

# **A Therapeutic Program for an Oral Language Disorder Caused by Hearing Loss**

The acoustic phonetics and audio verbal technical for articulation associated with rhythmical movements to construction of oral language

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## **Abstract**

The program contains the new creative of cure and its results proved to be fruitful and effective 15 years ago. The method is a bunch of techniques entitled : The acoustic phonetics and audio-verbal technical movements to construction of oral language.

These techniques assist the child to develop his verbal language , starting from the phonetical and phonological system and ending up in spontaneous speech.

This method has been applied on many cases of children with different dialects and languages. Since an early and for consecutive years the method has proved successful as children were merged with other normal ones in ordinary schools. Some cases attained secondary education and universities.

## **Key Words**

Acoustic phonetics – Audio – Verbal Technical – Rhythmical Movements – Sensory and Perception Channels- Pragmatic Language.

### ملخص :

يحتوي البرنامج على طريقة علاجية جديدة مبتكرة، أثمرت نتائجها بالنجاح منذ خمسة عشر سنة. والطريقة مجموعة من التقنيات وهي "الصوتيات الفيزيائية وتقنيات إزالة الخرس وحركاتها الإيقاعية في بناء اللغة المنطوقة عند الطفل الأصم"، هذه التقنيات تساعد الطفل على تطور لغته المنطوقة، بدءاً من النظام الصوتي أو الفونتيكي والفنولوجي إلى الكلام العفوي.

طبقت التقنيات العلاجية على حالات أطفال عديدة باختلاف لغاتهم ومنذ السن المبكر ولسنوات متتالية أثمرت بدمجهم في مدارس عادية، فوصلت بعض الحالات إلى التعليم الثانوي والجامعي.

### الكلمات المفتاح:

الصوتيات الفيزيائية - تقنيات سمعية - لفظية - حركات إيقاعية - قنوات حسية - إدراكية - لغة برغماتية

### Fundamental of application

-The method is applied to all degrees of deafness and those to carry hearing aids or with cochlear implants.

- The method is applied all individual cases and group of cases using same language or dialect.

- The method is applied by mother, teacher and specialist within the framework or an integrated schedule and teamwork.

- The therapy starts as soon as possible in early age and the results will be attained the objective and the possibility of schooling will be easier.

- The participation of the family members and the social context in conversation and communication with the child by using a language which is not less significant than normal performance.

- Psychologist and Speech-Therapist, should follow up the skill development in deaf child in communication and language ; cognition; social- emotional development and adaptative behavior by comparing it to normal development.

We are using the **DAYS Test/ Development Assessment for Young Children (Judith K. Voress , Taddy Maddox; pro-ed,1998)**.

It's a battery with 05 subtests measure five activities or areas:

**1-Cognitive subtest/** The cognitive subtest consists of 78 items that measure skills and abilities : Perception-Understanding- Judgment – Knowledge – Reasoning- Attention – Memory.

**2- Communication subtest/** Communication subtest consists of 78 items.

Communication is broad term that refers the exchange of ideas, information and feelings. Communication skills involves both receptive and expressive language and verbal or nonverbal expression.

**3- Social- Emotional subtest/** The social- emotional subtest consists of 58 items that measure the child's social awareness, social relationships and social competence.

**4- Physical development subtest/**The physical development subtest consists 87 items that measure a child's motor development.

**5- Adaptative test/** The adaptative behavior subtest consists of 62 items that measure a child's independant functioning in his or her environment self-help skills.

**Principal of acoustic phonetics and audio-verbal technical for articulation associated with rhythmical movements to construction of oral language.**

1-Utilizing all the child's sensory and perception channels.

2- Utilizing all the organs of articulation and voice which are the frictions of air with articulation points of the organs of speech.

3- Arranging the rhythm in the manner of syllables inside the words in speech.

4-Development of comprehension and pronunciation simultaneously.

5- Evolution of language performance and language efficiency concurrently, starting with the pragmatic language, ending up with the language of thought.

6- Use of pictures as visual stimuli representing concretes and stimulating sentences related to daily life using with different tenses conjugated .Such a strategy helps the child to widen the scope of his imagination.

7- With this method of verbalization, language grammar, conjugation and syntax develop without limitation; contrariwise to the pictorial illustration technique which is used for the purpose of narrating a sequence of events which delimits the mind and the imagination of the child; the use of sentences is only descriptive.

8- Arranging the phonetical and articulatory rhythms of the verbal language help to arrange the visual and the auditory perceptions during the process of reading and writing (Phonological awarness).

**Program's techniques:**

The program contains four phases:

**First phase:**

Construction of the phonetics system in terms of these parameters :

- Point of articulation.
- Manner of articulation.
- Role of vocal folds: State of the glottis (voiced sounds/ voiceless sounds).

**[a]** Mouth opened; and the position of the tongue is neutral. Putting the hand on the larynx and produce a laryngeal sound.

**[o]** The shape of the lips is rounded; the tongue position is raised little back. Putting the hand on the larynx and producing the laryngeal sound.

**[i]** The shape of the lips and the tongue are spread as for smile. Putting the hand on the larynx and producing a laryngeal sound.

### **[p/b] Bilabial sounds / Stops**

Blow up the cheeks; squeeze the lips and produce a stop sound. **[p]** is a voiceless sound, **[b]** is voiced. You introduce the different vowels with the phonemes.

### **[m] Bilateral sound / Nasal**

Produce a continuous nasal sound **[mmm...]** without lips forcing. The articulation is accompanied with a vibration of the vocal folds. **[m]** is voiced. You introduce the different vowels with the phoneme.

### **[w] Velar sound / Glide or semi-vowel**

The shape of the lips is rounded without forcing. Keeping a small opening between the lips. You introduce the different vowels with the phoneme.

### **[f/v] Labio-dental sound/ Fricative**

Tell the child to blow a candle, or to blow on the hand as a continuous air **[fff...]**. **[f]** is voiceless sound, **[v]** is voiced sound. Introduce the vowels with the phonemes.

### **[t] Apico-alveolar/Stop**

Put the tip of the tongue or the apex with upper front teeth and press the air as a stop sound. **[t]** is voiceless sound.

### **[d] Apico-dental/ Stop**

Put the tip of the tongue or the apex with upper front teeth and press the air a stop sound. **[d]** is voiced sound.

### **[t] Apico-dental/ Emphatic**

Press the front of the tongue with the upper front teeth. **[t]** and **[t̪]** have the same point of articulation. **[t]** is soft, **[t̪]** is an emphatic sound.

### **[d] Apico-alveolar / Emphatic**

It has the same point of articulation of **[d]**, but emphatic. Put the

front of the tongue with the upper front teeth and produce the emphatic sound.

**[θ] Inter-dental/ Fricative**

Put the apex between the upper and lower teeth and produce a continuous little cold air. [θ] is a voiceless sound.

**[ð] Inter-dental/Fricative**

Put the apex between the upper and lower teeth and produce a continuous little cold air. [ð] is a voiced sound.

**[ʈ] Inter-dental/ Emphatic**

Put the front of the tongue between the upper and lower teeth and produce a continuous little cold air and an emphatic sound.

**[l] Apico-dental/ Lateral**

Put the apex with the upper front without pressing. Escaping air passes out over the sides of the tongue.

**[r] Apico-alveolar/ Vibrant**

It has the same point of articulation of [l], but [r] is vibrant , [l] is lateral.

**[n] Apico-alveolar /Nasal**

Same point of articulation of [l], but the soft palate is lowered down , so the air passes through the nose . Put your forefinger on the nostril and produce a continuous nasal air [nnn...].

**[s] Apico- alveolar / Fricative**

Put the apex with the upper front teeth and produce a continuous cold air on the hand of the child [sss...]. [s] is a voiceless sound.

**[z] Apico-Alveolar / Fricative**

Put the apex with the upper front teeth and produce a continuous cold air on the hand of the child [zzz...]. [z] is a voiced sound.

**[š]/ Pre-palatal/Fricative**

Produce a continuous hot air from out over the sides of the lips [ššš...].

**[ǰ]/ Pre-palatal/Stop**

Squeeze the sides of the front tongue to the palate.

**[k]/ Dorso-velar/Stop**

Put the tongue opposite the position of [t]. The movement of [t] is anterior. The movement of [k] is posterior. Progressively push the apex with a tongue depressor in the posterior without pressure till the child pronounces the phoneme.

**[g]/ Dorso-velar/ Stop**

It has the same point of articulation of [k], but [g] is voiced and [k] is voiceless.

**[q]/ Uvelar/Stop**

When the child pronounces the sound [k], push the tongue down with a tongue depressor to prevent it from moving up the post-palate.

**[ħ]/ Pharyngeal/ Fricative**

Produce a continuous hot air as feeling pain [ħħħ...].

**[x]/ Post-velar/Fricative**

Produce a sound by a gargle. [x] is voiceless sound.

**[ɣ]/ Post-velar/ Fricative**

Produce the sound by a gargle. [ɣ] is a voiced sound.

**[ʕ]/ Pharyngeal / Fricative**

Produce a vomiting sound [ʕʕʕ...]

**[h]/ Laryngeal / Fricative**

Put the hand on the chest and breath [hhh...].

### **[j]/ Medio-Palatal/ Glide or Semi-vowel**

Squeeze the sides of the tongue and the chin down.

#### **Second phase:**

##### **Oral Comprehension Training:**

When the child acquires all the phonetics system , pass immediately to the oral comprehension (Words/Pictures) by Speech – Reading. You ask him/ her to point at the picture one per one among four pictures , as example “ Show me...?” or “Where is ...?”.

#### **Third phase:**

##### **Pictures naming:**

Use same stimuli in oral comprehension for the naming. Now, the question is not “Where is...?”, but “What is this “. Helping the child to produce the words per syllables, and progressively the rhythm of the articulation improves with training then the spontaneous naming improves.

#### **Fourth phase:**

The therapist or others produce simple sentences and ask the child to repeat them which help him/her to acquire the models of the morpho-syntax and reinforce the oral language in child. The sentences should not be descriptive but communicative.

We starts one stimuli, it's mean one picture; two pictures/two sentences; three pictures/three sentences; four pictures/ four sentences; five pictures/ five sentences; six pictures / six sentences.

Parents, caregivers, families, teachers can help the child to use appropriate language in social situations in different pragmatics purposes, such: greeting, information, demanding, promising requesting. From the pragmatic language, the child develops his verbal skills through the tough and his development and vice-versa. Developing the oral language in child with hearing impairment in early age, we prepare him/her for regular classroom then we follow him/her with support services.