

كلية التربية

المادة: صوتيات

الفرقة: الأولى لغة إنجليزية

القسم: تربية خاصة

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المحاضرة الأولى

# **Organs of speech**

The three systems of speech organs that have different functions in the speech production process are:

1. The respiratory system
2. The phonatory system
3. The articulatory system

# 1 – The Respiratory System:

- ❑ The respiratory system provides the airstream on which speech is produced.
- ❑ It determines the fact that speech is divided into breath groups and contributes to the production of different levels of loudness and stress.

## 2 – The Phonatory System:

- ❑ The larynx and the vocal folds constitute the phonatory system.
- ❑ Its main function is to provide voice with the help of airstream coming from the respiratory system.
- ❑ Speech sounds can be divided into voiced ones and voiceless ones.

- ❑ Only voiced speech sounds are produced with vocal fold vibration.
- ❑ During the production of voiceless sounds, the vocal folds are open and do not vibrate.

□ We can distinguish five modes of phonation:

- voice
- voicelessness
- whisper
- breathy voice
- creak

- ❑ For the production of voice, the glottis is closed and the vocal folds are touching each other lightly.
- ❑ The airstream coming from the lungs causes vocal fold vibration.



- During the production of voiceless sounds, the glottis is open, i.e., the vocal folds are wide apart and the airstream passes through without making them vibrate.

## 3 - The Articulatory System:

- The articulators of the articulatory system are :

The lips , teeth, roof of the mouth and the tongue.

## □ The teeth:

الأسنان

The two upper front teeth are used in English to some extent.

## □ The lips:[upper and lower:

الشفاه

Lips can take up various different positions.

- They take up four different shapes depending on the quality of the sound produced.
- These shapes are spread, rounded [open], rounded[close], and neutral.

## □ The Tongue:

- **The tongue** is the most important of the organs of speech because it has the greatest variety of movement.
- **The tongue** is a flexible organ that can take up different shapes and move forward, backward, up, and down in the mouth.
- **The tongue** is divided into four parts:
  - The back of the tongue
  - The front of the tongue
  - The tongue tip
  - The tongue blade

## ❑ The palate:

الحنك / سقف الحلق

- The palate forms the roof of the mouth and separates the mouth cavity from the nose [nasal cavity].
- The soft palate, the hard palate, and the alveolar ridge.
- The soft palate or velum is a muscular flap that can be raised to press against the back wall of the pharynx. It extends from the middle to the back end of the roof of the mouth.

- The hard palate extends from the alveolar ridge to about the middle of the roof of the mouth.
- The alveolar or teeth ridge can be clearly felt behind the teeth.

## □ Uvula:

اللهاة

The uvula is the small thing that exists at the back of the soft palate.

## □ Pharynx:

بلعوم

The pharynx is the cavity [a small chamber] between the root of the tongue and the back walls of the upper throat. There is no pharyngeal English sound but in Arabic there is /ʔ/, ع/ (voiced) & /h, ح/ ( voiceless).

□ Epiglottis:

لسان المزمار

The epiglottis is the fold of tissue below the root of the tongue.

□ Glottis:

المزمار

The glottis is the opening between the vocal folds.



## ❑ Larynx:

الحنجرة

The larynx is a box like structure composed cartilage, and inside, there are the two vocal folds.

## ❑ The vocal cords:

الأحبال الصوتية

They are situated in the larynx. The vocal cords are the two small bands of elastic tissue, which can be thought of as two flat strips of rubber, lying opposite each other across the air passage.

- They are a pair of fleshy, lip-like membranes.
- The action of the vocal folds determines the quality of the sound produced.

# The organs of speech

- lips
- teeth
- oral cavity
- nasal cavity
- alveolar ridge
- hard palate
- soft palate [velum]

- uvular
- pharynx
- larynx
- vocal folds
- tongue tip
- tongue blade
- tongue front
- tongue back

## Assignment 1:

1. What are the different parts of speech?
1. What are the parts of the palate?
1. What are the four parts of the tongue?

## Assignment 2:

Answer the questions on p.73-74

With My Best Wishes