Organs of Speech in Communication: Functions and Pedagogical Implications

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ABSTRACT

Each organ of speech or articulator plays a special role in the production of speech sounds; and these speech sounds ease human communication. The tongue, lips, teeth, lungs, vocal cords, velum, soft and hard palate, larynx and pharynx among others help to ease human communication. This work examines organ of speech or articulator, its functions and pedagogical implications. The diagram of the organ of speech has been used to aid the discussion. The work discovers that the ear functions as an important organ of speech in sound production. The work recommends among many others that the teaching of organs of speech to the students should be very practical, and the language laboratory should be fully used in the teaching of this topic.
Keywords: *Organs of speech, communication, pedagogy*

INTRODUCTION

Speech production cannot be done in isolation except with the involvement of the articulators for fluency and articulation. Fluency and articulation in speech are synonymous with competence and performance in any language. So, the thrust of this work has been an x-ray of the respective organs of speech in communication: functions and pedagogical implications as Saleh (2007) points out that teachers of English should use different methods in teaching, especially audio-lingual method. Williams (1990) emphasizes on drilling, repetition and practice to achieve fluency and articulation, competence and performance in second or foreign language learning. The pedagogical implications are teachers' involvement in the teaching of organs of speech. The purpose of this study, therefore, is to give an x-ray of the different organs of speech and the teaching implications involved.

Different Organs of Speech and their Functions

The Pharynx: Roach (2000) explains that it is a tube which begins just above the larynx and it is about 7cm in women and about 8cm in men. Roach further states that the primary function of this articulator is to convert a relatively steady flow of air out from the lungs into a series of quasi – periodic puff of air as the glottis opens or closes. The pharynx is divided into two channels called oral cavity and the nasal cavity.

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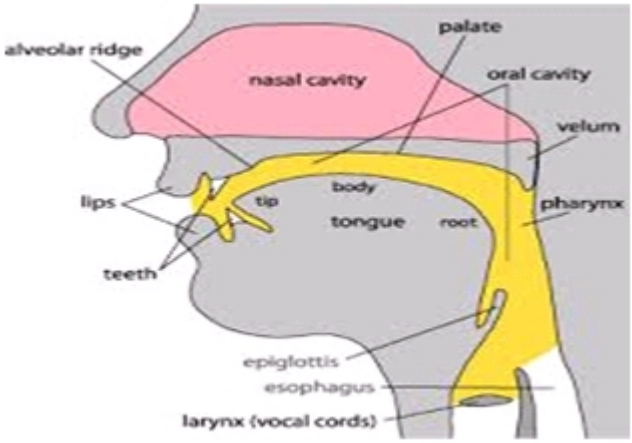

Fig. 1: Diagram of the organs of speech showing the pharynx
Source: https://www.google.com/search. Accessed on 30/11/2015

The Larynx

This organ of speech contains the vocal cord. Yule (2002) calls it the "voice box" which can act as "a resonator for any sound produced". Yule, however, laments that this organ of speech has the possibility for the human to choke on pieces of food thereby distorting the smooth production of sounds. Manette and Madrid (2015) state that:

> *The larynx is a rather wide pipe which is made up of two main cartilages. The lower cartilage which is called the cricoids is firmly connected with the wind pipe. The second cartilage, which is called thyroid lies on the cricoids and resembles two shields connected at an angle. The larynx inside is on the upper part of the signet and there are two small movable cartilages which are called pyramidal. These pyramidal are bundles of elastic muscles called vocal chords which are stretched out horizontally across the larynx from the bases of pyramidal cartilages.*

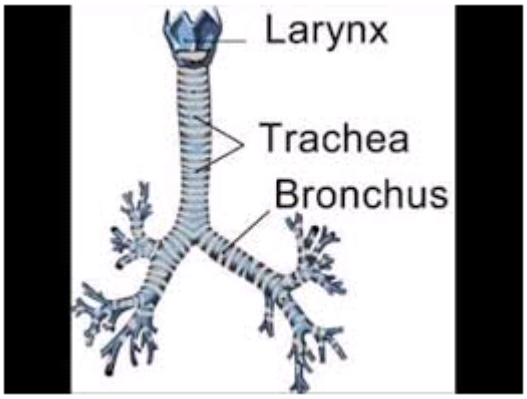

Fig 2: Diagram showing the larynx as an organ of speech
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The Tongue

This organ of speech is responsible for the production of sounds like the voiceless alveolar stop /t/, the voiceless dental fricative /è/ in words with sounds like *think, thank, thirty, thistles* or *faith* and the voiced dental fricative /"/ in words with sounds like *this, these, them, that* or *breathe*. The tongue also combines with the teeth to produce the voiceless alveolar fricative /s/ to produce words with sounds like *see, soon, so, sit,* soup. In addition, the tongue has three major parts as opined by Yule (2002) which are back, centre and front or four major parts as opined by Roach (2000) – tips, blade, front and back. Omachonu (2010) identifies the major divisions or parts of the tongue to include:

- The back – opposite the soft palate
- The centre – opposite the meeting point of hard and soft palate
- The front – opposite the hard palate
- The blade – the tapering area facing the ridge of the teeth
- The tip - the extreme (end) of the tongue

In addition, an online source, *www.pdffactory.com* explains that the tongue may be conventionally divided into blade, front, back, root; and the very front part of the tongue is called the tip. Manette and Madrid (2015) argue that glottis which is part of the tongue is an erect cartilage at the root of the tongue which lowers during swallowing to cover the glottis and this glottis is also called the epiglottis.

Fig 3: Diagram showing the Tongue as an organ of speech
Source: https://www.google.com/search. Accessed on 30/11/2015

The Lips

The lips, according to Omachonu (2010b) refer to the soft or fleshly edges of the opening of the mouth which includes the upper and the lower lips. An oral exercise involving the organs of speech will indicate that voiceless bilabial plosive sound /p/, voiced bilabial plosive /b/ and voiceless bilabial nasal /m/ are sounds produced with the involvement of the lips. Oral exercise involving the organs of speech will also indicate that the production of sounds involving voiceless labiodental fricative /f/ is partially assisted by the lips in producing sounds with /f/ as in words like *food, fin, fetch, phone, photograph, phoneme* and so on. Voiced bilabial /v/ sound is also produced with the help of the lower lip with examples in words like *van, vent, vouch, vehicle, vowel* among others. Also, Manette and Madrid (2015) opine that the lips serve for creating different sounds – mainly labial, bilabial e. g. /p/, /b/, /m/, /hw/, /w/ and labio-dental consonant sounds like /f/, /v/.

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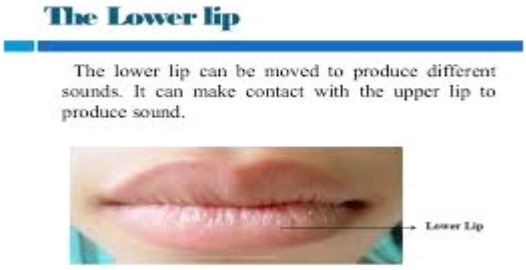

Fig 4: Diagram showing the Lips as an organ of speech
Source: https://www.google.com/search. Accessed on 30/11/2015

Teeth

The teeth are part of the organs of speech that make sound production easier in humans. Roach (2005) opines that the teeth are located in front of the mouth, immediately behind the lips, to the side of the mouth, back almost to the soft palate. Chukwuma and Otagburuagu (2002) are of the view that the teeth are static and not mobile like the tongue and sounds produced by the tongue and teeth are called interdental or dental sounds. A practical oral exercise will prove that the tongue also assists the teeth in sound production.

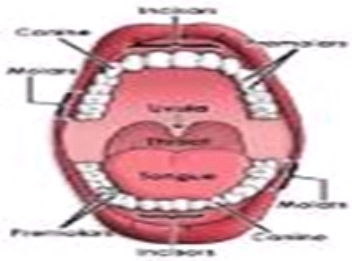

Fig 5: Diagram showing the teeth as an organ of speech
Source: https://www.google.com/search. Accessed on 30/11/2015

The Lungs

Gimson (1980) and Omachonu (2010) explain that the lungs are the power house needed for the production of speech sounds while Roach (2002) postulates that the lungs are like sponges that can feel the air, and they are contained within the rib cage.

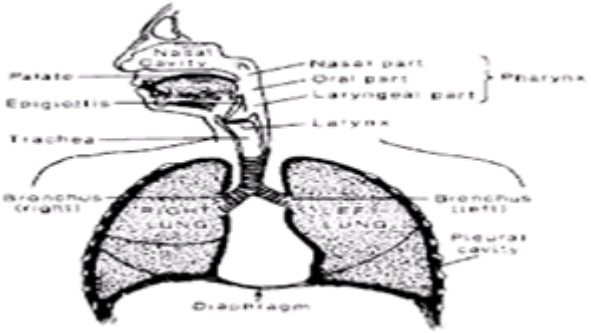

Fig 6: Diagram showing the Lungs as an organ of speech
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The Vocal Chords

The vocal chords are responsible for the voicing of speech sounds. Voicing in the vocal chords could either be voiced or voiceless. The voiced sounds are seven and they include: /b/, /g/, /d3/, /z/, /v/, /ð/, /3/. Examples of words with the voiced sounds include: bag, badge, goat, goal, judge, jump, zinc, zip, van, vouch, this, these, treasure, pleasure. These other seven sounds can be regarded as voiceless because no vibration takes place in the vocal chord during sound production: /k/, /f/, /l/, /m/, /p/, /+"/, /t+"/. Examples of words from these voiceless sounds are: /keen/, /keep/, /food/, /full/, /lamp/, /land/, /man/, /map/, /pool/, /people/, /shape/, /shake/.

Fig 7: The diagram of vocal chord
Source: https://www.google.com/search. Accessed on 30/11/2015

The Velum

The velum or soft palate has holes performing that function during speech to separate the oral cavity which is the nose in order to produce the oral speech sounds. Manette and Madrid explain that if this separation is incomplete, air escapes through the nose during speech and the speech is perceived as hyper nasal.

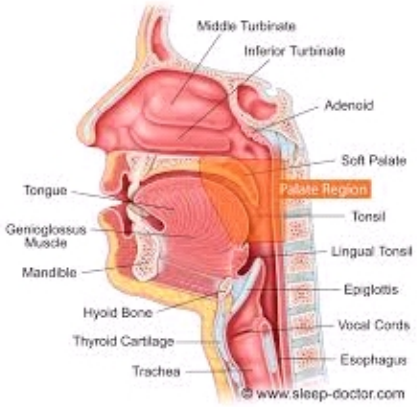

Fig 8: Diagram showing the Velum as organ of speech
Source: https://www.google.com/search. Accessed on 30/11/2015

The Palate

Omachonu (2010b) reports that the palate forms the entire roof of the mouth that separates the oral cavity from the nasal cavity which includes the alveolar ridge, the hard palate and the soft palate. Omachonu points out further that:

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the alveolar is that part of the gum immediately behind the upper front teeth whereas the hard palate is that region which is the highest part of the palate, lying between the alveolar ridge and the take off of the soft palate in which the tip of the tongue can be used to touch the hard palate as in the production of palatal sounds and high vowels while the alveolar ridge is important because many of the consonant sounds like /t/, /d/, /s/, /z/, /l/, /n/, /r/ are realized with the tongue touching or close to the alveolar ridge.

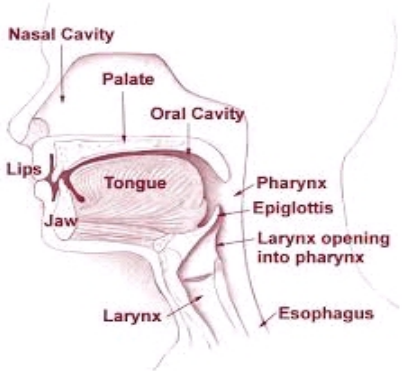

Fig 9: Diagram showing the palate as organ of speech
Source: https://www.google.com/search. Accessed on 30/11/2015

The Ear

Although the ear is not a major organ of speech, it is important in the production of speech sounds as www.pdffactory.com clearly states that the main organ of hearing is the ear, with the help which speech is heard and interpreted; and the human ear may be divided into three – the outer, the middle and the inner ear. According to www.pdffactory.com, the outer ear plays a protective role for the middle ear and functions as a resonator while the middle ear is a cavity within the skull and plays an important role as a protector of the inner ear and transmit the mechanic vibrations of the membrane further the inner ear which is the complicated section of the ear. The other sections of the ear include the semicircular canals with the cochlea, filled with liquid and inside the cochlea are two membranes.

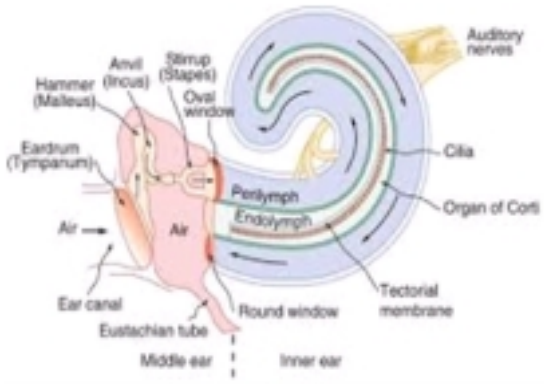

Fig 10: Diagram showing the Ear as an organ of speech
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Consonants in Manner and Place of Articulation

Manner of Articulation

This implies how this group of consonant sounds is produced in communication. Consonant sounds in manner of articulation include plosives, fricatives, affricates and semi vowels or approximants.

Manner of Articulation	**State of Glottis**		**Place of Articulation**
Plosives	**Voiceless**	**Voiced**	
	p	b	bilabial
	t	d	alveolar
	k	g	velar
Nasals		m	bilabial
		n	alveolar
		ŋ	velar
Fricatives	f	v	labio-dental
	θ	ð	dental
	s	z	alveolar
	ʃ	3	*post alveolar*
	h		glottal
Affricate	tʃ	d3	post alveolar
Semi-Vowels/	lateral/liquid	l	alveolar
Approximants		r	alveolar
		w	bilabial
		j	palatal

Source: Roach (2000:64)

Effective Teaching of Organs of Speech

For the students of second or foreign language to understand the functions of organs of speech properly, the teacher needs to demonstrate different methods to make the students understand the organs of speech. Okwudishu (1996) highlights on instructional materials in teaching second, foreign or indigenous languages to include radio, television, slides, filmstrips, motion pictures, transparencies, computers, videodiscs, language laboratories, newspapers, magazines and so on out of these instructional materials, as pointed out by Okwudishu (1996), the following would help the teacher in teaching organs of speech more effectively. Language laboratory, television, computers, slides, motion pictures, videodiscs, filmstrips. These are audiovisual materials and so, they can help the students to understand clearly because it is not just the hearing but vision and clarity are involved. Similarly, language teachers need to update their knowledge of the use of these materials regularly, especially, the language laboratory, motion pictures, slides, videodiscs.

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CONCLUSION AND RECOMMENDATIONS

From the findings of this work, effective communication cannot take place without the involvement of the respective organs of speech; therefore, teachers of phonetics and phonology (English) need to diversify their methods of teaching this course so that the students can be competent in English as a second or target language.

1. The teaching of organs of speech to any level of students should be very practical.
2. Appropriate instructional materials like audio – visuals will help students understand faster and easier.
3. The language laboratory should be used effectively in teaching the organs of speech
4. To teach organs of speech effectively, teachers need to be trained in the effective use and operations of the language laboratory.
5. The government should equip language laboratories in tertiary institutions in the country; this would enable teachers of phonetics and phonology teach related topics well.

REFERENCES

Chukwuma, H. and **Otagburuagu, E.** (2002). *English for Academic Purposes.* Onitsha: Africana-Fep Publishers

Gimson, A. C. (1980). *An Introduction to the Pronunciation of English.* London: Routledge

Ladefoged, P. and **Johnson, K.** (2011). A Course in Phonetics. Wadsworth, U. K: Cengage Learning

Manette, A. and **Madrid, A.** (2015). The organs of Speech and Their Functions. Accessed online at martzmonette@yahoo.com. Retrieved on 24/09/2015

Okwudishu, C. (1996). *Media, Culture and Local Language Teaching: Implications for Democracy and National Development.* In Omole, K., Okwudishu, A. and Junaidu, I. (eds) *Language, National Unity and Democratisation Process.* Department of English, Abuja University, Nigeria, National Library of Cataloguing Publications Data.

Omachonu, G. S. (2010a). *Fundamentals of English Phonetics and Phonology*. Enugu: Rossen Publications Ltd

Omachonu, G. S. (2010b). *Phonetics and Phonology*. In Omachonu, G. S. (ed) *NSUK General Linguistics.* Enugu: Rossen Publications Nigeria.

Roach, P. (2000). *English Phonetics and Phonology.* Cambridge: University Press.

Saleh, A. J. (2007). The Phonological Interference Experienced by Mada Students Learning English as a Second Language. An M.Ed Dissertation submitted to Department of English, University of Abuja, Nigeria

Williams, D. (1990). *English Language Teaching: An Integrated Approach.* Ibadan: Spectrum Books Ltd, Nigeria.

Yule, G. (2002). *The Study of Language*. Cambridge: University Press.

https://www.google.com/search. Retrieved on 30/11/2015

www.pdffactory.com. Retrieved on 21/09/2015

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