition require the analysis of sounds in small lexical units which in turn is associated to cognitive and linguistic processes. Phonological awareness has been shown to be one of the most reliable predictors and associates of reading abilities. Training students in spelling, blending, and segmenting syllables and phonemes may be especially valuable because these skills are closely related to those which students use when actually reading and writing words.

Literature points out that phonological processing and sound system knowledge are concepts that have been used to understand spelling and reading development. Deep awareness of phonological structures is essential for reading success. According to the literature, performance of Kindergarten students in phonological awareness tasks is a predictor of the differences that will prevail among children at the end of the first grade and identify those who will be diagnosed with reading difficulties.

Our client was a 5 year old boy who started coming to the university clinic after a two year history of speech and language intervention. Previous intervention was not successful in eliminating phonological processes present at the time of evaluation. Case history revealed previous intervention had only focused on the motor aspects of speech production.

The client's speech was moderately unintelligible. He evaded words where he could predict misarticulation or any other production problem like he could said /

auto / vs. / karo / anticipating a problem in the production of the / r / sound. As described by his mother, only his close family could understand him and his new kindergarten teacher was having a hard time in the classroom understanding him.

Phonological processes present at the time of the evaluation were: weak syllable deletion he would say [fono] for /telefono/; fronting he would say [pomel] for /komer/; backing he would say [kasa] for /tasa/, and stopping he would say [atul] for /asul/. He also presented a poor awareness of speech movements required for proper articulation and low consciousness of meaning impact in the use of deviant phonological processes. His language abilities were 2 years under the chronological age (TVIP SS 86 AE 4;3; EOWPVT SS 95 AE 4;10 PLS-R SS 64 AE 3;3 PLS-E SS60 AE 3;4 & PLS-T SS 58 AE 3;3).

After the evaluation we established the following therapy objectives: (1) increase the awareness of phonological units embedded in the speech stream; (2) eliminate deviated phonological patterns and facilitate the emergence of age-appropriate phonological pattern use.

Even though we recommended two weekly 45 minutes individual therapy sessions, the client's family could only arrange to bring him to the university clinic once a week. Intervention started with intense phonological awareness intervention. Phonological awareness activities incorporated into treatment were: syllable segmentation, auditory closure, phoneme categorization, phoneme isolation, syllable blending, phoneme segmentation, rhyming, phoneme blending, and phoneme completion.

Following is a brief description and example of each of the phonological awareness tasks:

§ Syllable segmentation: how many parts are there in the word /eskwela/?

- § Auditory closure: with a picture as a reference let's say this is a... /ka \_\_\_/ and the client is expected to say /sa/ completing the syllable required for the word /kasa/.
- § Phoneme categorization: presenting a set of words where one of the words starts with a different sound like /kasa/-/karo/-/tasa/-/kuenjo/, and asking the client to identify which initial sound is different.
- § Phoneme isolation: which phoneme do you identify at the beginning of the word /kubo/?
- § Syllable blending: using drawings forms with the syllables printed inside to facilitate matching; "This is the star. Where is the other star? (The client points to the other star in the paper). Here we have /tu/ (in the first star pointed by the clinician) and in the other star we have /bo/. What does it say? The child is expected to blend the two syllables from the two starts in order to produce /tubo/.
- § Phoneme segmentation: how many sounds are there in the word /de/? The client is expected to answer "two".
- § Rhyming: at this moment in therapy our client is limited to identifying rhymes, for example: "/bolar/ /sonar/ do they rhyme?" He is still working on that objective with the next step being able to produce the rhymes.
- § Phoneme blending: the clinician produces the phonemes of a particular word and the client is expected to blend the phonemes thus creating the word. What word do you hear in: /m/-/o/-/n/-/o/? The client is expected to answer: /mono/.
- § Phoneme completion: with a picture as reference, this is /\_ amisa/. The client is expected to complete the word using the right phoneme (/k/ in this case) to produce the word /kamisa/.

Narratives, answering questions regarding a short story, listening and identifying absurdities, auditory bombardment, phonetic placement, motor/kinesthetic approaches, and minimal pair contrast therapy were also incorporated as treatment strategies to complement phonological awareness intervention and to provide for the language delay.

After 18 weekly individual therapy sessions during a 7 month period, speech was screened to establish actual phonological status. Results showed the elimination of phonological processes and overall speech intelligibility increase. No problems in reading tasks were reported by Kindergarten teachers at that moment. Our client is scheduled for speech and language re-evaluation during this summer.

Even though age appropriate Spanish phonological patterns have emerged with phonological awareness intervention, our client still needs follow up on the motor aspects of speech production. Presently, he is working to increase the precision of the production of small speech units, language objectives, and moving from the shallow to the deep level of phonological awareness.

#### TESTS AND MATERIALS

Viajando Con Oscar™ <http://www.superduperinc.com>

Un Juego del Conocimiento Fonológico

A Phonological Awareness Game

by Shannon Nowak

Grades PreK - 5

Viajando con Oscar™ combines phonological awareness and fun! The game has over 1,100 phonological awareness questions in Spanish and over 300 questions in English. It focuses on 8 areas critical for reading success, including: Rhyming; Phoneme Identification; Matching Phonemes; Embedded Phonemes; Segmentation; Blending; Deletion; Phonological Translation.

Test of Phonological Awareness in Spanish (TPAS) <http://www.agsnet.com>

Authors: Cynthia A. Riccio, Brian Imhoff, Jan E. Hasbrouck, and G. Nicole Davis

Ages: 4-0 through 10-11

Testing Time: 15 to 30 minutes

Administration: Individual

The Test of Phonological Awareness in Spanish (TPAS) measures phonological awareness ability in Spanish-speaking children. The TPAS can be used to help identify children who may benefit from instructional activities to enhance their phonological abilities to aid reading instruction.

Niños y Sonidos Spanish Phonology Cards <http://www.superduperinc.com>

by Evelyn Rodriguez Laiacona, M.S., CCC-SLP

and Wanda Carrasquillo, M.S., SLP

320 large 2 3/4"x 4 1/4" color illustrated, heavy stock, coated cards.

8 decks of cards that have 16 minimal pairs of Spanish words in each deck (32 cards per deck total) for the following processes: Stopping, Velar Fronting, Pre-Vocalic Voicing, Final Consonant Deletion, Cluster Reduction, Cluster Omission, Weak Syllable Deletion, and Weak Consonant Deletion. 2 sets for Liquid Simplification and Stridency Deviation (32 different words per deck).

Fonología en español: tratamiento

Fonología en español: dibujos y actividades

<http://www.locutour.com/products/products.php?cat=Spanish>

CD ROM based exercises intended to be a practical resource for the Speech-Language Pathologist working with bilingual or monolingual Spanish speaking children with phonological delay. Provides clinicians, paraprofessionals, and parents the ability to print out 141 different stimulus pictures and game boards for supplemental practice.

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