

Unit Two: How the Speech Organs Work in English

Lecture (11): Basic Phonetic Terms

Teacher: Professor Ayad Hammad Ali

Department: Dept. of English

College: Arts

Stage: First

Course: First

Subject: Pronunciation

Unit: Two (How the Speech Organs Work)

Lecture's Title: Basic Phonetic Terms

Academic Year: (2022-2023)

Lecture No.: (11)

اسم التدريسي: أ.أياد حماد علي

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الكلية: الآداب

المرحلة: الأولى

الفصل الدراسي: الأول

المادة الدراسية: التلفظ

الوحدة الدراسية: الثانية (كيف تعمل أعضاء الكلام البشرية)

عنوان المحاضرة: مصطلحات صوتية أساسية

العام الدراسي: 2022 - 2023

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Unit Two: How the Speech Organs Work in English

Defining Phonetics:

It is the scientific study of human speech sounds. It is subdivided into Four branches:

- 1. Articulatory Phonetics:** it is a branch of linguistics which studies how speech sounds are made.
- 2. Auditory Phonetics:** it studies how sounds are perceived by the human ear and brain.
- 3. Acoustic Phonetics:** it studies the sound waves and their properties and how they are transmitted.
- 4. Experimental/Instrumental Phonetics:** it adopts instrumental techniques and devices in order to analyze some aspects of sound making, transmission, and perception.

BBC English is the standard pronunciation of southern British English that is traditionally used by announcers on the BBC (British Broadcasting Corporation).

RP is an abbreviation for the phrase Received Pronunciation is a way of pronouncing British English which is often considered to be the standard accent.

Dialect refers to a variety of a language that contains distinctive variations in grammar, vocabulary and pronunciation.

Accent refers to the variations in the pronunciation only.

Phonemic Transcription is a system used for using letters or symbols to represent sounds in speech, such as ‘feel’ /fi:l/, change /tʃeɪndʒ/.

Minimal Pair means two words that are the same, but they differ only in one sound initially or medially or finally, such as ‘fan’ /fæn/ , ‘van’ /væn/, ‘fast’ /fɑ:st/, ‘past’ /pɑ:st/, ‘seat’ /si:t/ and ‘sit’ /sɪt/.

International Phonetic Alphabet (IPA) is an alphabet developed in the 19th century to accurately represent the pronunciation of languages. The (IPA) aims at providing a unique symbol for each distinctive sound in a language.

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Lecture (12): Divisions of Human Speech Organs

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Lecture No.: (12)

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Human Organs of Speech are divided into:

A. Movable Organs: they make movements when they produce certain sounds, upper lip, lower lip, and tongue.

B. Unmovable Organs: they don't make any movements when they produce certain sounds, they include the upper teeth, lower teeth, and palate.

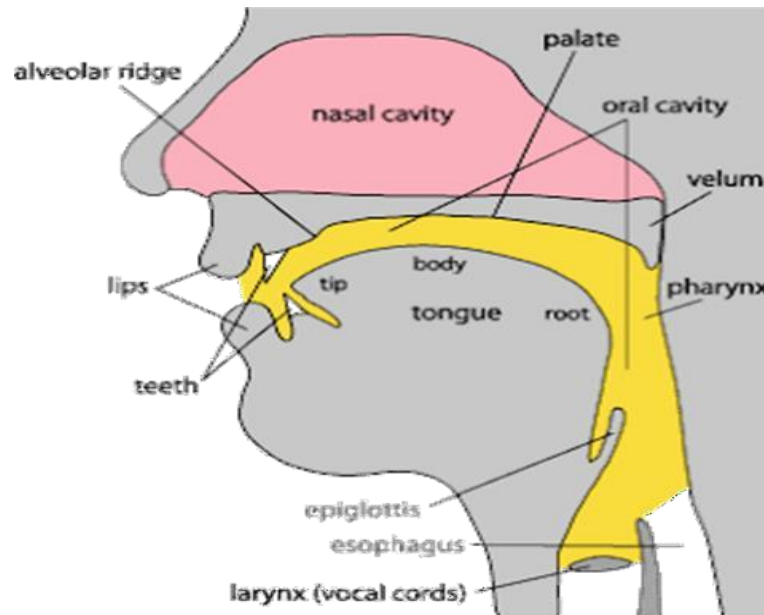


Figure (1): The Speech Organs

Definitions of Organs of Speech

1. Vocal Cords

They are two small bands of elastic tissues placed in the larynx, which lies opposite to each other across of the air passage; they are also called (vocal folds). The inner edges of the vocal cords can be moved towards each other so that they meet each and completely cover the top of the wind pipe or can be drawn apart so that there is a gap between them known as the **glottis** through which the air can pass freely.

When the vocal cords are brought together tightly no air can pass through them and if the lungs are pushing air from below, this air is compressed. If the vocal cords are then opened suddenly the compressed air bursts out with a sort of coughing noise. So holding back of the compressed air followed by a sudden release is called the glottal stop.

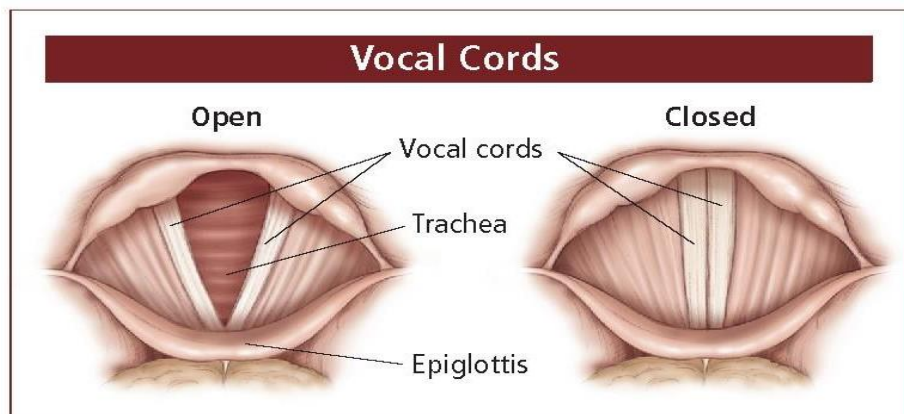


Figure (2): Open and Closed Vocal Cords

The difference between voiced consonant sounds and voiceless consonant sounds.

A. Voiced Sounds are made with the vibration of the vocal cords, producing consonants like (b,d,g,v,z, ð, dʒ, l,m,n, ŋ,r,w,y).

B. Voiceless Sounds are made without the vibration of the vocal cords, producing the consonants (p, t, k, f, θ, s, ʃ, tʃ, h).

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Teacher: Professor Ayad Hammad Ali

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Unit: Two (How the Speech Organs Work)

Lecture's Title: Movable vs. Unmovable Organs

Academic Year: (2022-2023)

Lecture No.: (13)

اسم التدريسي: أ.أياد حماد علي

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2. Larynx is the area of the throat containing the vocal cords and used for breathing, swallowing, and talking. It is also called voice box.

3. The Palate

The palate forms the roof of the mouth and separates the oral cavity from the nasal cavity. The palate basically consists of two sections: the hard section and soft section (soft palate) or sometimes called velum /'vi:ləm/. The hard palate is an unmovable part which consists of two parts too, the alveolar ridge which lies behind the upper teeth immediately, and the hard palate which is the highest part that lies between the alveolar ridge and the beginning of the soft palate. The alveolar ridge is especially important in English because many of the consonant sounds such as / t, d, n, l, r, s, z, ʃ, dʒ, ʒ, tʃ/ are produced by the tongue touching or close to the alveolar ridge.

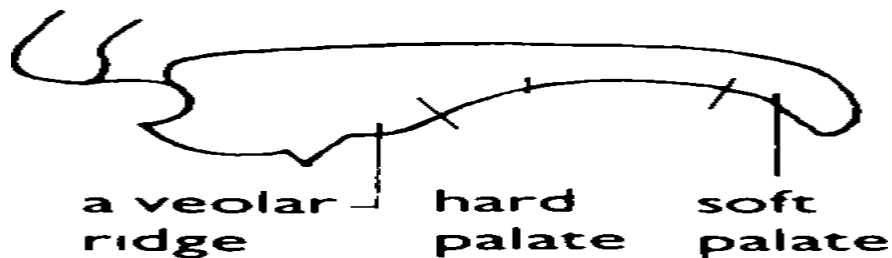


Figure (3): Parts of the Palate

On the other hand, the soft palate is a movable part that contains the uvula /'ju:vjələ/, which is the hanging part of the soft palate.

When the soft palate is raised, it closes the way to the nasal cavity, hence the air stream passes through the mouth only and producing all the consonant sounds except /m,n, ŋ/. But if the soft palate is lowered, the airstream will be allowed to pass through the nasal cavity, making the air come out from the nose. In this lowered position of the soft palate, three sounds are produced only through the nose /m,n, ŋ/, which are called nasal sounds or nasals.

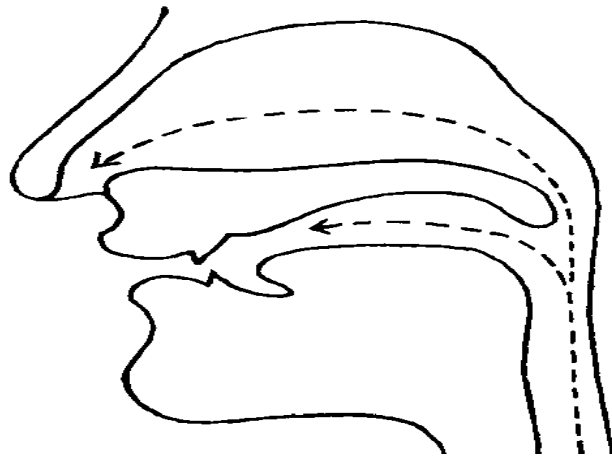


Figure (4): When the Soft Palate Lowered

4. The Teeth

The teeth are subdivided into two parts; the upper teeth and lower teeth. The upper front teeth are used in the production of certain sounds. The consonant sounds / θ/ and / ð/ are produced when the tip of the tongue comes very close to the edge of both upper and lower teeth as seen practically in the word ‘thin’ /θɪn/ and /ðɪs/. /f/ and /v/ are produced when the lower lip contacts with the upper teeth as in the words ‘fox’ /fɒks/ and the word ‘van’ /væn/.

5. The Tongue

The tongue is the most important speech organ because it performs the greatest variety of movements. It is divided into four parts: tip, blade, front, and back. The back of the tongue lies under the soft palate, the front lies under the hard palate, while both the tip and the blade lie under the alveolar ridge. The tip and blade are particularly mobile as such they can touch the whole of the lips, the teeth, the alveolar ridge and the hard palate.

6. The Lips

The lips are movable organs of speech that can take up various different shapes when producing certain speech sounds.

7. Pharynx is a five-inch long tube that starts near nose and ends at windpipe.

8. Esophagus is a muscular tube connecting the throat (pharynx) with the stomach.

9. Wind pipe is the tube for breathing which connects the larynx to the lungs.

10. Epiglottis is the flap that covers the trachea during swallowing, so that food does not enter the lungs.

11. Glottis is the opening between the vocal cords at the upper part of the larynx.

Three: The Consonants of English

Lecture (14): Places of Articulation

Teacher: Professor Ayad Hammad Ali

Department: Dept. of English

College: Arts

Stage: First

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Subject: Pronunciation

Unit: Three (The Consonants of English)

Lecture's Title: Places of Articulation

Academic Year: (2022-2023)

Lecture No.: (14)

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الوحدة الدراسية: الثالثة (الاصوات الإنجليزية الصحيحة)

عنوان المحاضرة: مخارج نطق الاصوات الصحيحة

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Unit Three: The Consonants of English

English consonants are classified according to three dimensions:

A. Place of Articulation

B. Manner of Articulation

C. Voicing

Place of Articulation

The place at which two speech organs approach or come together when producing a given sound as in the contact of the lower lip with the upper teeth to form a labio-dental sound like /v/. English consonants can be categorized to this feature, as shown below:

1. Bilabial means the upper lip contacts with lower lip, forming a closure and producing three consonants /p, b, m/.

/p/ as in **p**urse /pɜ:s/

/b/ as in **b**ack /bæk/

/m/ as in **m**ad /mæd/

2. Labio-dental involves the contact of lower lip with upper teeth to produce the consonants /f/ and /v/.

/f/ as in **cal**f /kɑ:f/

/v/ as in **v**ine /vaɪn/

3. Dental (Interdental) means the sounds that are produced due to the contact of the tip of the tongue with the upper teeth, making the two sounds /θ/ and /ð/.

/θ/ as in **th**ick /θɪk/

/ð/ as in **th**ey /ðeɪ/

4. Alveolar refers to the sounds which are produced when the tip and blade of the tongue raise to contact the alveolar ridge to constrict the airflow and produce the sounds /t, d, s, z, l, n/.

/n/ as in **n** /mæn/

/t/ as in **t**ip /tɪp/

/d/ as in **b**ad /bæd/

/s/ as in **s** /bʌs/

/z/ as in **jazz** /dʒæz/

/l/ as in **l**uck /lʌk/

5. Post-alveolar means the consonants that are produced when the tongue blocks or constricts airflow at the point just beyond the alveolar ridge. English post-alveolar consonants include /ʃ, tʃ, ʒ, dʒ/.

/ʃ/ as in **sh**ot /ʃɒt/

/ʒ/ as in **measur**e /'meʒə(r)/

/tʃ/ as in **ch**ick /tʃɪk/

/dʒ/ as in **j**am /dʒæm/

/r/ as in **r**ight /raɪt/

6. Palatal refers to the contact of the tongue with the hard palate in order to produce the palatal consonant /j/.

/j/ as in **yes** /jes/

7. Velar is the production of the velar consonants / k, g, ŋ, w/ which are performed through raising the back of the tongue with the soft palate (velum) firmly.

/k/ as in **back** /bæk/

/g/ as in **bag** /bæg/

/w/ as in **wet** /wet/

8. Glottal means consonants are produced when the stream of air passing through the glottis is obstructed by the closed or narrowed vocal cords and then released. They include /h/ and /ʔ/.

/h/ as in **high**

/ʔ/ in the phrase wha(t) time is it? the /t/ in what is dropped and the vowel sound before it is closed at the glottis.

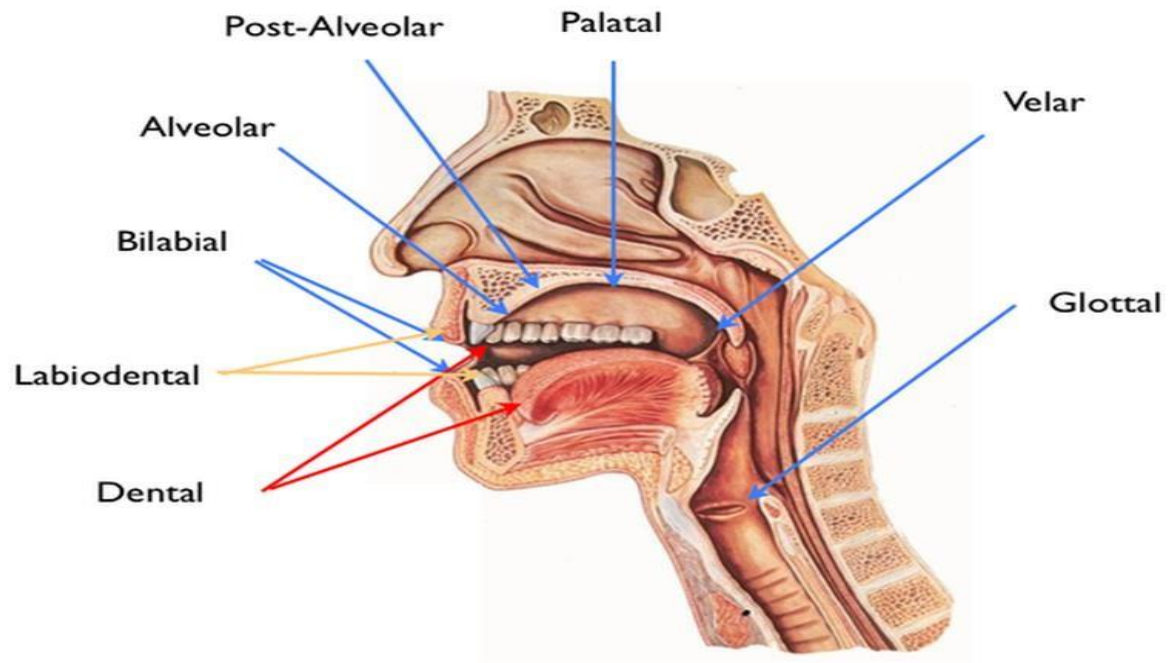


Figure (5): Places of Articulation of English Consonants

Three: English Consonants

Lecture (15): Manners of Articulation

Teacher: Professor Ayad Hammad Ali

Department: Dept. of English

College: Arts

Stage: First

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Unit: Three (English Consonants)

Lecture's Title: Manners of Articulation

Academic Year: (2022-2023)

Lecture No.: (15)

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الوحدة الدراسية: الثالثة (الاصوات الإنجليزية الصحيحة)

عنوان المحاضرة: حال نطق الاصوات الصحيحة

العام الدراسي: 2022 - 2023

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Classification of English Consonants

Manners of Articulation	Places of Articulation							
	Bilabial	Labio-dental	Dental	Alveolar	Postalveolar	Palatal	Velar	Glottal
Stops (Plosives)	p (V-)			t (V-)			k (V-)	
	b (V+)			d (V+)			g (V+)	
Fricatives		f (V-) v (V+)	θ (V-) ð (V+)	s (V-) z (V+)	ʃ (V-) ʒ (V+)			h (V-)
					tʃ (V-) dʒ (V+)			
Nasals	m (V+)			n (V+)			ŋ (V+)	
Lateral				l (V+)				
Gliding	w (V+)				r (V+)	j (V+)		

The description of the English consonant is to give the place, manner of articulation and voicing of the sound in question. For example describe the following consonants:

P

Place: Bilabial

Manner: Stop

Voicing: Voiceless (V-)

V

Place: Labio-dental

Manner: Fricative

Voicing: Voiced (V+)

Aspiration is the strong burst of air that accompanies the release of some stop consonants /p,t,k/ that occur at the beginning of the words or stressed syllables. It is represented by /h/ sound like whispering.

1. **pin**, /pɪn/ → /p^hɪn/, /p/ is aspirated, but if /p/ is preceded by an initial /s/ like **spin** → /spɪn/, the /p/ sound is called unaspirated.

2. **kin** /kɪn/ → /k^hɪn/, /k/ is aspirated, but if /k/ is preceded by an initial /s/ like **skin** → /skɪn/, the /k/ sound is called unaspirated.

3. **top** /tɒp/ → [t^hɒp], /t/ is aspirated, but if /t/ is preceded by an initial /s/ like **stop** → /stɒp/, the /t/ sound is called unaspirated.

B. Manner of Articulation

Manner of articulation refers to the type of closure made by the different organs of speech, namely it is the way the airstream is affected as it flows from the lungs and goes out from the nose or mouth. The manners of the English consonants are explained below:

1.Stops (plosives) are produced by means of a complete closure of the air passage, but after a while is released with an explosion of the air outside the mouth. The stops are /p, b, t, d, k, and g/.

2. Fricatives are produced with audible friction by letting the airstream pass through a narrow opening where it causes friction of various kinds between the articulators involved in the production of such sounds. They are nine /f, v, θ, ð, s, z, ʃ, ʒ, h/

3.Affricates are the sounds that begin like stops and end like fricatives. The English affricates are /tʃ, dʒ/.

4. Nasals are sounds which are produced when the soft palate is lowered, the airflow goes through the nose because the oral cavity is blocked to produce three nasal sounds / m, n, ŋ/. So, in all the nasal consonants, the soft palate is lowered.

Syllabic consonant is the syllable that contains only consonant without a vowel in between. Syllabic consonants are / m, n, ŋ, l/, and phonetically they are represented by a small dot /./ under the consonant.

Syllabic / ŋ /, button /'bʌtən/ → /'bʌt_ŋ/

Syllabic / m /, blossom /'blɒsəm/ → /'blɒs_m/

Syllabic / ŋ /, broken /'brəʊkən/ → /'bɹəʊk_ŋ/

Syllabic / l /, bottle /'bɒtəl/ → /'bɒt_l/

Syllabic / r / veteran /'vetərən/ → /vet_r ŋ/

5. Lateral (Liquid) is produced when the tongue blocks the middle of the mouth, thus the airstream is able to escape between both sides of the tongue and palate and outside the mouth. There is only one lateral consonant /l/. This lateral sound is often syllabic as in travel → /'trævəl/ → /'træv_l/, which is usually dark.

Show the difference between the **light** /l/ and the **dark** /l/ :

(a). The light (clear) /l/ appears before the vowel sound (L +Vowel), as in 'light' /laɪt/, like /laɪk/, please /pli:z/

(b). The dark /l/ comes after the vowel sound in final positions, as in 'field' /fi:ld/, small /smɔ:l/, call /kɔ:l/.

6. Gliding Consonants (Approximants)

There are three consonants which are called gliding or semi vowels or (Approximants) because they quickly and smoothly glide towards a following vowel sound. They are:

/j/ glides from the position of the vowel /i:/ or /ɪ/ to any vowel. We usually transcribe the word ‘yes’ as /jes/, but we might easily transcribe it as /i:es/ or /es/ because the sound /i:/ or /ɪ/ is very short and that we move smoothly and quickly to the following vowel /e/.

/w/ is difficult for Germans, Dutch and many Indians who pronounce it /v/ not /w/. Those people tend to replace /w/ by /v/.

In RP /r/ occurs before vowels and never comes before consonants, thus words like ‘learn’, ‘sort’ and ‘farm’ do not contain /r/ /lɜ:n/, /sɔ:t/, /fɑ:m/, but other varieties of English pronounce /r/ in these words, such as American, Scottish, and Irish varieties). Linking /r/ means the gliding consonant which is placed between two words where the first word ends with a vowel and the beginning of the second word starts with a vowel sound, too, such as the phrase ‘never again’ /nevə r əgen/. Other examples which have no original /r/, but it is inserted between them:

Africa and Asia /æfrɪkə r ən eɪʃə/, **Linda and Ann** /lɪndə r ən æn/

Three: English Consonants

Lecture (16): Voicing of Consonants

Teacher: Professor Ayad Hammad Ali

Department: Dept. of English

College: Arts

Stage: First

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Subject: Pronunciation

Unit: Three (English Consonants)

Lecture's Title: Voicing of Consonants

Academic Year: (2022-2023)

Lecture No.: (16)

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الوحدة الدراسية: الثالثة (الاصوات الإنجليزية الصحيحة)

عنوان المحاضرة: جهورية الاصوات الصحيحة

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C. Voicing

The vocal cords may be held against each other at just the right tension so that the air flowing past them from the lungs will cause them to vibrate against each other. We call this process voicing. Sounds which are made with the vibration of the vocal cords are voiced, whereas the sounds made without the vibration of the vocal cords are voiceless.

No.	Voiceless	Voiced
1	p	b
2	t	d
3	k	g
4	f	v
5	θ	ð
6	s	z
7	ʃ	ʒ
8	tʃ	dʒ
9	h	m
10		n
11		ŋ
12		l
13		r
14		w
15		j

The table below explains the phonetic differences between each pair of consonant. Some consonants make frictions when producing them, i.e., they have strong friction or weak friction with long or short length of producing the sound. It is known that the lip and teeth are causing the friction.

Sound	Voicing	Friction	
		Strength	Length
/f/	Voiceless	Strong	Long
/v/	Voiced	Weak	Short
/θ/	Voiceless	Strong	Long
/ð/	Voiced	Weak	Short
/s/	Voiceless	Strong	Long
/z/	Voiced	Weak	Short
/ʃ/	Voiceless	Strong	Long
/ʒ/	Voiced	Weak	Short
/p/	Voiceless	Strong	Long
/b/	Voiced	Weak	Short
/t/	Voiceless	Strong	Long
/d/	Voiced	Weak	Short
/k/	Voiceless	Strong	Long
/g/	Voiced	Weak	Short
/tʃ/	Voiceless	Strong	Long
/dʒ/	Voiced	Weak	Short
/m/	Voiced	Weak	Short
/n/	Voiced	Weak	Short
/ŋ/	Voiced	Weak	Short
/l/	Voiced	Weak	Short
/r/	Voiced	Weak	Short
/j/	Voiced	Weak	Short

/w/	Voiced	Weak	Short
/h/	Voiceless	Strong	Long

Four: Consonant Sequences

Lecture (17): Types of Consonant Sequences

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College: Arts

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Subject: Pronunciation

Unit: Four (Consonant Sequences)

Lecture's Title: Types of Consonant Sequences

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عنوان المحاضرة: أنواع سلسلة الاصوات الصحيحة

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Unit Four: Consonant Sequences

Consonant Sequence means a set of consonants which have no vowel between them. The consonant sequence or consonant cluster has different forms which are explained below:

4.1 Initial Sequences

1. Sequences of Two Consonants Initially

They are of two kinds:

(a). /s/ is followed by one of /p, t, k, f, m, n, l, w, j/, such as (spy, stay, sky, sphere, small, snow, sleep, swear, suit).

(b). When one of /p, t, k, b, d, g, f, θ, ʃ, v, m, n, h/ is followed by one of /l, r, w, j/, it forms a sequence of two consonants, such as (play, try, twice, tune).

2. Sequences of Three Consonants Initially

These sequences have three initial consonants which are started with /s/ sound, such as:

Spread /spred/

Straight /streit/

Screw /skru:/

4.2. Final Sequences

In such kinds of final sequences, the word consists of two final consonants without being intervened by any vowel sound, such as:

1. Two Consonants:

Sle^{pt} /sle^{pt}/ Fact

fæ^{kt}/ Breadth

/bre^{dθ}/

Ke^{pt} (stop+stop) /ke^{pt}/ Act

(stop+stop) /æ^{kt}/

2. Three Consonants:

Best man /best mæn/ help me /hel^p mi:/ Fix

this /fiks ðis/ tall tree /tɔ:l tri:/

3. Four Consonants

Big splash /bɪg splæʃ/ Twelfth

night /twelfθ naɪt/

4. Five Consonants Prompt

start /prɒm^{pt} stɑ:t/ Bent spring

/bent sprɪŋ/

5. Six Consonants

Next spring /nekst sprɪŋ/ Twelfth

street /twelfθ stri:t/

6. Seven Consonants

The text's stupid / ði tek^{sts} stju:pɪd/

She tempts strangers /ʃi: tem^{pts} streɪndʒəz/