



People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

Ibn Khaldoun University of 'Tiaret'

Faculty of Letters and Foreign Languages

Department of Foreign Languages

English Section

Course Title:

English Articulatory Phonetics

A blended Course designed for First year (LMD) EFL Students

Dr. Abdelhadi Amina

2021-2022

Course Guide

1. Course General Information.....	01
2. Course Description.....	02
3. Course Content.....	03
4. Course Requirements (Pre-requisites & Core-requisites).....	05
5. Course Monthly Schedule.....	06
6. Course Objectives.....	10
7. Assessment Methods and Grading Policies.....	11
8. Course Instructional Materials.....	12-13

1. Course General Information

Course Title	English Articulatory Phonetics
Course Format (Delivery Mode)	Blended (Hybrid)
Access to the Course	https://moodle.univ-tiaret.dz/phoneticscourse
Target Audience	First Year (LMD) Students of English
Credit(s)	2
Coefficient(s)	1
Semester hourly volume	21 hours
Contact hours per week	1h30
Evaluation/Assessment Methods	Quizzes, Assignment and written Exam
Class Type	
Course Developer	Tutorial (Theory and Practice) Dr. Abdelhadi Amina Section of English, Faculty of Letters & Foreign Languages, Ibn Khaldoun University of Tiaret, Algeria
Holder of Doctorate Degree in	Gender Studies, Sociolinguistics and Language Diversity
Period of Teaching Phonetics	September 2019
Contacts	Abdelhadiprof@gmail.com amina.abdelhadi@univ-tiaret.dz +213667219360
Course Coordinator	Dr. Hemaidia Mohamed Ibn Khaldoun University of Tiaret, Algeria



2. Course Description

English Articulatory phonetics, a course tailored to the workload of two semesters, aims to help first year (EFL) university students (i) familiarize themselves with the basics of English phonetics, and (ii) acquire the knowledge necessary to understand and use the accent that is most recommended for foreign learners studying British English, and which has been identified by the name ‘Received Pronunciation’ (usually abbreviated to its initials, **RP**). Built around an extensive collection of cited and acknowledged works, terminology of this course is advanced in a carefully staged manner, without going into more depth than the average the target learners require to pronounce RP English sounds correctly. Key terms of this course include: *RP pronunciation, sounds, letters, phonetics, phonology, human speech mechanism, vowels, consonants, syllable structure and stress.*

Given the fact that there is currently an urgent shift to the online instructional environment, this course is delivered in a hybrid format, meaning that part of it is delivered in ‘face-to-face’ tutorial classes, and the other part is online (through Moodle, the LMS platform adopted by Ibn Khaldoun University of Tiaret (Algeria)). Rather than sitting in the classroom for several hours straight every week, the online component of this course is meant to provide the target learners with some flexibility to reflect on the delivered lectures and keep conversations going on the discussion board throughout the week.

This course mixes various teaching techniques, learning styles, and delivery methods. It combines classroom meetings with the content delivered via online platform so that students interact with the content and engage in the learning activities before, during, and after the in-class meetings linked to the course. Faculty presence is important; students should attend concise lectures to be prepared for what is coming up in online sessions. They should not consider the scheduled online meetings as being ‘off’, but rather switch into a different learning environment to view SCORM packages, study narrated PowerPoint presentations (slideshows), upload relevant study aids files, visit web links (URL), attempt quizzes, submit assignments by the due dates and participate in workshops (collaborative learning) and discussion forums as well.

Considering the design and the delivery mode opted for, this course is open to diverse approaches and strategies, but relying most on the constructivist learning philosophy that

centers on the idea of building understanding using prior knowledge and new experiences. This course also allows considerable time and opportunity for practice, and hence it puts a great emphasis on the grading policies of the relevant ‘in class and out-of-class (online)’ learning activities.

What follows provides additional details about what you can expect to learn from this course, what requirements you are expected to complete before and simultaneously with this course, how you can be successful and achieve best your learning outcomes, what course materials you will use and how you can work your way through the materials.

3. Course Content

English Articulatory Phonetics hybrid course is designed to be studied from beginning to end. It is made up of **six** units; each unit comprises inseparable lessons with ‘in- class’ self-assessment exercises and an online assessment link (for accessing quiz questions and assignments on Moodle) that are meant to be done parallel to each lesson. **Unit 1** provides basic concepts (preliminaries) as common prerequisites for all the other units¹. **Unit 2** serves as an introduction whose purpose is to explain the difference between the fundamental concepts of ‘phonetics and phonology’. **Unit 3** deals with the anatomy and physiology of human speech production. **Unit 4** and **Unit 5** are concerned with the production, classification and description of RP English phonemes (vowel and consonant sounds). **Unit 6** is devoted to the discussion of syllable structure and word stress rules. This course ends with a list of abbreviation, a glossary of terms, and a list of references and suggested further reading.

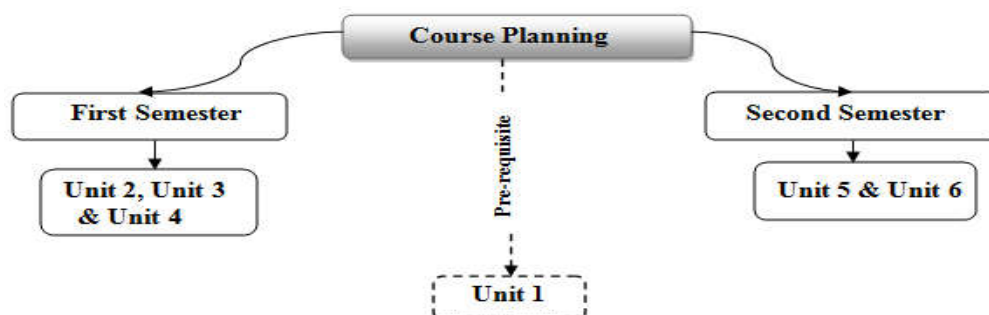


Figure 1. English Articulatory Phonetics Course Planning

¹ Please see Course Requirements p.05

4. Course Requirements (Pre-requisites & Core-requisites)

English Articulatory Phonetics course is connected to every other course first year EFL university students might learn. General linguistics, for example, is an integral introductory part of phonetics, and therefore it can be a recommended *core-requisite* course students need to take. Most importantly, as pronunciation is one of the skills involved in learning any language, some of this course overlaps with what is covered in other courses of the four English language receptive and productive skills: speaking, listening, writing and reading. Notice also that this course can be a *prerequisite* for students who study English phonology course.

📁 Before beginning the course of English Articulatory phonetics, learners are required to:

- a. Have knowledge about the status and role of English language in the world today (English as an International Language, World Englishes, RP English···)
- b. Use some key terms in Linguistics (basic questions of what linguistics is, branches of linguistics, dialect, accent···)
- c. Identify vowel sounds and vowel letters occurring in any given word.

This is the minimum prior knowledge required for this course and to verify it, a brief diagnostic pre-test² must be taken.

👉 **Orientation (assistance)** (*extra courses to take or chapters to read*): There are other avenues to help students who fail to meet the requirements which in turn may negatively impact their participation in the course.

📄 Please note that **Unit 1** of this course serves as a *remedial instruction (after the pre-assessment)* for students lacking the required critical prior knowledge.

Details of the course prerequisites and each semester study units are shown below in the course monthly schedule.

² Non-graded assessment test used to determine pre-existing subject knowledge (*please refer to the assessment methods and grading policies section*).

5. Course Monthly Schedule

📖 Pre-requisites					
1. Preliminaries	1.1.	English Language Worldwide		16	
		1.1.1. English Varieties: Dialect vs. Accent		16	
		1.1.2. Received Pronunciation Accent		17	
	1.2.	Mediums of English Language		18	
		1.2.2. Spoken and Written Mediums		18	
		1.2.3. Letters and Sounds		19	
	1.3.	Self-assessment Exercises		21	
	1.4.	Reflective Exercises		23	
	1.5.	Online Quiz and Assignment Link		23	
	⌚ I. First Semester Study Units				
October	2.	Introduction to Phonetics	2.1.	Phonetics: A Core Area of Linguistics	26
				2.1.1. Definition of Phonetics	28
				2.1.2. Branches of Phonetics	28
				2.1.3. The Interface between Phonetics and Phonology	29
				2.1.4. Phone, Phoneme and Allophone	30
			2.2.	Transcription	32
				2.2.1. The International Phonetic Alphabet	33
				2.2.2. Phonemic and Phonetic Transcriptions	34
				2.2.3. Phonetic Diacritics	34
			2.3.	Self-assessment Exercises	35
			2.4.	Reflective Exercises	36
			2.5.	Online Quiz and Assignment Link	36


November	3. Human Speech Mechanism	3.1. Speech Organs	38
		3.1.1. Articulators above the Larynx: Active and Passive Articulators	41
		3.1.2. Functions of Speech Organs: Primary and Overlaid functions	43
		3.2. Processes of Human Speech Sounds Production	44
		3.2.1. Mental Process	44
		3.2.2. Initiation Process	44
		3.2.3. Phonation Process	45
		3.2.4. Oral-nasal (Resonation) Process	46
		3.2.5. Articulation Process	46
		3.3. Self-assessment Exercises	47
		3.4. Reflective Exercises	48
		3.5. Online Quiz and Assignment Link	48
		4. RP English Vowels	
		4.1. Introducing English Vowel Sounds	50
		4.1.1. Vowel Letters vs. Vowel Sounds	51
		4.1.2. Phonetic and Phonological Definitions	51
		4.2. Classification of RP English Vowels	52
	4.2.1. Daniel Jones' Cardinal Vowels Diagram	53	
	4.2.2. Main Criteria for Classifying Vowels	53	
	4.2.2.1. Quantity	53	
	4.2.2.2. Quality	54	
	4.2.3. Classifications of Monophthongs, Diphthongs and Triphthongs	55	
	4.2.3.1. Monophthongs	56	
	4.2.3.1.1. Vowel quantity (Length) Differences	56	
	1. Short Vowels	56	
	2. Long Vowels	58	
	3. Reduced Vowels	60	
	4.2.3.1.2. Vowel Distinctive Quality	60	
	1. Front, Central and Back Vowels	61	
	2. Close, Intermediate and Open Vowels	61	

	3. Rounded and Unrounded Vowels	61
	4.2.3.2. Diphthongs	61
	1. Centering Diphthongs	61
	2. Closing Diphthongs	62
	3. Reduced Diphthongs	64
	4.2.3.3. Triphthongs	64
	4.3. Description of RP English Vowels	66
	4.4. Self-assessment Exercises	70
	4.5. Reflective Exercises	73
	4.5. Online Quiz and Assignment Link	73
Exams and Deliberations		
II. Second Semester Study Units		
March & April	5. RP English Consonants	
	5.1. Consonant Sounds: phonetic vs. phonological Definitions	77
	5.2. Classification of RP English Consonants (VPM)	78
	5.2.1. Voicing	79
	5.2.2. Place of Articulation	80
	5.2.3. Manner of Articulation	81
	5.3. Description of RP Consonants: Articulatory features and Variants	82
	5.3.1. Plosives	82
	5.3.2. Fricatives	86
	5.3.3. Affricates	89
	5.3.4. Nasals	91
	5.3.5. Laterals	93
	5.3.6. Approximants	94
5.4. Self Assessment Exercises	96	
5.5. Reflective Exercises	99	
5.6. Online Quiz and Assignment Link	100	

May	6. Syllable Structure and Word	6.1.	Introducing Syllable	102
	Stress	6.2.	Types of Syllables: Syllabification	103
		6.3.	Parts of Syllables	103
			6.3.1. Onset	104
			6.3.2. Nuclues	104
			6.3.3. Coda	104
		6.4.	Defining Stress	105
		6.5.	Levels of Stress	106
		6.6.	Stressed Syllables: Polysyllabic Words	106
		6.7.	Self Assessment Exercises	109
		6.8.	Reflective Exercises	110
		6.9.	Online Quiz and Assignment Link	110
			List of Abbreviation	111
			Glossary	112
		References/ Suggested Reading List	116	
Exams and Deliberations				

6. Course Objectives

Structuring the general and specific objectives of this course is carried out using the entire Bloom's revised taxonomy. The general objectives listed below focus on different levels of learning defined in terms of many action verbs expressed as follows:

 By the end of this course, students will be able to:

a. *Must Know:*

1. Define the fundamental concepts of English phonetics
2. Compare between phonetics and phonology (at an introductory stage)
3. Name the parts of the human body which are involved in the production of speech sounds
4. Distinguish between phones, phonemes and allophones

b. *Know what to do:*

5. Differentiate between RP English phonemes
6. Identify the main criteria for the classification of English phonemes
7. Classify RP English vowel and consonant sounds
8. Divide words into syllables

c. *Know how to do:*

9. Describe English phonemes and allophones
10. Determine the shared/distinctive phonetic features of English vowel and consonant sounds
11. Transcribe any given word phonemically and phonetically
12. Pronounce English words with correct stressed syllables
13. Do phonetic analysis

It is expected that by meeting these objectives, the overall aims of this course must have been achieved.

7. Assessment Methods and Grading Policies

Final assessment of this course is based on the correlation between the *final written examination* mark at the end of each semester study units and the *continuous assessment* mark. The weight of written examination mark is as equal as the weight of CA. It is 50% for each. *Continuous assessment* mark is an average of the respective marks scored from the graded ‘in class and out-of class (online)’ activities.



Table 1 indicates a break-down of the entire course marking scheme:

Final Exam	Sit for a written examination	50%
Continuous Assessment	a. In Class Learning Activities: ✓ Do performance in class (timely presence and class participation)	30%
	b. Online Class Learning Activities: ✓ Pass online quizzes (10%) ✓ Submit (collective & individual) assignments (10%)	20%

Table 1. Course Marking Scheme



The mark of ‘in-class activities’ has a good portion of the overall grade so that students with technological constraints, low access to Internet in particular, might not suffer a educational disadvantage in case of their work is turned in late or is not turned in.



Please see table (2) below for a detailed description of the **Non- Graded** types of assessments and blended methods used along with the objectives designed for this hybrid course:

Assessment	Period	Blended Methods		Objectives
Diagnostic	Before beginning the course	Online pre-test (Quiz)		To assess the prior knowledge required for the course
		Orientation(Assistance): Unit 1& Unit 2		
Formative	During the development	In clas	-Self-assessment activities (Oral short answer questions, Controlled practice activities,...)	To recognize the weaknesses

	stage of the course	Online	-Board Discussion(posting answers to the discussion questions)	before moving to the next learning unit
Summative	After the completion of the entire course	In class	Group project	To prepare students for the final written examination
		Online	Writing reflections on the Discussion board	

Table 2. Course Non- graded Types of Assessment

8. Course Instructional Materials and Study Aids

English Phonetics seems to be a well provided field; there exist extensive excellent courses of phonetics containing theory and practice. The course at hand is not intended to recommend further overloaded lists of reading, but it does not mean that there are no other materials and study aids to be used in parallel with this course.

📁 In order to complete this course, students are required to:

1. Consider this *course guide*

2. **Face-to- Face Instruction:** In general, in class meeting have a **lecture/discussion format** with relevant questions and comments whenever students wish to pursue them. This can help students grasp the key concepts and offer them the opportunity to ask questions and get an immediate feedback. The resources available to students in ‘face-to face’ instruction are: class (white board) notes, printed texts and handouts. As there might be, unfortunately, no lab sessions, students are required to have a British English-to-English (preferably a hard copy) dictionary or at least a downloaded offline copy on their smart phones.

3. **Online Instruction:** Everything on Moodle, a Learning Management System (LMS, henceforth), is **complementary** material of this course, meaning that Moodle is not

intended to serve as an optional or alternative environment for traditional face-to-face activities. Moodle also serves as a repository of all this course materials. It contains general information about the course, syllabus, an up-to-date schedule and class announcements.



It is important to note that **enrolled** users (students) are required to check Moodle platform regularly to keep up to date with,

- a. SCORM lessons,
- b. Narrated presentations (sides) of the study units,
- c. Links to useful websites(URL),
- d. Audio files (Videos and recordings)
- e. Additional graded exercises (quizzes and assignments with their due dates)
- f. Workshop activities (Teamwork)
- g. A Glossary giving brief explanations of the key terms after each unit.
- h. A discussion board for exchanging student-student/instructor's opinions and questions about the course as well as sharing feedback and grades for students.

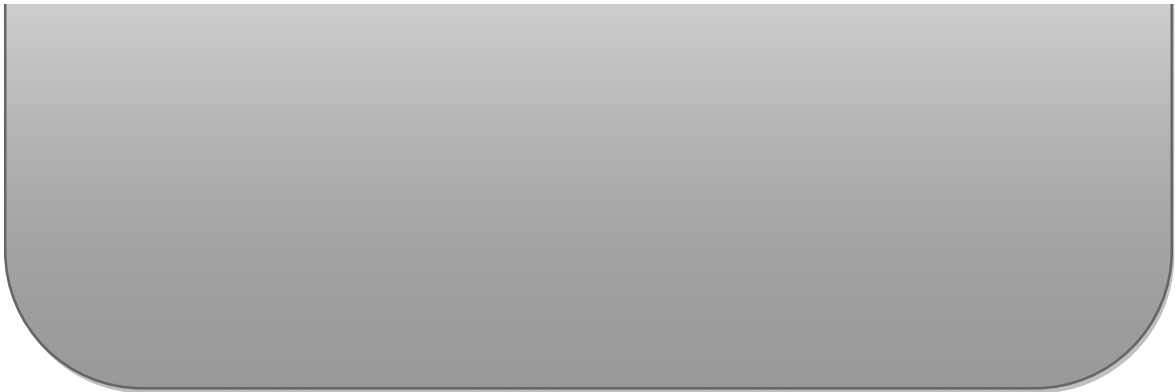


Grade items to be included

- post-test activities
- Assignment
- Course pre-test
- Quiz 1 (Lesson 1)
- SCORM Package 1
- SCORM package 2
- Quiz 2 (Lesson 2)
- Submit your assignment here
- Workshop (travail remis)
- Workshop (évaluation)

- Submit your assignment here
- Workshop (travail remis)
- Workshop (évaluation)
- SCORM package 3
- Quiz 3 (Lesson 3)
- Submit your assignment here
- Workshop (submission)
- Workshop (assessment)
- Workshop (submission)
- Workshop (assessment)
- Quiz (Lesson 4)
- SCORM package
- Course total

Course Requirements



1

Preliminaries

Unit Aim: This unit serves as a requirement (pre-requisite) for taking the course; it introduces key concepts about the status of English, accents and mediums

Section	Lecture/Discussion Format	Learning outcomes: After the successful completion of this sub-section, the student will be able to:	Learning Activities		Instructional (Blended) Procedures & Materials	
			In Class	Online		
1.1. English Language Worldwide	1.1.1. English Varieties: Dialect vs. Accent	<ul style="list-style-type: none"> Recognise the difference between the terms: dialect and accent 	Self Assessment Activities	https://moodle.univ-fiaret.dz/course/view.php?id=469#section-1	Quiz	- Refer to the course documents (PDF, odt & doc)
	1.1.2. Received Pronunciation Accent	<ul style="list-style-type: none"> Be conscious of what pronunciation features they study 				- Recommended reading: <i>Peter Roach 's first: English phonetics and phonology(2009)</i>
1.2. Mediums of English Language	1.2.1. Spoken and Written Mediums	<ul style="list-style-type: none"> Distinguish between mediums (vehicles) of language 				- Refer to the narrated slides
	1.2.2. Letters and Sounds	<ul style="list-style-type: none"> Differentiate between the terms: alphabet, letter, grapheme, homophone, homograph and rhyming words Never mix between sounds and letters in English 				-Participate in the discussion board

Whatever question can be formed about this section, it is essentially appropriate to ask how useful it is. This preliminary sections attempts to precisely put emphasis on some key concepts that might be required as pre-requisites to cover the core topics being studied. A discussion of the status of English language worldwide, its varieties, accents, RP accent in particular, and mediums are introduced briefly so that the target learners will be able to participate successfully in this course.

1.1. English Language Worldwide

“English is everywhere....It is the language of globalization—of international business, politics and diplomacy. It is the language of computers and the Internet. You’ll see it on posters in Cote d’Ivoire, you’ll hear it in pop songs in Tokyo, and you’ll read it in official documents in Phnom Penh. Deutsche Welle broadcasts in it. Bjork, an Icelander, sings in it. French business schools teach in it. It is the medium of expression in cabinet meetings in Bolivia. Truly, the tongue spoken back in the 1300s only by the ‘low people’ of England, as Robert of Gloucester put it at the time, has come a long way. It is now the global language. “A World Empire by Other Means: The Triumph of English”. (The rise of English: The Language of Globalization, Johnson, 2009: 1)

In this spirit, it can be said that English has become an international language; it is no more just American or British and no longer the sole property of its native speakers.

1.1.1. English Varieties: Dialect vs. Accent

Crystal (2008: 205) states that a language **variety** is “a system of linguistic expression whose use is governed by situational variables”. Consistently, the term **variety** refers to a specific form of a language that emerges from social, historical, geographic, social, and other variables, and may include forms such as: **dialects** and **accents**.

1. Dialect: is a variety of a language governed by regional (*regiolect*), social (*sociolect*) or individual (**idiolect**) distinctiveness, and is identified by particular levels of organization, which are: **pronunciation, grammar or syntax**, and **vocabulary**. Crystal (2008) argues that dialects may emerge when geographical barriers or divisions of social class separate groups of people from each other.

Standard variety may refer to a predominating dialect which has become the official (as in teaching), and prestigious (as in mass media) or, as Crystal (2008) calls it, an “institutionalized” form of language. **Nonstandard** varieties, consequently, are defined as dialects which “do not conform to this norm” (Crystal, 2008).

☞ Notice that a group of people who speaks a certain dialect is often referred to as a **‘speech community’**

2. Accent: refers to a variety of a language in pronunciation only (a particular way of pronouncing). It may be considered to be a spoken representation of a dialect because it reflects “those features of pronunciation which identify where a person is from, regionally or socially” (Crystal 2008: 3).

Languages have many varieties and English language is not an exception. This course is based on the **Standard English (SE)**, the norm of British English or as Trudgill (1999: 123) names it, “the most important **dialect** in the English-speaking world from a social, intellectual and cultural point of view”. The **accent** which is most often associated with SE is known as **Received Pronunciation (RP)**.

1.1.2. Received Pronunciation

English language has always had its regional pronunciations, but for the last five centuries, for reasons of politics and court, one regional accent began to acquire social prestige. It was the pronunciation of South East of London which later was identified as the **Received Pronunciation** (usually abbreviated as: **RP**).

RP is the pronunciation that has become more widely known and accepted through the advent of the radio. It has been also associated with the educated, typically the middle and upper classes of the community. This accent has connotations of prestige and authority, and is an indicator of formal speech. Various terms for RP may include: **The Queen’s English**,

Public School Accent, Oxford English, BBC English, the accent of the Court, etc. In few words, it can be said that RP is the standard accent of English language that may be recommended for teaching foreign language learners.

1.2. Mediums of English Language

Language, the human ability to communicate, may be manifested in different ways (or mediums). By far, the most common are the spoken and written mediums, yet other forms exist, such as: Braille and a tactile medium.

1.2.1. Spoken and Written Mediums

It is believed that speech has primacy over writing; it is seen as the natural productive tool whereas writing is seen as being intricate and complicated due to its extensive rules. Notwithstanding, both the spoken and written mediums have productive and perceptive forms that are usually represented in four skills:

	Written medium	Spoken medium
Production	Writing	Listening
Perception	Reading	Speaking

Table 1.1. The four language Skills (Brown, 2014)

Generally speaking, English language had undergone very striking changes during last thousand years. Old English, for example, is different from Middle, Early Modern and Present day English. The spelling (writing) form of English was fixed around the 18c, but the spoken one has remained different due to many reasons.

- a. *Spoken English*: consists of noises (sounds), it is taken in by the ear (aural)
- b. *Written English*: consists of shapes (letters), it is taken in by the eye (visual).

1.2.2. Letters vs. Sounds

English is not a phonetic language; its phonemes do not go with its graphemes. Simply put, the pronunciation of a word in English is not dependent on its spelling, meaning that what is pronounced (a sound) does not go with what is written (a letter).

1. **The English alphabet**, consists of 26 letters, is based on the Latin script.
2. **Each letter** has uppercase (CAPITAL letter) and lowercase (small letter) forms.
3. Five of the letters in the English alphabet are vowels (**A,E,O,I,U**), the remaining 21 letters are consonants (**B,C,D,F,H,J,K,L,M,N,P,G,R,S,T,V,X,Z**) and usually **W,Y** (they are called semi-vowels).
4. Two Alphabets ‘**A**’ and ‘**I**’ constitute words (a minimum syllable).
5. The **26** English letters may represent **44** sounds (24 consonants and 20 vowels ‘if we do not count triphthongs’).

6. Grapheme: is the smallest meaningful contrastive unit in writing system. It can be one alphabetical letter or a combination (group) of letters that represents a sound (a consonant or vowel phoneme). For example:

→ The word ‘**phone**’ contains **5** letters ‘p,h,o,n,e’, but **3** graphemes ‘ph’, ‘o’, ‘ne’ representing **3** sounds /f/, /əʊ/, /n/.

6.1.1. *Digraph*: a combination of two letters

6.1.2. *Trigraph*: a combination of three letters

On the other way, a single grapheme can represent more than one sound (phoneme). For instance, the word ‘**tax**’ has **3** graphemes ‘t’, ‘a’, ‘x’, but **4** sounds (phonemes) /t/, /æ/, /k/, /s/. Thereby, graphemes do not always represent the same number of phonemes or alphabetic letters.

7. Homophones: are words which have the same pronunciation but different spelling and meaning. For example:

→ Key-quay / blue- blew / faire – fare / bough – bow / wear – were

8. Homographs: are words which have the same spelling but different pronunciation and meaning. For instance these verbs and nouns :

→ bow– bow / tear – tear / breath –breathe / teeth – teethe

9. **Words rhyme:** when the last two or three sounds of the words are the same (usually in poems), as in: key, me, see, bee / right, kite, height/ owl, towel, growl/.

☞ Sounds and letters must never be mixed up in English language. Letters are written and sounds are spoken. Study these examples

Vowel Sounds	Vowel Letters
1. /ɔ:/	___ as in: ‘cord, saw, bought, cause, board...’
2. /ʊ/	___ as in: ‘put, wolf, good, could...’
3. /e/	___ as in : ‘bed, many, dead’
4. /i:/	___ as in : ‘tree, complete, these, piece, key, suite’
Consonant Sounds	Consonant Letters
1. /ʃ/	___ as in: ‘wash, sugar, nation, issue...’
2. /f/	___ as in: ‘flower, giraffe, phone, laugh, lieutenant...’
3. /θ/	___ as in : ‘thin, breath...’
4. /ð/	___ as in : ‘this, though...’
5. /z/	___ as in : ‘decision, closure, Asia, garage

Table 1.2. English Sounds and Letters

It is worth mentioning again that in ordinary English spelling, it is not always easy to know which sounds the letters stand for. Lord Cromer, published in the Spectator of August 9th, 1902, wrote:

When the English tongue we speak
 Why is *break* not rhymed with *weak*?
 Won't you tell me why it's true?
 We say *sew*, but also *few*?
 And the maker of a verse
 Cannot rhyme hi shores with *worse*?
Beard is not the same as *heard*
Cord is different from *word*
 Is there any reason known?
 To sum it up, it seems to me:
 that *sounds* and *letters* don't agree

1.3. Self-assessment Exercises

1.3.1. Say if the following statements are true (T) or false (F). Correct the false ones:

1. A variety of a language may include different forms
2. A standard variety may refer to an institutionalized form of language
3. Non standard variety may refer to a dialect which is not officially used
4. A dialect is a variety in vocabulary , word order, grammar and pronunciation
5. An accent is a variety of language in pronunciation only
6. RP is a standard accent used commonly by the court and the central administration in London
7. RP used has connotations of prestige and authority
8. A medium is not itself a language, but merely a vehicle for it
9. English is a phonetic language
10. English pronunciation is not dependent on its spelling

1.3.2. State the difference between the following terms:

1. Dialect and accent
2. Sociolect, regiolect and idiolect
3. Standard English (SE) vs. Received Pronunciation (RP)
4. Spoken and written medium of language
5. Sounds and letters

1.3.3. Write how many letters and sounds do you think are in the following words?

Words	Number of letters	Number of sounds
- half		
- wrist		
- shrink		
- ought		
- dissuade		
- you		
- scene		
- colonel		
- cupboard		
- thorough		
- enough		
- Wednesday		
- doable		

1.3.4. Write the order of consonant sounds (C) and vowel sounds (V) as shown in the example:

- call : CVC (*first a consonant, then a vowel and, finally, a consonant sound*)
1. right:....., 2. phonetics:.....3. effort:.....
 4. achieve:....., 5. due:.....6. usual:.....

1.3.5. Each sentence contains one word which sounds right but is spelt wrongly. Underline this word and write the correct spelling as shown in the example

- Example: Who's watch is this? → Whose*
1. He used to be a kernel in the army →
 2. Witch channel is the film on? →
 3. I cannot get it, I have lost my quay →
 4. The dog waggled its tale happily →
 5. He through a stone and broke the window →
 6. I have to meat John now →

1.3.6. Complete the second line to rhyme with the first line using the appropriate word from the list given:

(rocks, cake, ache, key, bigger, kitchen, six, ask, queue)

1. I'd like five bricks No make it
2. Mrs Ann ate so much steak She came home with a stomach.....
3. I saw a fox Behind those.....
4. Paula saw a friend she knew Standing quietly in the

1.3.7. Choose the correct homophone

1. I cannot believe, this class is one **hour** / **our** long.
2. You **know/no**, that is a long **thyme** / **time**!
3. I could feel their cold **stairs** /**stares** on me
4. The boy dropped a banana **peal** /**peel** on the ground
5. He went to the **principal's**/ **principle's** office.

1.3.8. Select the words (a) or (b) with which the homographs rhyme.

1. The singer made a low bow ....to the audience	(a) rhymes with ‘so’
Maria placed a red blow on the birthday gift	(b) rhymes with ‘how’
2. I have to wind.....my clock	(a) rhymes with ‘pinned’
The wind is blowing hard	(b) rhymes with ‘find’
3. The soldier received a wound in the battle	(a) rhymes with ‘moon’
The rope was wound ....around his ankles	(b) rhymed with ‘pound’
4. The boy sat close to his uncle	(a) rhymes with ‘dose’
Please close the door	(b) rhymed with ‘toes’
5. Last night I saw the band play live ..in concert	(a) rhymes with ‘give’
I do not know if he live .....or die	(b) rhymes with ‘hive’

1.4. Reflective Exercises

1.4.1. Many accents of English (e.g. most American, Scots and West of England accents) are called rhotic accents, while accents (such as BBC) are called non-rhotic. **What is rhoticity in English?**

1.4.2. **Briefly distinguish between speech and writing. Say if one of these is of greater concern for your native language?**

1. Is your native language a phonetic one?
2. How many sounds and letters are there in your native language?
3. Does your native language have letters which do not represent sounds (letters and sounds do not go together)? If so, provide examples.

1.4. Online Quiz and Assignment Link

[https://moodle.univ-tiaret.dz/course/view.section-1 \(prerequisites\)](https://moodle.univ-tiaret.dz/course/view.section-1 (prerequisites))

I. First Semester Study Units

1. Introduction to Phonetics

2. Speech Mechanism

3. RP English Vowels

2

Introduction to Phonetics

Unit Aim: This unit presents key concepts that are usually discussed in the field of phonetics as a scientific study of speech sound.

Section	Lecture/Discussion Format	Learning outcomes: After the successful completion of this section, the student will be able to:	Learning Activities			Instructional (Blended) Procedures & Materials
			In Class	Online		
2.1. Phonetics: A Core Area of Linguistics	2.1.1. Defining Phonetics	<ul style="list-style-type: none"> Define what phonetics is; Name a few notable phoneticians and recognize their main duties. 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Quiz	Small groups Assignment Submission
	2.1.2. Branches of Phonetics	<ul style="list-style-type: none"> Identify /list the branches of phonetics and how they relate to each other. 				
	2.1.3. The Interface between Phonetics and Phonology	<ul style="list-style-type: none"> Explain the connection between phonetics and phonology and determine their different aspects. 				
	2.2.1. Phone, Phoneme and Allophone	<ul style="list-style-type: none"> Distinguish between the key sound concepts 				
2.2. Transcription	2.2.1. The International Phonetic Alphabet	<ul style="list-style-type: none"> Be familiar with the IPA chart for English and transcription 				
	2.2.2. Phonetic and Phonemic Transcription	<ul style="list-style-type: none"> Illustrate the distinction between the types of transcription 				
	2.2.3. Phonetic Diacritics	<ul style="list-style-type: none"> Discuss the importance of diacritics for allophonic writing/transcription. 				

Why do we study phonetics? We may believe that phonetics has to do with pronunciation or, more precisely, good pronunciation. Levels of pronunciation vary. It may happen that people do not understand what someone wants to say because of the use of the wrong sounds as in this example where the verb ‘park’ is replaced by the verb ‘bark’: ‘*where can I bark, please?*’. It may happen also that people understand what someone says but it is unpleasant to listen to, as in this example where the sound /p/ is replaced by /b/: ‘*beoble might have broblems with the company of Bepsi*’. In fact, the study of phonetics can assist in improving one’s pronunciation and listening abilities. Henry Sweet (1877), an English philologist and phonetician, stated that phonetics is the indispensable foundation to all studies of language. He considered the study of phonetics to be the first essential step in learning a foreign language, and that no attempt should be made to advance in grammar and vocabulary until the sounds of the language have been mastered. It is worthy, then, to take this view as a starting point to deal with phonetics as an essential part of linguistics.

2.1. Phonetics: A Core Area of Linguistics

It is repeatedly put that **linguistics** is the scientific study of language, its structure and aspects. For a complete description of the current state of a language, linguists seek to provide details on several interrelated levels which form the core areas of linguistics, sometimes called *micro-linguistics*. Every language can be studied from the level :

1. **Phonetics**: the study of speech sounds in their physical aspects.
2. **Phonology**: the study of speech sounds in their cognitive aspects (sound system).
3. **Morphology**: the study of the formation of words.
4. **Syntax**: the study of the formation of sentences /sentence patterns.
(Morphology and syntax, often combined into *morphosyntax*, have traditionally been referred to as *grammar*.)
5. **Lexicology** and **semantics** describe the vocabulary, or lexicon, and explore different aspects of meaning.
6. **Pragmatics**: the study of language use.

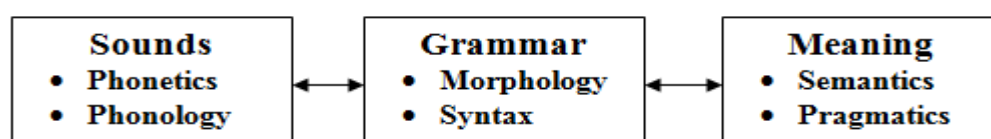


Figure 2.1. The Scope of Linguistics

Aside from language structure, other perspectives on language are represented in specialized or interdisciplinary (they overlap with other sciences) branches of linguistics, sometimes referred to as *macro-linguistics*, including: Historical Linguistics, Sociolinguistics, Psycholinguistics, Ethno-linguistics (or Anthropological Linguistics), Dialectology, Computational Linguistics and Neuro-linguistics.

As this course is not primarily concerned with the branches of linguistics, it is unnecessary to provide their definitions, but Figure 2.1 below seems useful to recapitulate most of them:

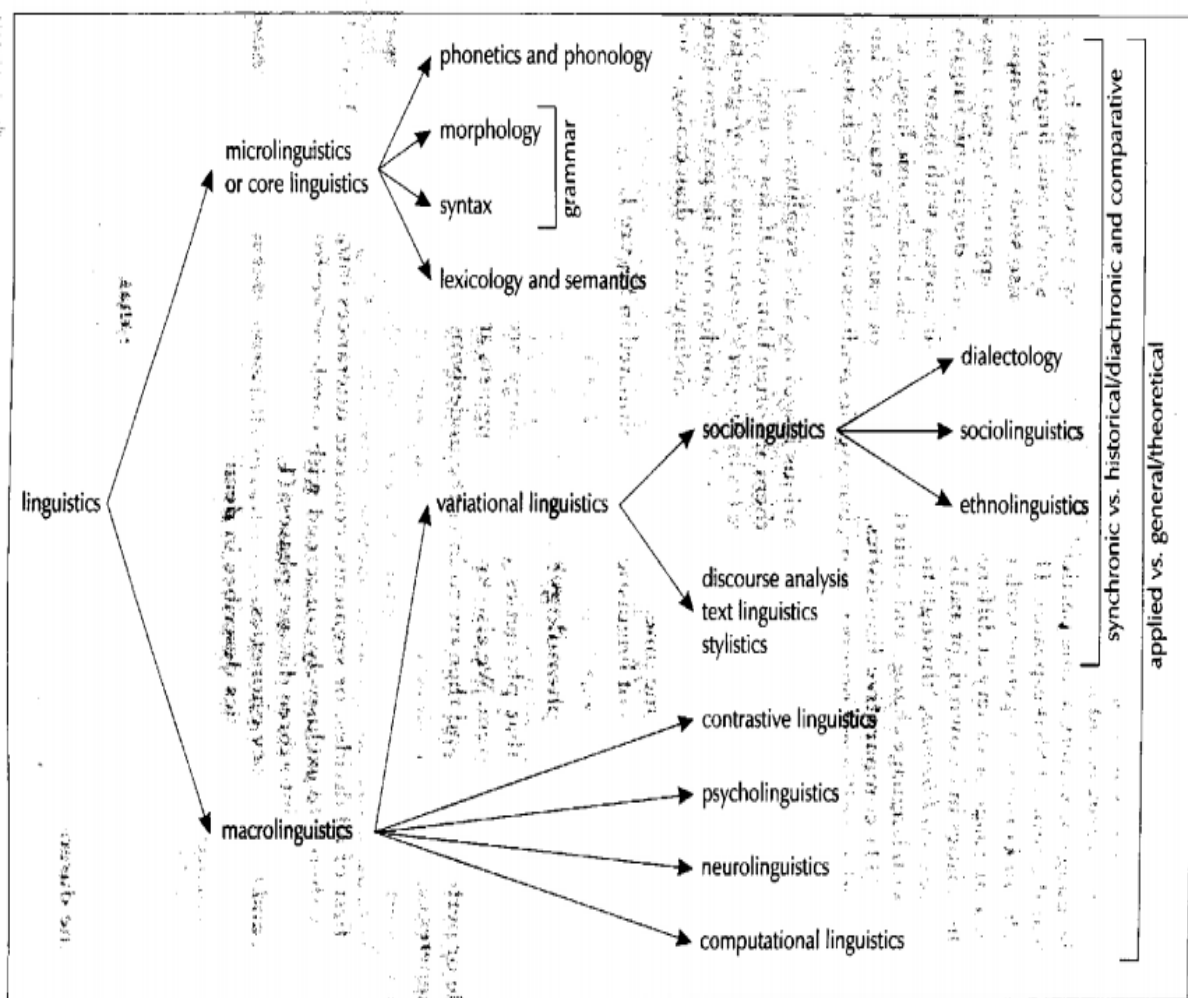


Figure 2.2. The different branches of Linguistics (Paul Skandera / Peter Burleigh, 2005:04)

At this juncture, it should be remembered that the phonetic analysis constitutes but one step in a linguistic investigation, nevertheless, it occupies an important place in the study of any language.

2.1.1. Defining Phonetics

So far, we have learnt that the branches of linguistics that are concerned with speech sounds (from different perspectives) are: phonetics and phonology. It is a bit difficult to find single, fixed and consensual definitions of these studies but, in this course, we intend to embrace working definitions:

1. **Phonetics:** the term phonetics comes from the Greek word (phone) meaning sound or voice. Phonetics studies the physical properties of human speech sounds and the processes of their production.

Similarly, this is just what is detailed in many definitions provided by phoneticians, all over the world, whose task is the scientific examination of all possible human speech sounds, how they are produced, transmitted and perceived. Some of these notable phoneticians, to name but a few, are: Henry Sweet (1845-1912) and Daniel Jones (1881-1967), A.C. Gimson (1917-1985), David Crystal (1941), and Peter Roach (1943).

According to Crystal (2008: 363): **“phonetics is concerned with the physical manifestation of language in sound waves and how they are produced, transmitted, and perceived, and also provides methods for their description, classification, and transcription”**.

As this definition emphasizes, speech can be examined in various ways, corresponding to the stages of the transmission of the speech signal from a speaker to a listener.

2.1.2. Branches of Phonetics

Phonetics, as a whole science, investigates three distinct areas that are often represented as its branches:

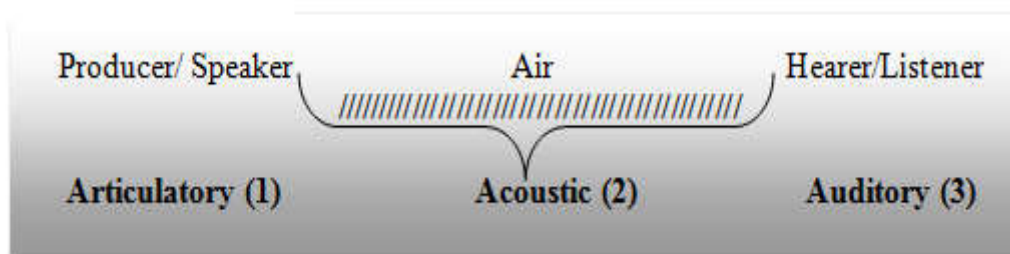


Figure 2.2. Branches of Phonetics

1. **Articulatory phonetics** (*sometimes referred to as physiological phonetics*): studies the ways speech sounds are produced by the vocal organs speech sounds.
2. **Acoustic phonetics** (*also called physical phonetics*): investigates the ways speech sounds are transmitted through the air. It deals with issues such as the physical properties of speech sounds (duration, frequency, intensity, and quality) that are generally measured by spectrographs to depict waveforms and spectrograms.
3. **Auditory phonetics**: is concerned with how speech sounds are perceived by the listener, which means how the sound waves activate the listener's eardrum, and how the message is carried to the brain in the form of nerve impulses.

Phonetics also has other sections such as: (**General Phonetics, Historical Phonetics, Comparative Phonetics, Theoretical Phonetics, Experimental Phonetics, Descriptive Phonetics and Sentential Phonetics**).³

2.1.3. The Interface between Phonetics and Phonology

Despite the fact that phonetics and phonology are closely related, the scope of this course deals essentially with phonetics and only touches upon a few concepts in phonology for practical purposes.

The relationship between phonetics and phonology is that speech sound is the main object of investigation. However, it is essential to mention that phonetics is the starting point for phonology; human speech begins with phonetic analysis and is followed by phonological analysis. In a strict sense, to get a full idea of the way the sounds of a language work, we need to study not only the phonetics of the language concerned but also its phonological system. Adetugbo (1992:103) says, “**phonology takes phonetic facts...but goes further to study speech sounds as constituting a system in any language**”

1. **Phonology** is grounded in phonetics (the study that has to do with the physical aspects of sounds as produced by the so-called speech organs); it studies the sound systems of languages and how sounds function in relation to each other in a language (Crystal, 2008).

³ For more information, see: Ait Aissa's pedagogical document Articulatory and Corrective Phonetics (2016-2017).

Phonology, known as *Functional or Linguistic phonetics*, describes the relations between sounds of a particular language and their influence on meaning by determining the:

- a. Sounds which change the meaning __ Significant __ Phonemes
- b. Sounds which do not change the meaning __ Insignificant __ Allophones

Several languages may share the same or similar sound segments (vowels and consonants), but structure these sounds differently to suit the system of that language.

☞ If someone wants to know, for example, how to **produce** the sounds (phones) /b/ and /p/, the study of phonetics has to do with this, it shows that:

- /b/ : a bilabial (place of articulation), plosive/stop (manner of articulation) and voiced (voicing)
- /p/: is bilabial, plosive and voiceless

☞ If someone wants to know, for example, whether /b/ and /p/ are **distinctive** sounds/phonemes (change the meaning/significant) in English language, it is the study of phonology that answers this question:

- In English, for example: park /pɑ:k/ , bark /bɑ:k/ → The meaning changes, so, /b/ and /p/ are distinctive phonemes.

Phonology also deals with supra-segmental features (stress, pitch, intonation...), but for the practical purposes (transcription) of this course, ‘**phoneme and allophone**’ are the main concepts in phonology that are dealt with in the next section.

2.1.4. Phone, Phoneme, Allophone

We have already encountered the notion of ‘sound’ many times. It is introduced as the common object of investigation for phonetics and phonology, yet, notice that, the term **sound** is often regarded as not being a precise one in these fields. This is discussed in greater detail below:

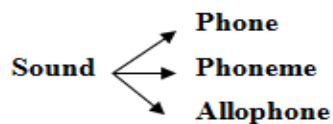
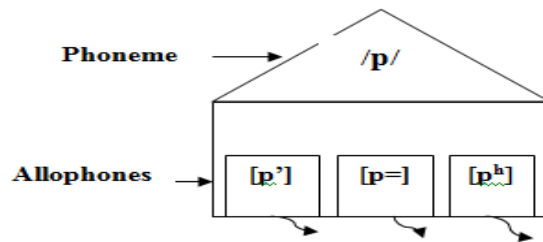


Figure 2.3. Key Sound Concepts



1. The term **sound** may, in general, mean any noise, and thus is often replaced by the concept 'phone'
2. The term **phone**, in phonetics, is restricted to the human voice ('Phone' comes from a Greek word 'phone' which means human voice). It is regarded as a human speech sound which can be finally shaped by the articulators. Consistent with this, Crystal (2008:361) defines phone as "**the smallest perceptible discrete segment of sound in a stream of speech**"
3. The term **phoneme** includes all the phonetic specifications of phones, and usually falls into two classes: consonants and vowels. **Phoneme**, represented between slashes / /, is the minimal abstract meaningful (functional) distinctive unit in phonology. By way of explanation, the phoneme /k/ is :
 - **A smallest unit:** it cannot be analysed, classified or broken down into other unit;
 - **An abstract unit:** the mental representation of the sound in the mind (mental picture and no physical reality), meaning that a phoneme is **not pronounced**. What is produced or heard is the realization (variant) of the phoneme (allophone). To illustrate, if we ask a native speaker of English, who has never learned Arabic language, to identify this phoneme /X/. S/he cannot name it as its mental picture or representation does not exist in her/his mind.
 - **A meaningful/functional/distinctive unit:** phonemes influence meaning; a substituted phoneme can bring a semantic change. If we substitute one phoneme by another, the meaning changes, for example: /p/ in park, /b/ bark, /d/ in dark, /ʃ/ in shark, ...

It can be noticed that /p/,/b/,/d/ and /ʃ/ are distinct phonemes in initial position, they function contrastively (minimal pairs).

4. The term **allophone**, represented between square brackets [], is the realization(s) or the variation(s) of the same phoneme. Unlike phonemes, substituted allophones of the same phoneme do not affect meaning. For instance, phones that belong to the same phoneme, such as [t] and [t^h] for English /t/, are called **allophones** (a number of different sounds which are interpreted as one meaningful unit by a native speaker of the language) . If the word ‘*team*’ is pronounced with any allophone of the phoneme /t/, its meaning is maintained, but if it is substituted with the phoneme /b/, then it brings about a semantic change.

☞ **Segment:** is used in its general sense as a small chunk of speech. It is sometimes used as a synonym for ‘phone or phoneme’ when a research is in its early stage (*a speech segment=phone / contrastive, phonemic segment=phoneme*).

2.2. Transcription

The term **transcription** is defined by Crystal (2008) as “the process and the methods of writing down speech sounds in a systematic and consistent way” (2008:490). It is worth noting that this definition is exclusively about **sounds** and not letters. As it is pointed out in the first unit of this course, by way of a reminder, English letters are different from sounds and, accordingly, Alphabetic or orthographic writing does not match with pronunciation. Hence, the International Phonetic Alphabet or IPA provides appropriate separate symbols that are used to identify and represent consistently each distinctive sound.

☞ In order to distinguish phonetic symbols from letters, phonetic symbols are enclosed either in square brackets, [], or in slashes, //. Letters are enclosed within pointed brackets, < >, or they appear in single quotation marks, or in italics.

Example: [p] represents an actual sound (**allophone**), / p / indicates an abstract sound and our shared knowledge of its function within the sound system (**phoneme**), and <p>, 'p', or *p* is an ordinary **letter**.

2.2.1. International Phonetic Alphabet (IPA)

The symbols for the English phonemic chart have been compiled from the **International Phonetic Alphabet** (a standardized representation of the sounds of spoken English) devised by **International Phonetic Association** (The abbreviation *IPA* stands for both the alphabet and the association).

Historically speaking, the association was established in 1886 in France, and since then, it has been functioning as the oldest representative organisation for world phoneticians. It was initially developed by a group of phoneticians, including Daniel Jones (1881-1967). The **International Phonetic Alphabet** is based on the Latin letters and **diacritics** that indicate slight alterations to the usual value of phonetic symbols, but it does not indicate supra-segmental features like rhythm or intonation. It has been revised and corrected in various ways, and the latest version of the alphabet was published in 2005.

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2005)

CONSONANTS (PULMONIC)												© 2005 IPA
	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal	
Plosive	p b			t d		ʈ ɖ	c ɟ	k g	q ɢ		ʔ	
Nasal		m	ɱ	n		ɳ	ɲ	ŋ	ɴ			
Trill	ʙ			r					ʀ			
Tap or Flap				ɾ		ɽ						
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ	
Lateral fricative				ɬ ɮ								
Approximant		ʋ		ɹ		ɻ	j	ɰ				
Lateral approximant				l		ɭ	ʎ	ʟ				

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

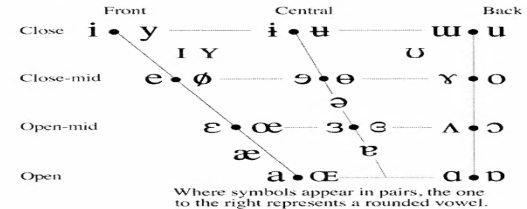
CONSONANTS (NON-PULMONIC)

Clicks	Voiced implosives		Ejectives
ɔ̤	ɓ	ɗ	Examples:
|	ɠ	ʄ	Bilabial
!	ɟ	ʎ	Dental/alveolar
ɰ	ɰ	ʄ	(Post)alveolar
ɰ	ɰ	ʎ	Palatal
||	ɠ	ʎ	Palatoalveolar
	ɠ	ʎ	Velar
	ɠ	ʎ	Alveolar lateral
	ɠ	ʎ	Uvular
	ɠ	ʎ	Alveolar fricative

OTHER SYMBOLS

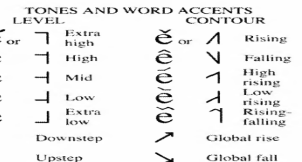
ɸ Voiceless labial-velar fricative	ɕ ʑ Alveolo-palatal fricatives
ʋ Voiced labial-velar approximant	ɻ Voiced alveolar lateral flap
ɰ Voiced labial-palatal approximant	ɣ Simultaneous ʃ and x
ɰ Voiceless epiglottal fricative	
ʕ Voiced epiglottal fricative	Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.
ʔ Epiglottal plosive	

VOWELS



SUPRASEGMENTALS

- ˈ** Primary stress
- ˌ** Secondary stress
- ː** Long **ˈfounəˈtɪʃən**
- ˑ** Half-long **eˑ**
- ᵻ** Extra-short **eᵻ**
- ◌̥** Minor (foot) group
- ◌̨** Major (intonation) group
- ◌̩** Syllable break **ji.ækt**
- ◌̯** Linking (absence of a break)



DIACRITICS					
Diacritics may be placed above a symbol with a descender, e.g. ɨ̋					
◌̥ Voiceless	◌̦ ◌̧	◌̨ Breathy voiced	◌̩ ◌̪ ◌̫	◌̬ Dental	◌̭ ◌̮ ◌̯
◌̯ Voiced	◌̰ ◌̱ ◌̲	◌̳ Creaky voiced	◌̴ ◌̵ ◌̶	◌̷ Apical	◌̸ ◌̹ ◌̺ ◌̻
◌̼ Aspirated	◌̽ ◌̾ ◌̿	◌̽ Linguolabial	◌̾ ◌̿	◌̽ Laminar	◌̾ ◌̿
◌̽ More rounded	◌̾ ◌̿	◌̽ Labialized	◌̾ ◌̿	◌̽ Nasalized	◌̾ ◌̿
◌̾ Less rounded	◌̿ ◌̀	◌̾ Palatalized	◌̿ ◌̀	◌̾ Nasal release	◌̿ ◌̀
◌̿ Advanced	◌̀ ◌̂	◌̾ Velarized	◌̀ ◌̂	◌̾ Lateral release	◌̀ ◌̂
◌̀ Retracted	◌̂ ◌̃	◌̾ Pharyngealized	◌̂ ◌̃	◌̾ No audible release	◌̂ ◌̃
◌̂ Centralized	◌̃ ◌̄	◌̾ Velarized or pharyngealized	◌̃ ◌̄		
◌̃ Mid-centralized	◌̄ ◌̅	◌̾ Raised	◌̄ ◌̅ (ɹ = voiced alveolar fricative)		
◌̅ Syllabic	◌̆ ◌̇	◌̾ Lowered	◌̅ (β = voiced bilabial approximant)		
◌̆ Non-syllabic	◌̇ ◌̈	◌̾ Advanced Tongue Root	◌̆ ◌̈		
◌̇ Rhoticity	◌̈ ◌̉	◌̾ Retracted Tongue Root	◌̇ ◌̉		

Reproduced by kind permission of the International Phonetic Association, Department of Theoretical and Applied Linguistics, School of English, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece.

2.2.2. Phonemic and Phonetic Transcription

Two types of transcription (writing system) are developed to capture the differences in sounds: *phonemic and phonetic transcription*.

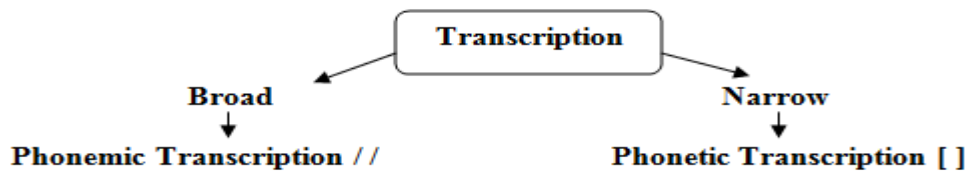


Figure 2.4. Types of Transcription

1. **Phonemic transcription** (often termed as **the broad transcription or the dictionary transcription**) is about the mental representation of phonemes. It indicates only the most noticeable phonetic features while disregarding the allophonic features/avoidance of diacritics (less detailed). In other words, it uses the 44 English phonemic symbols and does not show any phonetic details of the sounds. The symbols are enclosed in slashes //, for example: /t/ in /tʌɪp/ for ‘type’.

2. **Phonetic transcription** (often termed as the **narrow transcription or transcription proper**) aims to represent actual speech sounds in the narrowest sense and uses additional diacritics. The symbols are therefore enclosed in square brackets []. The same example, [t^h] as in [t^haɪp̚] for ‘type’ which means that /t/ is aspirated and final /p/ is reinforced by a glottal closure [ʔ].

2.2.2. Phonetic Diacritics

Diacritics are used for phonetic details. They are added to the phonetic symbol to indicate modification or specification. As the transcribed sound is represented by phonetic symbol, it is enclosed in square brackets, [], and slight alterations (special marks over, under or after the symbol) to its usual value can be indicated by diacritics (allophone), showing such processes as aspiration, devoicing, voicing, nasalization, fronting, and retraction. The diacritics often used are listed together with the list of phonetic symbols in the section

devoted for the IPA. Examples of phonetic transcriptions of words with considerable diacritics can be:

- [t^h] means that /t/ is aspirated as in [t^hin] for ‘tin’, ...
- [p=] means that /p/ is unaspirated as in [sp=in] for ‘spin’,...
- [ɫ] means that /l/ is devoiced as in [pɫ i:z] for ‘please’,
- [ŋ̩] means /n/ is syllabic as in [ɒftŋ̩] for ‘often’,...

2.3. Self-assessment Exercises

2.3.1. Say if the following statements are ‘true (T) or false (F)’. Correct the false ones.

1. Linguistics is the scientific study of language
2. Meaning is the main object of investigation for semantics and pragmatics
3. Both phonetics and phonology are concerned with speech sounds
4. Articulatory phonetics studies the way (how) speech sounds are perceived
5. Phonology is the study of the physical properties of human speech sounds
6. The minimal distinctive functional unit in phonology is the morpheme
7. The term ‘allophone’ refers to the realization of the phoneme
8. Phonemic transcription aims to represent actual speech sounds (allophones)
9. Phonetic transcription aims to disregard all allophonic variations of phonemes
10. The task of IPA is to provide symbols for the phonetic representation of all languages sounds.

2.3.2. What do the following descriptions represent?

1. Phonetics/Phonology/Morpho-syntax/Semantics/Pragmatics → ...
2. RP →
3. Articulatory/ auditory /acoustic →
4. IPA →
5. Broad/narrow →
6. Segment/phone/phoneme/allophone →
7. Special marks showing aspiration/devoicing/nasalization →

2.3.3. State briefly the difference between the following terms:

1. Micro-linguistics vs. Macro-linguistics
2. Phonetics and phonology
3. Acoustic Phonetics vs. Articulatory phonetics
4. Phonetics transcription vs. Phonemic transcription
5. Grapheme vs. phoneme
6. Phoneme vs. allophone

2.3.4. Identify the (consonant and vowel) phonemes and the corresponding graphemes in which these word pairs differ:

Words	Grapheme ‘ ’	Phoneme / /
- league/ leak		
- seat / sit		
- soon /moon		
- sigh / thigh		
- thought/ caught		
- there /care		
- dough /do		
- tie /tight		

2.4. Reflective Exercises

- 1.4.1. Why phonetics is considered a scientific study?
- 1.4.2. Explain the relationship between phonetics and phonology?
- 1.4.3. Briefly define the term transcription, then:
 1. Say if you have any working type of transcription in your native language?
 2. Are there some key concepts used interchangeably with the term ‘sound’ in your language?
 3. Are there any diacritics showing processes (such as aspiration, devoicing...) in your native language?

2.5. Online Quiz and Assignment Link

[https://moodle.univ-tiaret.dz/course/view.section-2 \(introduction\)](https://moodle.univ-tiaret.dz/course/view.section-2 (introduction))

3

Human Speech Mechanism

Unit Aim: This unit introduces macro and micro pictures of speech sound production processes through human being apparatus.

Section	Lecture/Discussion Format	Learning outcomes: After the successful completion of this section, the student will be able to:	Learning Activities		Instructional (Blended) Procedures & Materials			
			In Class	Online				
3.1. Speech Organs	3.1.1. Articulators above the Larynx: Passive vs. Active Articulators	<ul style="list-style-type: none"> List the parts of the human body which are involved in the production of speech sounds 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Quiz	Individual Assignment Submission	- Refer to the figures offered in the course	
	3.1.2. Functions of Speech Organs: Primary and Overlaid functions.	<ul style="list-style-type: none"> Explore the primary and secondary duties of the so-called speech organs 					- Recommended reading: <i>David Abercrombie (1967): Elements of general phonetics, second chapter.</i>	- Participate in the discussion board
3.2. Processes of Human Speech Sounds Production	3.2.1. Mental Process	<ul style="list-style-type: none"> Describe the stages/processes of speech sounds production through human being apparatus. 					- Refer to the narrated slides (for the illustrations and the diagrams related to speech sound mechanism)	- View the study aids provided
	3.2.2. Initiation process							
	3.2.3. Phonation Process							
	3.2.4. Oral-nasal Process							
3.2.5. Articulation process								

It is said that *speech is modified breathing*. Peter Roach (2004) continues saying that to understand how speech sounds are made; the most basic fact to remember is that all sounds humans use in speech are produced by moving air out from the lungs (except for a relatively small number of cases). If we produce this flow of air without impeding it in any way, the activity would just be called ‘breathing out’ or a ‘sigh’ if the sound is louder enough. So, usually in speaking, we use our speech organs, articulators in particular, to modify the flow of air so that sounds are produced.

3.1. Speech Organs

Unlike animals, human beings have the ability to organize a range of sounds into a highly efficient system of communication. This distinctive chief characteristic is made possible by their mental ability and certain articulation organs. Generally speaking, human beings produce speech sounds by bringing air from the lungs helped by the diaphragm through the larynx where the vocal chords/folds might or might not vibrate. This airflow is then shaped by different speech organs shown in the figures below:

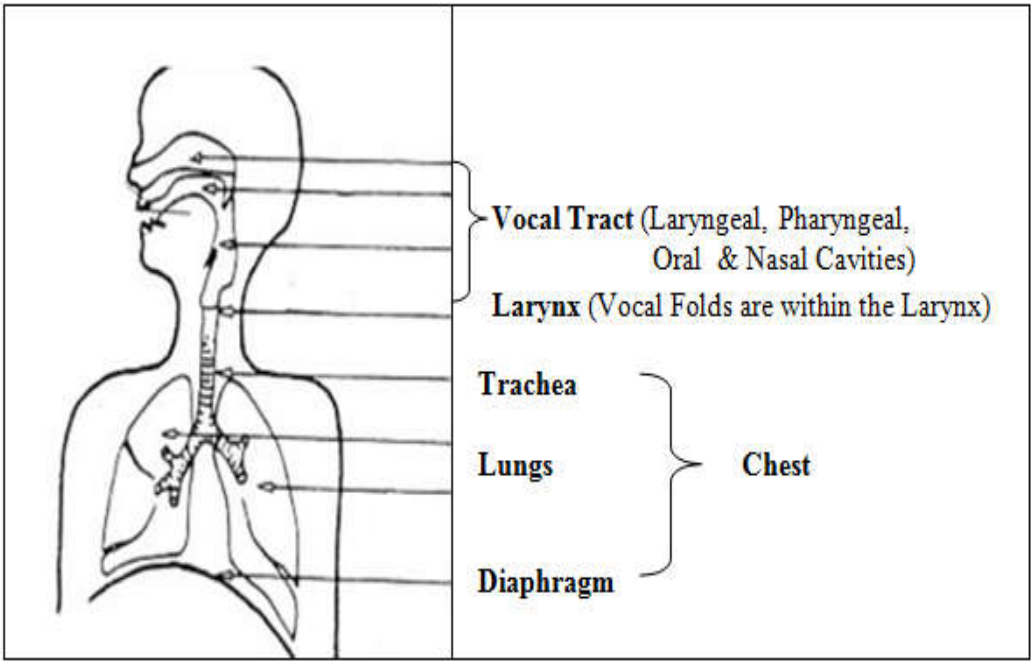


Figure 3.1. Chest, Larynx and the Vocal Tract

(Adapted from Mohamed Hemaidia’s pedagogical document, 2012)

1. Chest (*Thorax*) /tʃest/, /'θɔ:ræks/: the region of the body between the neck and the abdomen, along with its internal organs and other contents. It is mostly protected and supported by the rib cage, spine, and shoulder girdle. It contains some internal organs among which 'the diaphragm, the lungs and the trachea' which are part of the respiratory system. The actions of the chest muscles (intercostals muscles) are imperative in the production of speech sounds.

2. Diaphragm /'daɪəfræm/: a thin skeletal muscle that is located below the lungs and just above the abdomen, which means, it separates the abdomen from the chest. Upon inhalation, the diaphragm contracts and flattens while the chest cavity enlarges. This contraction creates a vacuum which pulls air into the lungs. Upon exhalation, the diaphragm relaxes and returns to its dome-like shape, and air is forced out of the lungs.

3. Lungs /lʌŋz/ (*Air box*): a pair of spongy organs located on either side of the chest that serves as an air reservoir. In order to produce the majority of human sounds, the air is expelled from the lungs (egressive airstream).

4. Trachea (also known as the *windpipe*) /trə'ki:ə/: is a cartilaginous tube that connects the larynx to the bronchi of the lungs, allowing the passage of air to the larynx then to the mouth. Thus, it can be said that trachea is responsible for bringing the laryngeal and articulatory speech mechanisms together.

5. Larynx /'lærɪŋks/ (**plural: larynges**): is an organ located at the top end of the trachea. Its structure is primarily cartilaginous, held together by a series of ligaments and membranes. The larynx is commonly called the *voice box*, a label that indicates its essential role in speech sound production. It contains:

5.1. The base: a circular cartilage at the bottom of the larynx.

5.2. Adam's Apple (clearer for males): forms the front part of the larynx.

5.3. Vocal Cords /'vəʊk(ə)l kɔ:(r)dz/: also known as *vocal folds*, *chords*, or *voice reeds*, are two small bands of elastic muscle tissue that are key in the voicing and devoicing qualities of speech sounds. The opening (space) between them is referred to as **the glottis**.

5.4. The Glottis /'glɒtɪs/: takes several shapes depending on the speech sound itself. It can be open, narrowed or completely closed.

6. Vocal Tract /'vəʊk(ə)l trækt/ : the connected passages inside the head. It is also defined as the area (container of air) that starts from the top of the vocal folds and goes all the way to the edge of the lips. We may say this, in humans, means the four cavities: the laryngeal, pharyngeal, nasal and oral cavities. Each of these four cavities is composed of smaller components within, and which are all needed to produce speech sounds.

6.1. Cavity /'kævəti/: a component of the vocal tract that its space, size, shape and function can adjust the speech sound. There are four cavities or chambers related to the speech sound production:

6.1.1. **Laryngeal Cavity (cavity of the larynx)**: extends from the laryngeal inlet (the opening that connects the larynx with the pharynx) downwards to the lower border of the cricoid cartilage where it is continuous with that of the trachea. As already mentioned, this cavity is responsible for the vocalization of sounds.

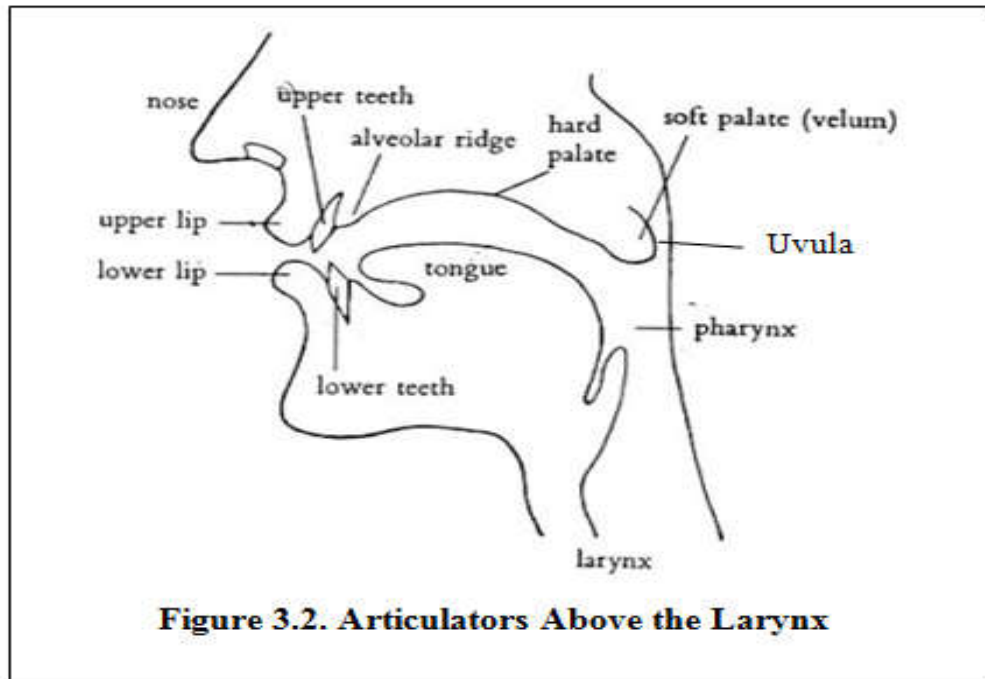
6.1.2. **Pharyngeal Cavity (cavity of the pharynx)**: is the part of the throat behind the mouth and nasal cavity. It consists of a part continuous anteriorly with the nasal cavity, a part opening into the oral cavity and a part continuous posteriorly with the esophagus and opening into the larynx. This cavity is not that actively used in English sound production.

6.1.3. **Nasal Cavity (Cavity of the nose)**: the space inside the nose is the uppermost part of the respiratory system and provides the nasal passage for inhaled air from the nostrils to the rest of the respiratory tract. This cavity adds its distinctive quality to some sounds in English.

6.1.4. **Oral Cavity (Cavity of the mouth)**: refers to the mouth. According to Ali Alkhuli (2005, cited in Ait Aissa, 2017:42), this cavity is the most important of all as it contains a number of active and passive articulators that can assume a tremendous number of different shapes. Most of these articulators are shown in the figure below.

☞ Pharyngeal, nasal and oral cavities, which lie above the larynx, are called resonance cavities as they are involved in resonance (Oro-nasal) process of speech production (See p.27). Each is represented by its specific resonator and which are respectively: the pharynx, nose and mouth.

3.1.1. Articulators above the Larynx



1. Pharynx /'færɪŋks/ (**plural: pharynges**): this resonator is a musculo-membranous tube which begins just above the larynx, with openings into the nasal and oral cavities. Thanks to the pharynx, the air breath passes to the mouth or to the nose.

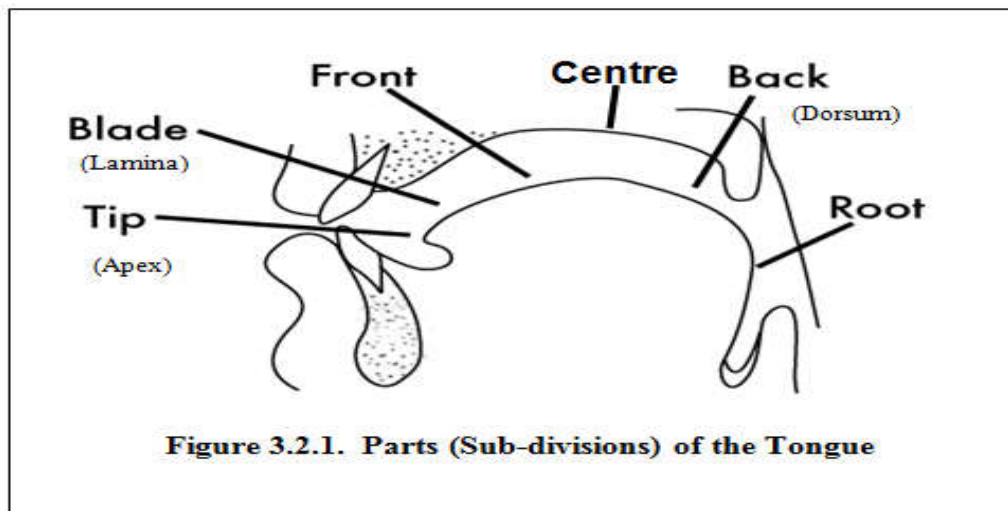
2. Mouth /maʊθ/ : the part of the face below the nose with its two corners. The inside top (upper) and bottom corners of the mouth are critical for speech sounds production.

2.1. The inside upper part is called *the roof of the mouth* or the *palate*, and it contains: **the upper lip, upper teeth, alveolar ridge** (the part just behind the upper teeth), **hard palate, and the soft palate**. The soft palate (known as the *velum*) veils the nose and finishes in the uvula 'little grape'. Unlike the hard palate, the soft palate is active; it directs the movement of the air coming from the pharynx to either the oral or nasal cavity.

2.2. The *bottom* part of the mouth (*the floor of the mouth*) consists of the following articulators: **the lower lip, lower teeth, lower jaw** (in Anatomy, the Mandible) **and the tongue**.

2.2.1. Tongue /tʌŋ/: this agile organ has a pivotal role in speech, without it no speech sound can be produced. The tongue can have different shapes; it can be raised,

lowered, thrust forward, retracted, or even rolled back. The tongue can be divided into five areas: *the tip /apex* (the very front part of the tongue); *blade/lamina, front, centre, back* (dorsum) and the *root* (the farthest part of the tongue). An additional area is called '*the rims*' or the edges of the tongue. Phonetic description of English phonemes refers to these parts of the tongue:



From this discussion, worthy of notice is that numerous organs of articulation are involved either actively or passively in the production of speech, thus are referred to as active or passive articulators (Roach, 2009). A detailed classification of each category (type) is provided in what follows:

3.1.1.1. Active Articulators: these are the movable/flexible organs that can be brought close to, or into contact with other articulators at various points of articulation (various locations in the vocal tract):

Active Articulator	Adjectives used to refer it
▪ The lungs	_____
▪ The vocal cords	_____
▪ The tongue	- (Parts of the tongue: Apex__ apical /Blade__ laminal /Back__ dorsal)
▪ The soft palate (velum)	- Velar
▪ The lips (lower and upper lips)	- Labial
▪ Lower teeth	- Dental
▪ Lower jaw	_____
▪ Uvula	_____

3.1.1.2. Passive Articulators: these are the stable/fixed organs that are immobile in speech sounds production. Their main function is to receive actions and act as points of articulation.

Passive Articulator	Adjectives used to refer it
▪ The upper teeth	_ Dental
▪ The alveolar ridge /,ælvɪ'əʊlə(r), æl'vi:ələ(r) rɪdʒ/	_ Alveolar
▪ The hard palate	- Palatal
▪ The pharynx	- Pharyngeal
▪ The larynx	- Laryngeal

3.1.2. Functions of Speech Organs

The paradox is quoted in Abercrombie (1967) that there are no organs of speech. To state it differently, there is no part of human being which is solely designed for talking. The so-called speech organs have other duties to perform such as: breathing, chewing, swallowing, smelling and other activities. These duties are their primary function and, *physiologically*, speech is an overlaid (secondary) function.

3.1.2.1. Physiological Function: According to Abercrombie (1967), as for:

1. *The respiratory system*, which comprises the diaphragm, lungs, the bronchial tubes and the trachea, breathing, and thereby assuring the supply oxygen to the blood, is its primary function.
2. *The phonatory system*, which is formed by the larynx, the primary function is to act as a valve which can close off the lungs for their protection.
3. *For the articulatory system*, which contains the nose, the lips, the mouth and all its components especially the teeth and tongue, the primary functions can be: chewing, eating, swallowing,(digestion), biting, smelling, ...etc. These organs can also take part in non-linguistic acts such as : coughs, sneeze, sighs, yawns, laughs and hiccups.

3.1.2.2. Physical Function (Linguistic Role): It is clearly put that speech is the consequence of highly complicated series of events. In this regard, it is worth mentioning that the way the diverse parts of the body involved in sounds production, with their different primary functions, work together as a unified system, presented below as four interrelated processes, to produce sounds. **So, how are speech sounds produced?**

3.2. Processes of Human Speech Sounds Production

Now, the various parts of the vocal tract are produced, let us look in detail at the different stages involved in the process referred to as a **speech chain**.

3.2.1. The Mental Process: it is the first step of speech production that occurs in the brain. The nervous system transmits the message and directs the orders /commands to the so-called ‘organs of speech’ to physically produce the sounds (this can be studied in psycholinguistics).

After this stage, it can be said that the physical production of speech sounds consists of four processes (respiration, phonation, resonance and articulation processes). Clark and Yallop (1992) view this as a kind of **speech mechanism** involving the active or passive functioning of the organs of speech.

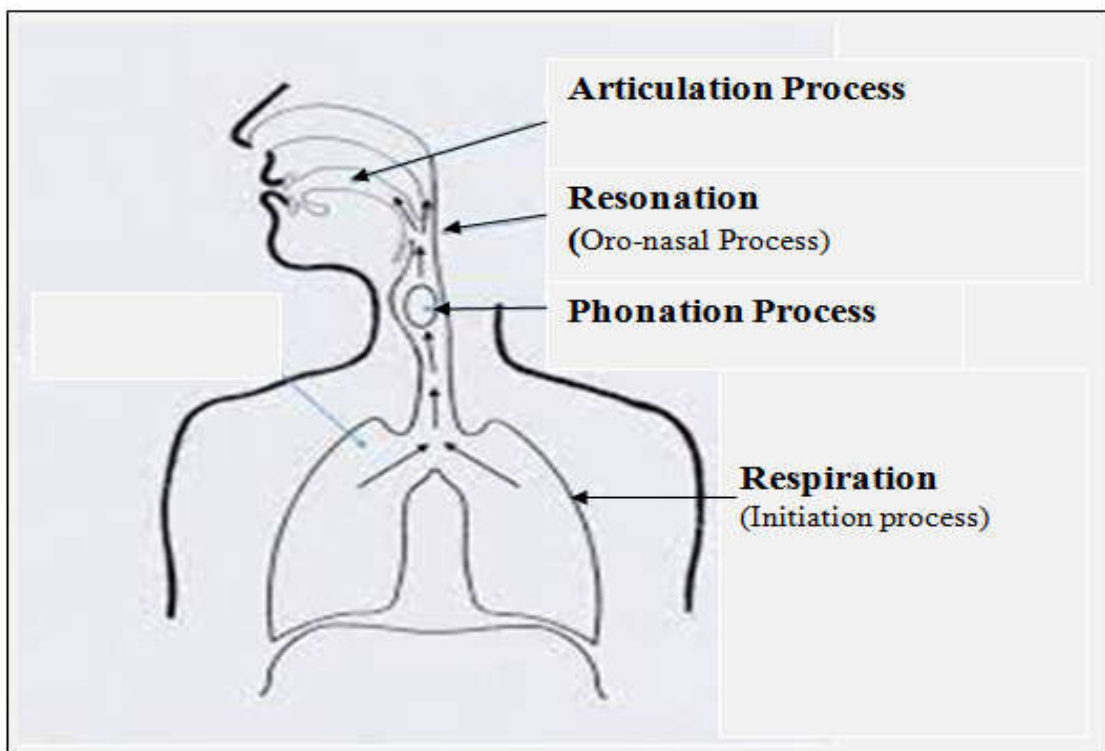
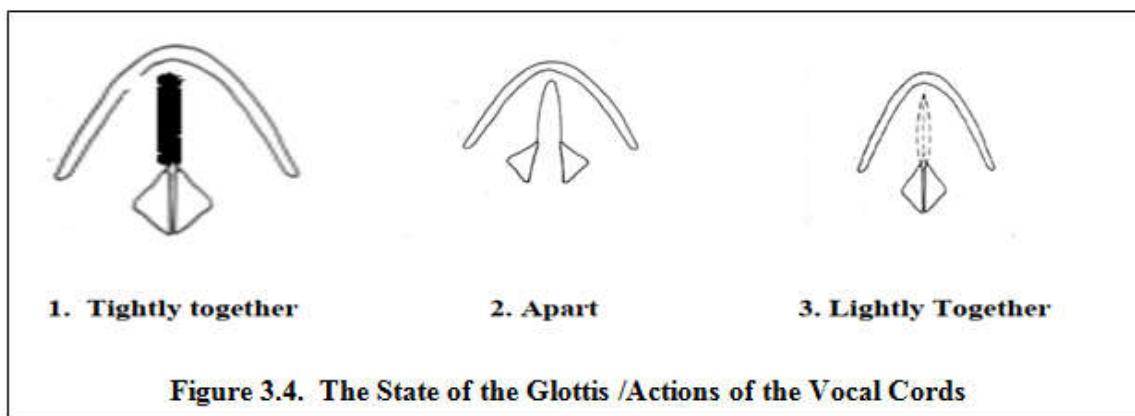


Figure 3.3. Speech Sound Production Processes

3.2.2. The Initiation (Respiration) Process: It is the moment when the air is ejected/ expelled from the lungs through a series of branching tubes then into the trachea. The air is forced out of the lungs (the energy source) by actions of the rib-cage pressing down, and of the diaphragm pressing upwards, on the lungs. In English language, most speech sounds are the result of ‘*pulmonic egressive airstream*⁴’ (Giegerich, 1992). That is to say, sounds are made by the actions of the lungs and the movement of air out from them (outwards). Even though that is not the case for all languages in the world (some sounds are said to be *ingressive*), this air-stream mechanism is considered as the basis (normal way) of human speech.

3.2.3. The Phonation Process: When the air leaves the trachea and reaches the larynx (laryngeal cavity), the phonation process occurs. The larynx has two horizontal folds of tissue in the passage of air; they are called **the vocal chords**. The gap (aperture/space) between them is named the **glottis**. The actions of the vocal cords, and thereby the state of the glottis, play a crucial role in one of the most important phonetic processes, which is that of **voicing (voicedness and voicelessness)**.



3.2.3.1. **Open Glottis:** The vocal cords are drawn wide apart and the air passes freely (this is the usual position for breathing). As there is no vibration, the result is a *voiceless* sound as /t/ , in: ‘take’ /teik/.

3.2.3.2. **Narrow Glottis:** The vocal cords are brought together gently, meaning that they vibrate. The air expelled from the lungs is able to force them apart for a moment,

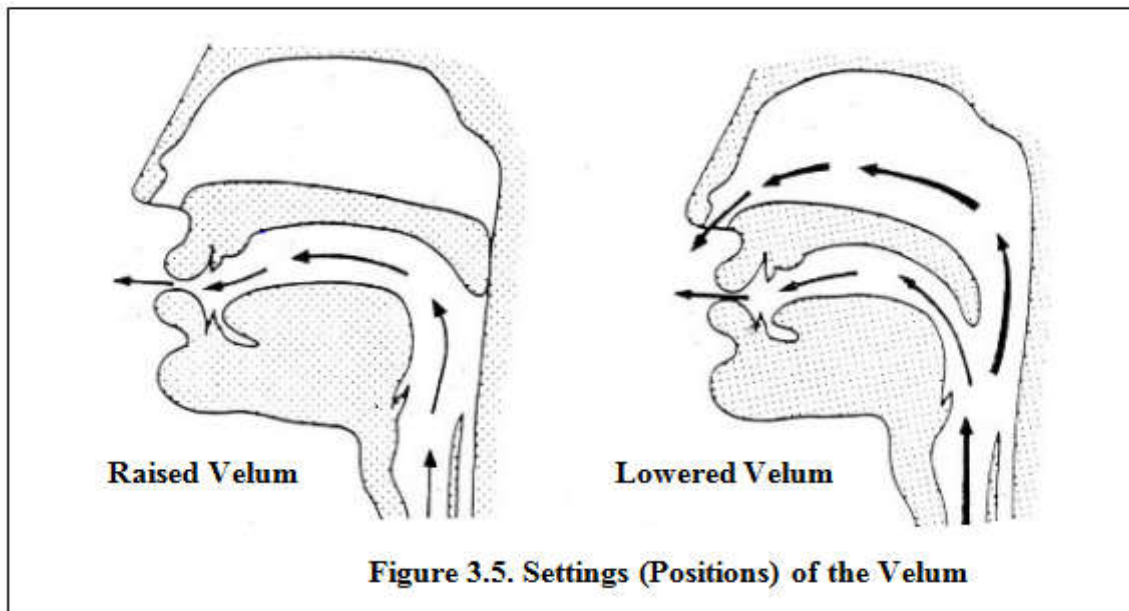
⁴ Air-stream mechanism can be egressive or ingressive, it can be also pulmonic, glottalic or velaric (Please refer to Abercrombie (1967:25).

and then they return to the closed position. In such a case, the result is a voiced sound such as /b/ in: 'bed' /bed/.

3.2.3.3. **Closed Glottis:** The vocal cords are brought together firmly so that they completely cover the top of the trachea and no air passes therefore. This case is for the glottal stop /ʔ/ as in: 'football' /fuʔbɔl/

3.2.4. The Resonation (Oro-nasal) Process:

After the larynx, the air goes through the pharynx (one of the resonators), and then it is distributed to either the nasal or oral cavity. This is related to the position of the velum (soft palate) at the back part of the mouth.



3.2.4.1. **Lowered Velum:** not pressed against (away from) the back wall of the pharynx) to let the air pass through the nose (*nose passage open /mouth passage closed*). The result is then **nasal sounds** (In English there are three consonants): /m/, /n/, /ŋ/.

3.2.4.2. **Raised Velum:** pressed against (touch) the back wall of the pharynx to permit the air pass through the mouth (*nose passage closed/ mouth passage open*). The result is then **oral sounds** (all the English phonemes except the three nasal consonants) such as: /b/, /d/, /s/, /k /, /ə/, /ɜ:/, /ʌ/...

3.2.5. **The Articulation Process:** This is the last stage of speech sounds production which provides the sound with its final shape. After being shaped the resonators (cavities or mouth, nose or pharynx), the air stream is still subject to further modifications. It can be

obstructed in different points with the help of the **articulators** situated in the oral cavity so that sounds can be intelligible and be distinguished from one another in terms of place where and the manner how they are articulated.

3.3. Self Assessment Exercises

3.3.1. Use these terms (*pharynx/ lungs/ soft palate /respiration/ or-nasal/glottis/ hard palate overlaid/ raised/ active/egressive*) to complete the following statements appropriately:

1. The.....is called the roof of the mouth.
2. The.....is called the velum.
3. The lower lip is one ofarticulators.
4. The.....is one of the three resonators above the larynx
5.is the first process involved in the physical production of speech sounds
6. The larynx belongs to the.....process
7. The pulmonic.....airstream is said to be the basis of all human speech because the air is ejected from theand moves outwards.
8. The aperture (gap) between the vocal cords is called the.....
9. The so called speech organs have primary andfunctions.
10. Oral sounds are made when the velum is

3.3.2. Classify the organs in the given list according to the processes they belong to:

<ol style="list-style-type: none"> 1. Lungs 2. Nose 3. Teeth 4. Velum 5. Trachea 6. Mouth 7. Pharynx 8. Tongue 9. Vocal chords 10. Lips 	<p>a. Respiration process</p>
	<p>b. Phonation process</p>
	<p>c. Resonation Process</p>
	<p>d. Articulation process</p>

3.3.3. Say which process belongs to the given explanation?

(respiration process b) phonation process c) resonation process d) articulation process)

1. The sound takes another shape when it gets into the three cavities:
2. The sound gets its final form by the different organs of speech:
3. The sound may be voiced or voiceless when getting inside the larynx:
4. The sound is a result of the inhalation/exhalation processes:.....

3.3.4. Write the adjectives used to describe sounds made by these parts of the vocal tract

Example:	Lips	→	Labial
1.	Teeth	→	.....
2.	Hard palate	→	.....
3.	Velum	→	.....
4.	Glottis	→	.....
5.	Nose	→	.....
6.	Apex	→	.....
7.	Dorsum	→	.....
8.	Pharynx	→	.....
9.	Alveolar ridge	→	.....
10.	Larynx	→	.....

3.3.5. Fill in the gaps with only six words: (raised- nasal- oral- closed- air-pharyngeal- lowered- open- nasals)

When the velum (soft palate) is, thecavity is, and the..... escapes through the cavity. As a result, the..... /m/,/n/ and /ŋ / are produced.

3.3.6. Choose randomly three (the so-called) speech organs and describe briefly their secondary (overlaid) function.

3.4. Reflective Exercises

3.4.1. Starting from the respiration stage, write a brief description of the actions of the articulators to produce the word ‘bee’ /bi:/.

3.4.2. Briefly trace the journey of any given sound in your native language from the time it leaves (may be) the lungs to the time it is produced.

3.5. Online Quiz and Assignment Link

<https://moodle.univ-tiaret.dz/course/view.section-3> (speech mechanism)

4

RP English Vowels

Unit Aim: This unit gives a broad introduction to RP English vowel sounds, taking into account the ways they differ from each other.

Section	Lecture/Discussion Format	Learning outcomes: After the successful completion of this section, the student will be able to:	Learning Activities		Instructional (Blended) Procedures & Materials	
			In Class	Online		
4.1. Introducing English Vowel Sounds	4.1.1. Vowel Letters vs. Vowel Sounds	<ul style="list-style-type: none"> Recognise the difference between vowel sounds and letters 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Quiz	- Refer to the course documents (PDF, odt & doc)
	4.1.2. Phonetic and Phonological Definitions	<ul style="list-style-type: none"> Define English vowel sounds phonetically and phonologically 				- Recommended reading: <i>Peter Roach' first & second chapter in English phonetics and phonology(2009)</i> - Visit URL: (Peter Roach's article,2009): <u>P.R. English Phonetics and Phonology 4th edition Cambridge</u>
4.2. Classification of RP English Vowel Sounds	4.2.1. Daniel Jones' cardinal vowel system	<ul style="list-style-type: none"> Examine Daniel Jones' cardinal vowel chart 				- View the visual (labels combined with the cardinal vowel diagram)
	4.2.2. Main criteria for classifying vowel sounds	<ul style="list-style-type: none"> Identify the main features for classifying English vowel sounds 				
	4.2.3. Classification of Monophthongs, Diphthongs and Triphthongs	<ul style="list-style-type: none"> Indicate the places of English vowel sounds on the cardinal vowel system 				- Refer to the narrated slides

4.3. Description of RP English Vowels	<p>4.3.1. Monophthongs: 4.3.1.1. Short Vowels 4.3.1.2. Long Vowels 4.3.1.3. Reduced Vowels: Length Differences 4.3.1.4. Front, Central, Back Vowels</p>	<ul style="list-style-type: none"> ▪ Compare vowel quantity (length) and quality (positions of the mouth and the lips) ▪ Explain how vowel sounds differ from each other. ▪ Describe each vowel sound using the descriptive labels needed for vowel classification 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Self Assessment Activities	Speaking Activities: Listening/ Repetition /Identification & Production	Workshop assignment (online) submission	<ul style="list-style-type: none"> - View the videos 1/2: <i>BBC pronunciation of short & long vowels and diphthongs</i> - https://youtu.be/-KbuHb4ogss - https://youtu.be/-KbuHb4ogss - https://youtu.be/r1BRCG0P9C8 	
	<p>4.3.2. Diphthongs: 4.3.2.1. Centering 4.3.2.2. Closing diphthongs 4.3.2.3. Reduced Diphthongs</p>							<ul style="list-style-type: none"> ▪ Describe each vowel sound using the descriptive labels needed for vowel classification 	<ul style="list-style-type: none"> - Participate in discussion forums
	<p>4.3.3. Triphthongs</p>								

Vowel sounds, as a class, are distinguished from consonants. The common view is that, unlike consonants, when vowel sounds are produced, the air passes through the pharynx and the mouth in a continuous stream, the vocal tract is not narrowed nor obstructed and there must be also a vibration produced by the vocal folds. Such a view might be adequate, in most cases, in distinguishing vowels from consonants. But does it help us to distinguish one vowel from another? **It is the answer of this question that will engage our attention through the rest of this section.**

5.1. Defining English Vowel Sounds

5.1.1. Vowel Sounds vs. Vowel Letters



— In English spelling, it is not always easy to know what sounds letters stand for. For example, the letters ‘i, y, u, o, e, and a’ in the words: (city, busy, women, pretty, village) all stand for the same vowel sound /ɪ/, the one which occurs in the word (sit). In the same context, in the words: (cat, car, call, care, apple), the letter ‘a’ stands for different vowel sounds. Therefore, vowel letters and vowel sounds must never be mixed up (letters are written, but sounds are spoken).

5.1.2. Vowel Sounds: Phonetic and Phonological Definitions

The word 'vowel' comes from the Latin word '*vocalis*', meaning 'speaking' because in most languages, words are not possible without vowels. A vowel sound is:

a. *Phonetic definition:* a speech sound in which there is:

- no obstruction to the flow of air through the **vocal tract**;
- no degree of narrowing (no audible friction), free air passage;
- vibration of the vocal cords.

b. *Phonological definition:* a speech sound that is said to be syllabic, meaning that it is:

- almost found at the centre (core/ peak/nucleus) of the **syllable**
- able to (can) stand alone to form a syllable (functions as a syllable).



If we say that the difference between vowels and consonants is a difference in the way that they are produced, there will inevitably be some cases of uncertainty or disagreement. According to Peter Roach (2009), we must say that the most important difference between vowel and consonant is not the way that they are made, but their different distributions. This is the study of the distribution of the sounds, and is of great importance in phonology. In an explanation simpler than that, the approximants /j/ and /w/, for example, are produced with the least stricture (obstruction) in the vocal tract, so, phonetically, they seem to be vowel-like but they occur on the edge of syllables, so phonologically they are consonants.



English vowels vary in quantity (length/ duration) and also in quality (the resulting size and shape of the mouth).

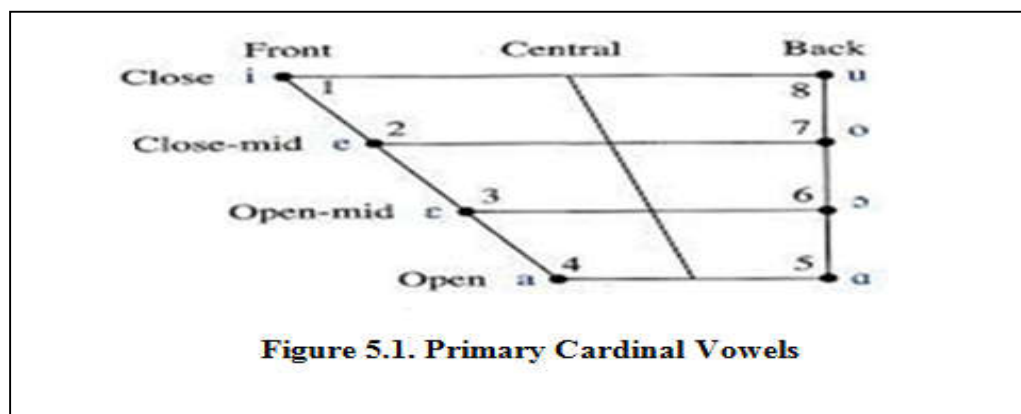
5.2. Classification of English Vowel Sounds



Daniel Jones (12 September 1881 – 4 December 1967) was a famous British phonetician /ˌfəʊnəˈtɪʃn/ who developed a diagram used to represent the English vowel space. The vowels placed on the diagram are referred to as cardinal vowels, and these are not the vowels of any particular language. **Cardinal vowels** are a standard reference system, and people being trained in phonetics at an advanced level have to learn and recognise them. Daniel Jones asserted that the values of cardinal vowels cannot be learnt from written descriptions; they should be learnt by oral instruction.

5.2.1. Daniel Jones' Cardinal Vowel System

Phoneticians needed a very accurate way of classifying vowels. The most satisfactory scheme has been devised by Daniel Jones and known as the Cardinal Vowel system.



2. Quality: is determined by the position of the tongue, lower jaw and the lips.

2.1. Tongue Height: vowel height refers to the vertical position of either the tongue or the jaw relative to either the roof of the mouth or the aperture of the jaw, that is, vowels can be pronounced with a more or less degree of aperture. The height of vowels can be changed by moving the tongue up or down or moving the lower jaw up or down (usually we use some combination of the two sorts of movement). According to this, vowels can be referred to as:

i) Close /high vowels: the tongue is raised towards the roof of the mouth.

ii) Intermediate (as close-mid or open mid)vowels: the tongue is positioned midway between a close vowel and an open vowel (between the extremes of high and low).

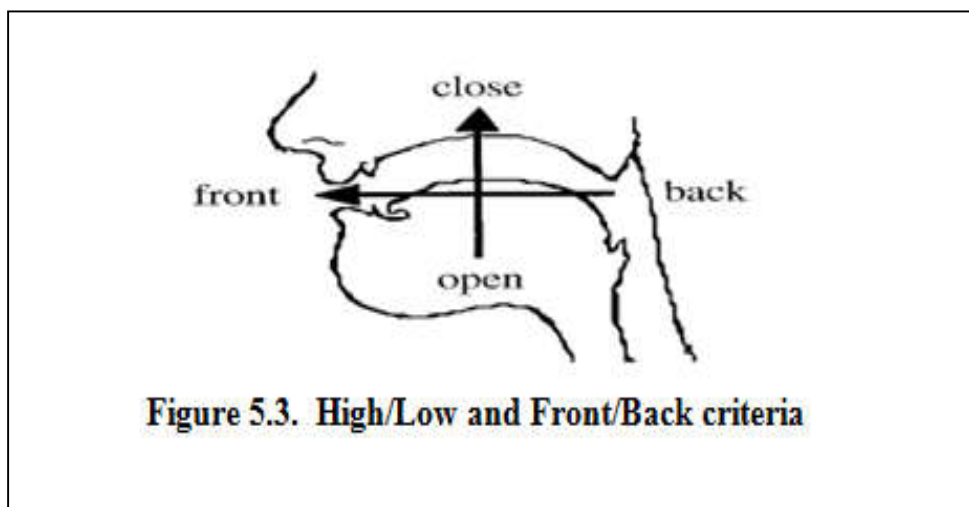
iii) Low /open vowels: the tongue is not raised at all, but rather lowered from its resting position.

2.2. Advancement of the tongue : it is named for horizontal position of the tongue during the articulation of a vowel

i) Front vowels are produced when the front of the tongue is raised toward the hard palate.

ii) Central vowels are produced when the centre of the tongue is raised toward the hard palate.

iii) Back vowels are produced when the back of the tongue is raised toward the soft palate.

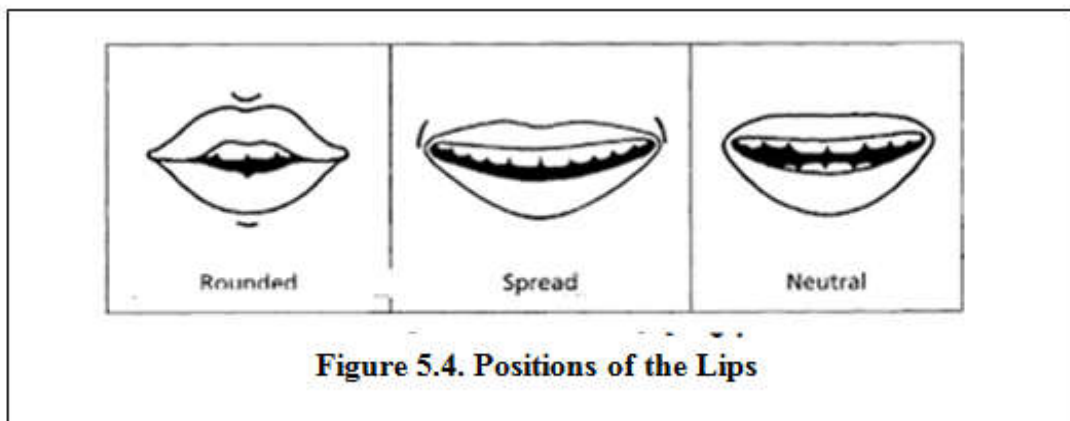


2.3. Lip roundness: Because lip rounding is easily visible, vowels may be commonly identified as rounded (O-shape) based on the articulation of the lips. The lips can be :

i) Rounded, where the corners of the lips are brought towards each other and the lips pushed forwards. This is most clearly seen in cardinal vowel no. 8 [u].

ii) Spread, with the corners of the lips moved away from each other, as for a smile. This is most clearly seen in cardinal vowel no. 1 [i].

iii) Neutral, where the lips are not noticeably rounded or spread. The noise most English people make when they are hesitating (written ‘er’) has neutral lip position.



There are additional features for vowels quality which do not create opposition, as:

2.4. Setting (position) of the velum: always raised

2.5. Vocal folds/chords action: vibration

2.6. State of the tongue (tenseness): The terms *tense* (equivalent to *short*) and *lax* (equivalent to *long*) are alternative terms that do not directly refer to the length of vowels. One may distinguish the English tense vs. lax vowels with its spelling. Tense vowels usually occur in words with the final silent e, as in *mate*. Lax vowels occur in words without the silent e, such as *mat*.



Place of articulation, manner of articulation and voicing are not useful in classifying RP English vowels because all English vowels are:

- Oral (made in the oral cavity/the velum is always raised). They can, however, become nasalized in certain contexts.
- Voiced (the vocal cords vibrate)

5.2.3. Classification of Monophthongs, Diphthongs and Triphthongs

English language has a large number of vowel sounds: **12** monophthongs (pure vowels), **8** diphthongs and **5** triphthongs. On the basis of the four criteria (dimensions) that have just been explained, RP English vowels are treated. The treatment of each vowel includes also

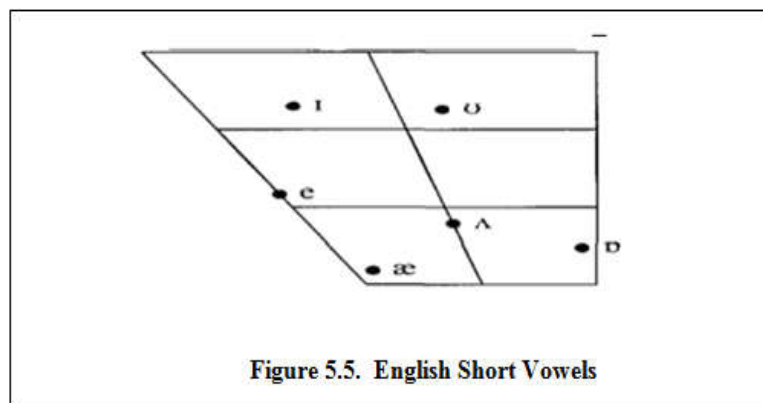
appropriate places on the cardinal vowel chart (as shown by Peter Roach, 2009), illustrations of spelling with remarks on exceptional cases, and comparative examples for allophonic variations of length (long vowels and diphthongs).

5.2.3.1. **Monophthongs (also called pure, plain, stable or simple vowels):** have a single sound in their pronunciation; there is no shift or glide from one sound to another. The quality of monophthongs does not change over the duration, that is to say, the resulting size and shape of the mouth remains the same when we pronounce these vowels.

5.2.3.1.1. Vowel Length (Quantity) Differences

Monophthongs are commonly divided in two parts: *Short vowels (7) and long vowels (5).*

1. Short vowels (in standard RP English) are: vowel sounds which the duration of their production is short if compared with other types of vowels.



- 1. /ɪ/ →
 - __ i, as in: sit, fifth, with, rich
 - __ y, as in: city, rhythm, symbol
 - __ e, as in: pretty, needed, wicket, except, houses
 - __ ie, as in: ladies, cities
 - __ a, as in: village, private

☞ /ɪ/ exists also in words like: build, business, women, minute, England, Sunday (and all other days of the week).

- 2. /e/ →
 - __ e, as in : set, bed, went
 - __ ea, as in : dead, head, breath
 - __ a, as in: many, Thames

☞ / e / also exists in words such as : says, said, friend, ate, again

3. /æ/ → __ **a**, as in: sat, hand, lamp, rash, marry
 __ **ai**, as in: plait, plaid

4. /ʌ/ → __ **u**, as in: sun, cut, dull
 __ **o**, as in: son, come, among, one, done, month, colour, monkey,
 mother, nothing, Monday, onion, London, oven
 __ **ou**, as in: country, southern, couple, enough, young
 __ **oo**, as in: blood, flood
 __ **oe**, as in: does

☞ /ʌ/ does not occur in final open syllables

5. /ɒ/ → __ **o**, as in: dock, god, holiday, sorry, gone
 __ **a**, as in: was, what, swan, want, watch, quality
 __ **ou**, as in: cough, trough
 __ **ow**, as in: knowledge
 __ **au**, as in: because, sausage, laurel, Austria, cauliflower

☞ Consider this: /ɒ/ in ‘yacht’ /jɒt/

6. /ʊ/ → __ **u**, as in: put, full, sugar, cushion, butcher
 __ **o**, as in: wolf, woman, bosom
 __ **oo**, as in: good, book, wood, wool
 __ **ou**, as in: could, should, would, courier

☞ /ʊ/ can be also found in words as: ‘Worcester’ /wʊstə/, ‘worsted’ (cloth) /wʊstɪd/

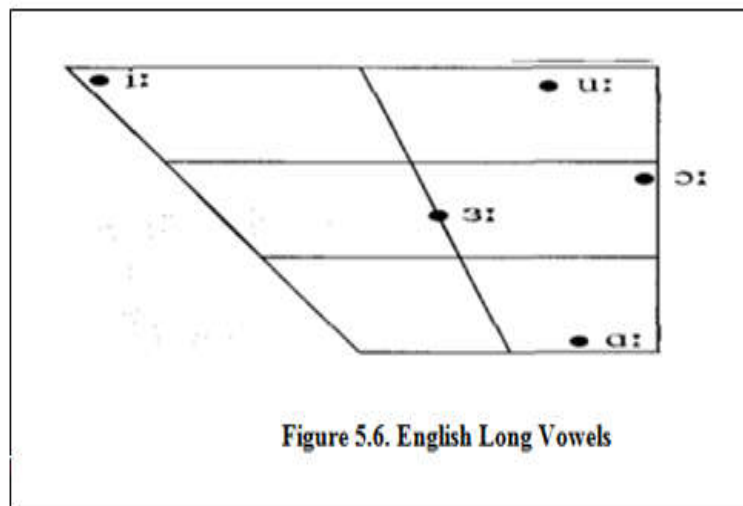
7. /ə/ → may be spelt with most vowel letters and their combinations.

- | | |
|--|--|
| __ i , as in: poss <u>i</u> ble | __ er , as in: moth <u>er</u> |
| __ e , as in: gentlem <u>e</u> n | __ or , as in: doct <u>or</u> |
| __ a , as in: wom <u>a</u> n | __ ou , as in: fam <u>ou</u> s |
| __ o , as in: oblige | __ our , as in: col <u>ou</u> r |
| __ u , as in: s <u>u</u> ppose | __ ure , as in: figur <u>e</u> |
| __ ar , as in: particu <u>lar</u> | |

☞ It should be noted that / ə / is normal in common unaccented weak forms of such words as: a, an, the, to, for, but, and, etc

🔍 The schwa /ə/ is never stressed. It has a very high frequency of occurrence in unstressed syllables.

2. Long vowels (in standard RP English) are: vowel sounds which tend to be longer than short vowels and represented phonetically by a length mark of two vertical dots /:/.



2. /i:/ →
- __ **ee**, as in: tree, cheese, canteen
 - __ **e**, as in: complete, be, these
 - __ **ea**, as in: leaf, reason, sea
 - __ **ie**, as in: piece, field, siege
 - __ **ei, ey**, as in: seize, key, receive
 - __ **i**, as in: machine, police, prestige, suite

☞ / i: / also exists in words as: quay, people, Beauchamp /'bi:tʃəm/

3. /ʊ:/ →
- __ **oo**, as in: food, soon, moon, spoon
 - __ **o**, as in: do, who, move, lose
 - __ **ou**, as in: group, soup, through
 - __ **u**, as in: rude, June, Susan
 - __ **ew**, as in: chew
 - __ **ue**, as in: blue

__ **ui**, as in: juice

__ **oe**, as in: shoe

☞ In many cases of the spelling u, eu, ew, ue, ui, /ʊ :/ is preceded by /j/

4. /ɑ:/ →
- __ **a**, as in: pass, after, bath, tomato, father, branch
 - __ **ar**, as in: part, car, March
 - __ **ear**, as in: heart, hearth
 - __ **er**, as in: clerk, sergeant
 - __ **al**, as in: calm, palm, half
 - __ **au**, as in: aunt, laugh

☞ /ɑ:/ in 'vase', and in recent borrowings from French in which the French –oir [wa:], e.g. 'reservoir.

5. /ɜ:/ →
- __ **ir, yr**, as in bird, first, girl, myrtle
 - __ **er, err, ear**, as in ear, her, serve, err, earth, heard
 - __ **ur, urr**, as in turn, church, nurse, purr
 - __ **w + or**, as word, world, work, worse
 - __ **our**, as in journey, courtesy, scourge

☞ /ɜ:/ in 'colonel' /kɜ:nəl/

6. /ɔ:/ →
- __ **or**, as in: cord, horse, sword, born
 - __ **aw**, as in: saw, lawn, jaw, yawn
 - __ **ou**, as in: bought, ought, fought
 - __ **au**, as in: daughter, fault, cause
 - __ **a**, as in: all, talk, salt, water, war, quart
 - __ **ore**, as in: before, lore
 - __ **oor**, as in: door, floor
 - __ **oar**, as in: oar, board
 - __ **our**, as in: court, four

☞ /ɔ:/ in 'broad, sure', or with /ʊə/ in the second word /ʃʊə/.

☞ /ɔ:/ does not occur before /ŋ/.

3. Reduced Vowels

➤ Compare : Monophthongs

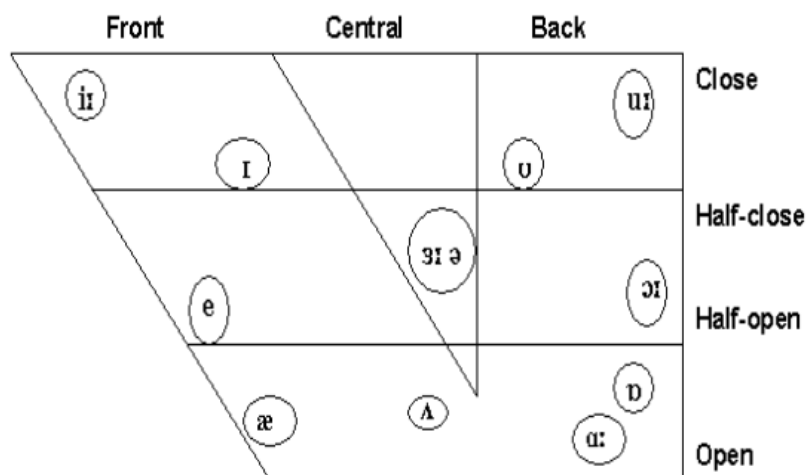
1. Fully Long /i:/ & Reduced [ɪ] ___ seed, seat / league, leak / seized, ceased / need, neat
2. Fully Long /ɜ:/ & Reduced [ɜ] ___ burn, bird, urge / first, earth, worse, church
3. Fully Long /ɑ:/ & Reduced [ɒ] ___ card, cart / carve, calf / large, larch
4. Fully Long /ɔ:/, Reduced [ɔ] ___ saw, sort / war, wart / board, bought
5. Fully Long /ʊ:/ & Reduced [ʊ] ___ rude, root / lose, loose / pool, loop / use (v), use (n)

The voiced or voiceless final consonant⁵ influences vowel length in RP accent. Long vowels preceding a voiced consonant have longer duration than the ones preceding voiceless consonants.

5.2.3.2. Vowels Distinctive Quality



Similar pairs of short and long vowels do not differ only in length (duration) but also in quality (tongue positions and lip shape)



1. Height of the tongue

- Close vowels : /i:/, /u:/
- Mid (half-close or half-open)vowels : /ɪ/, /ʊ/, /ə/, /e/, /ɜ:/, /ɜ:/
- Open vowels : /æ/, /ʌ/, /ɒ/, /ɑ:/

2. Advancement of the tongue

- Front vowels : /i:/, /ɪ/, /e/, /æ/

⁵ Please refer to unit 5 (for more details on/about voiceless and voiced consonant)

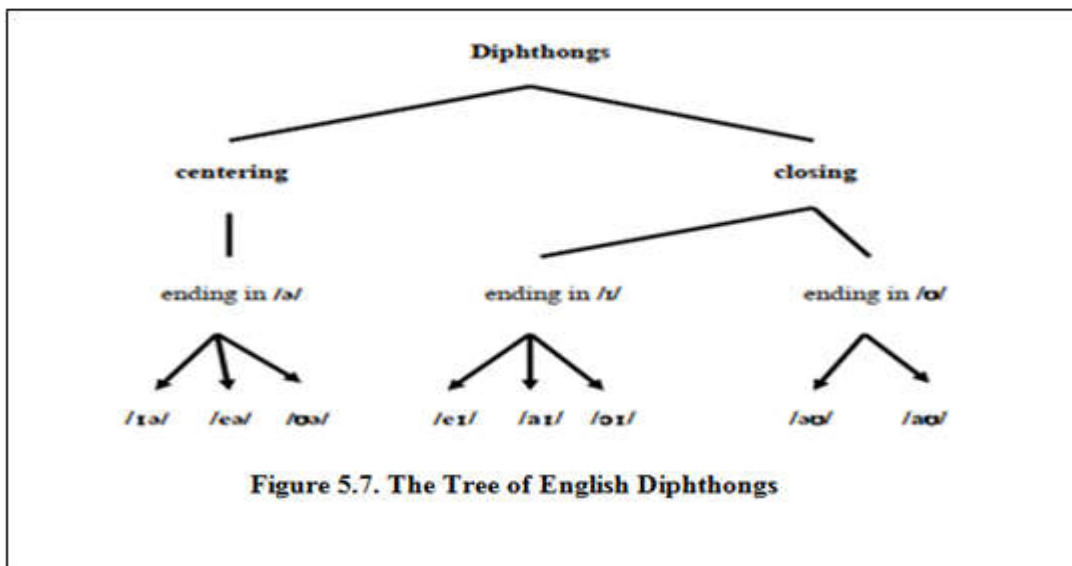
- *Central vowels* : /ə/ , /ɜ:/ , /ʌ/
- *Back vowels* : /ɑ:/ , /ɔ:/ , /ɒ/ , /ɔ:/ , /ɔ:/

3. Lip roundness

- *Rounded vowels* : /ɜ:/ , /ɒ/ , /ɔ:/ , /ɒ/
- *Unrounded (Spread or Neutral) vowels* : /i:/ , /ɪ/ , /e/ , /æ/ , /ə/ , /ɜ:/ , /ʌ/ , /ɑ:/

5.2.3.2. Diphthongs (also called glides or moving vowels): are sounds which consist of a movement or glide from one vowel to another. The total number of RP English diphthongs is eight (8): *centering diphthongs* (3) and *closing diphthongs* (5)

☞ The easiest way to remember diphthongs in terms of three groups can be:



1. Centering Diphthongs: glide towards the /ə/ (schwa) vowel

2. /ɪə/ → ___ **eer, ear, ere**, as in: deer, dear, tear(drop of liquid) , here
 ___ **eir, ier, ir**, as in: weird, fierce, fakir
 ___ **ea , eu, eo**, as in: idea, museum, theological

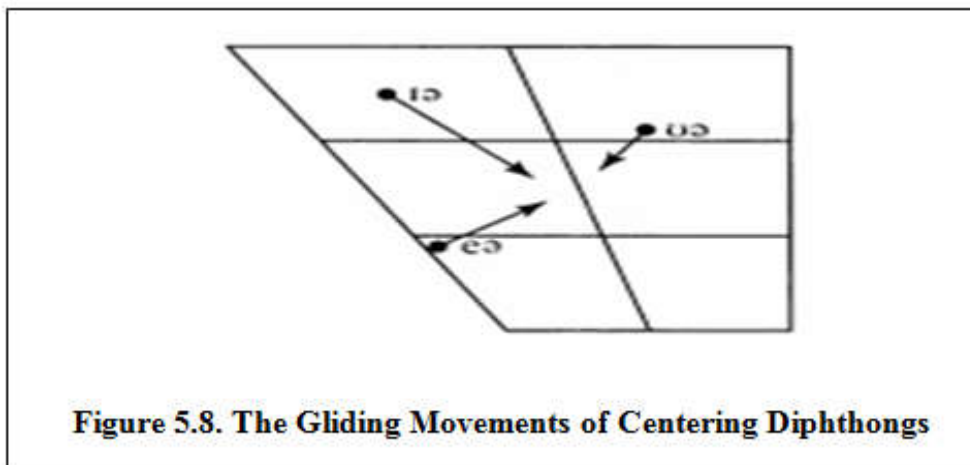
☞ hero /hɪərəʊ/, year /jɪə/ or /jɜ:/

3. /eə/ → ___ **are**, as in: care, rare, share, mare
 ___ **air**, as in: air, fair, pair, chair
 ___ **ear**, as in: bear, pear, wear, tear (v)

☞ **Note:** with /eə/ heir, there, their, Mary, Sarah, scarce, aorist

4. /ʊə/ → __ **oor**, as in: poor, moor
 __ **ure**, as in: pure, endure, cure, sure
 __ **ur**, as in: curious, spurious, during, security
 __ **our**, as in: tour

☞ /ʊə/ usually occurs in jewel, fluent, truant



2. Closing Diphthongs: end with a glide towards a closer vowel /ɪ/ or /ʊ/. Because the second part of the diphthong is weak, closing diphthongs often do not reach a position that could be called close.

- Three of the closing diphthongs glide towards /ɪ/ as described below:

1. /eɪ/ → __ **a**, as in: ape, late, make, lady, waste, base
 __ **ai**, as in: waist, rail, aim, rain
 __ **ay**, as in: day, May
 __ **ei**, as in: eight, veil, weigh, rein
 __ **ey**, as in: they, whey
 __ **ea**, as in: great, steak, break

☞ halfpenny /'heɪpni/, gauge /geɪdʒ/, gaol /geɪl/

2. /aɪ/ → __ **i**, as in: time, write, bite, climb

- __ **y**, as in: cry, dry, by
- __ **igh**, as in: high, light, fight, might
- __ **eigh**, as in: height
- __ **ie**, as in: die, lie, pie, tried
- __ **ye**, as in: dye
- __ **ei**, as in: either, eider
- __ **ai**, as in: aisle

☞ /aɪ/ in eye, bye

3. /ɔɪ/ →
- __ **oi**, as in: noise, voice, boil, point
 - __ **oy**, as in: boy, toy

☞ buoy /bɔɪ/

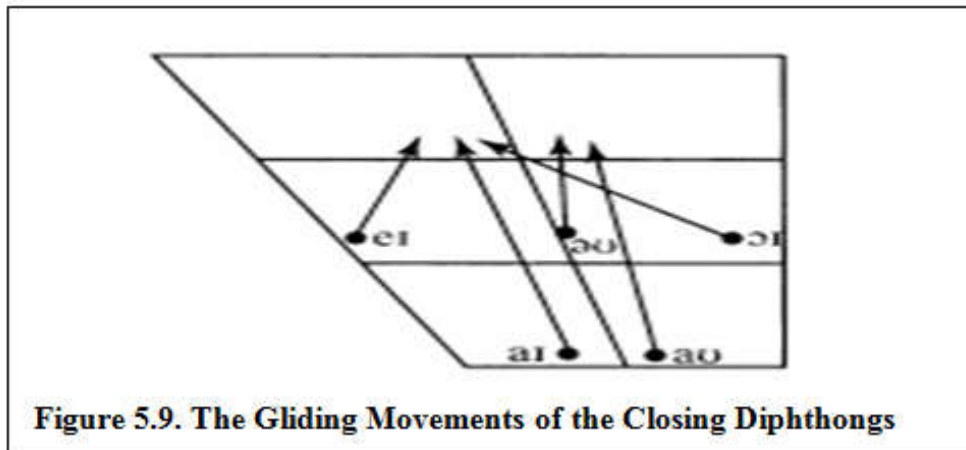
▪ Two of the closing diphthongs glide towards /ʊ/, so that as the tongue moves closer to the roof of the mouth where there is at the same time a rounding movement of the lips. This movement is not a large one, again because the second part of the diphthong is weak.

4. /əʊ/ →
- __ **o**, as in: so, old, home, folk
 - __ **oa**, as in: oak, road, foal, toast, soap
 - __ **oe**, as in: toe, doe, sloe, foe, hoe
 - __ **ou**, as in: soul, though, shoulder
 - __ **ow**, as in: know, blow

☞ /əʊ/ in mauve, brooch, beau, sew, shew, don't, won't /əʊ/ (as in old, know, go)

5. /aʊ/ →
- __ **ou**, as in: house, sound, out,
 - __ **ow**, as in: cow, town, allow

☞ Macleod /mə'klaʊd



The first vowel of all English diphthongs is longer and louder than the second vowel (shorter and lower). A diphthong is analysed as one phoneme, for example, the word ‘now’ has two (2) phonemes: /n/+**aʊ**/ instead of three phonemes /n/+/ **a:**+/+**ʊ**/.

3. Reduced Diphthongs

↻ Compare : Diphthongs

1. [ɪə], [ɪə̃] ___ fears, fierce
2. [eə], [eə̃] ___ scares, scarce
3. /ʊə/ no cases found
4. [eɪ], [eɪ̃] ___ played, plate ; ray, race ; way, waist ; save, safe
5. [aɪ], [aɪ̃] ___ tie, tight ; tidal, title ; eyes, ice ; riding, writing
6. [ɔɪ], [ɔɪ̃] ___ noise, voice ; joys, joist
7. [əʊ], [əʊ̃] ___ robe, rope ; toes, toast ; grows, gross ; road, wrote ; cold, colt
8. [aʊ], [aʊ̃] ___ allows, a louse ; found, fount ; mouth (v), mouth (n) ; loud, lout.

The voiced or voiceless final consonant⁶ influences vowel length in RP accent. Diphthongs preceding a voiced consonant have longer duration than the ones preceding voiceless consonants.

1.2.3.3. Triphthongs: is a monosyllabic vowel combination involving a quick but smooth movement (glide) of the articulator from the first vowel sound

⁶ Please refer to unit 5 (for more details on/about voiceless and voiced consonant)

to the second and then to third one, all produced rapidly and without interruption. a complex vowel sound involving three continuous vowel sounds in one syllable. Gimson (1980: 139) describes them as being composed of the five closing diphthongs described above with the schwa /ə/ added at the end. Hence, we get:

1. /eɪə/ = eɪ/+ə/ → may appear as: __a/e-yer, in: player, mayor, greyer

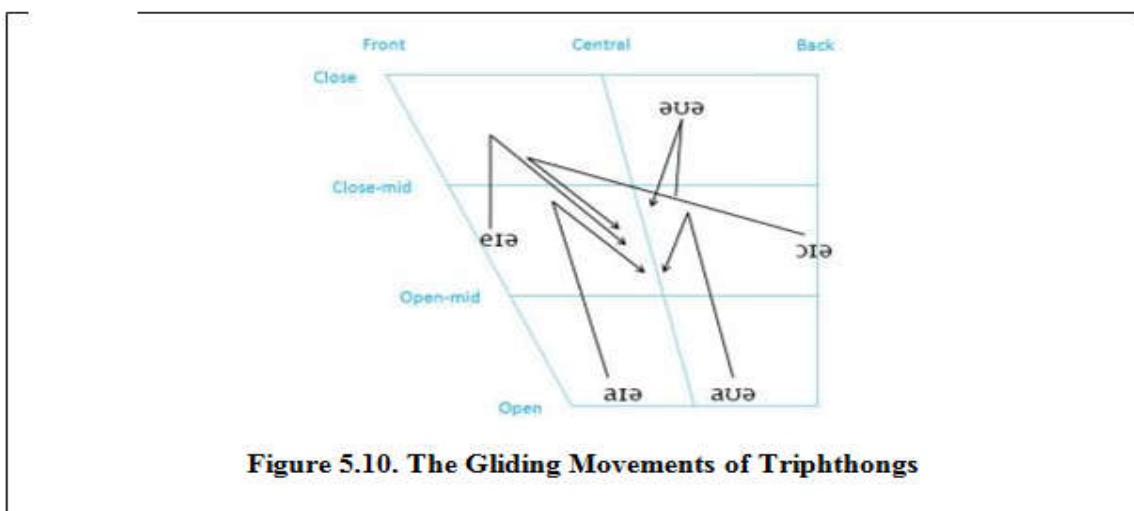
2. /aɪə/ = /aɪ/+ə/ →
 __ire, (u) yre, in: fire, hire, tyre, buyer
 __ie(r), in: pliers, crier, society
 __igher, in: higher
 __ia, in: trial, liar
 __iro, ion, in: iron, lion

3. /ɔɪə/ = /ɔɪ/+ə/ →
 __ (o)yer, in: employer, lawyer
 __oyal, in: royal, loyal

4. /əʊə/ = /əʊ/+ə/ →
 __ower, in: mower, lower, slower

5. /aʊə/ = /aʊ/+ə/ →
 __our, in: our, hour
 __ower, in: power, shower, flower

To help identify these triphthongs, this chart is given here:



4.3. Description of RP English Vowel Sound

In the following detailed descriptions, an assessment of the quantity and quality of each RP English vowel in relation to the Cardinal Vowels is taken into account:

1. Monophthongs

Vowel Sounds	Description
Short Vowels	
/ɪ/	<p>Short high (closed) front unrounded vowel</p> <p>Part of the tongue is nearer to centre than to the front raised just above the half close position; while the lips are slightly spread. The tongue is lax (compared with the tension for / i: /), with the side rims making a light contact with the upper molars.</p>
/e/	<p>Short mid front unrounded vowel</p> <p>The front of the tongue is raised between the half-open and half- close positions. The tongue may have more tension than in the case of / ɪ /. The side rims make a light contact with the upper molars while the lips are loosely spread and are slightly wider apart than for / ɪ /.</p>
/æ/	<p>Short low front unrounded vowel</p> <p>The mouth is slightly more open than for / e /; the front of the tongue is raised just below the half-close position. The side rims make a very slight contact with the back upper molars and the lips are neutrally open.</p>
/ʌ/	<p>Short low central unrounded vowel</p> <p>The centre of the tongue is raised between mid-open towards fully open position while there is no contact being made between the tongue and the upper molars. The lips are neutral.</p>
/ɒ/	<p>Short low back rounded</p> <p>The back of the tongue is in the fully open position</p>

vowel while the lips are rounded. No contact being made between the tongue and the upper molars.

/ʊ/ Short high back rounded vowel Part of the tongue is nearer to the centre than to back, raised just above half-close position while the lips are rounded. No firm contact being made between the tongue and the upper molars.

/ə/ Short mid central unrounded (unstressed) vowel A central vowel with neutral lip position, having in non-final positions a tongue-raising between half-open and half—close.

Long Vowels

/i:/ Long high front unrounded vowel The front of the tongue is raised to a height slightly below and behind close front position; the tongue is tense, with the side rims making a firm contact with the upper molars. The lips are spread.

/ɜ:/ Long mid central unrounded vowel The centre of the tongue is raised between half-close and half-open, no firm contact being made between the tongue and the upper molars. The lips are neutrally spread.

/ɑ:/ Long low back unrounded vowel Part of the tongue between the centre and the back is in the fully open position; while the lips are open. No contact being made between the rims of the tongue and the upper molars.

/ɔ:/ Long mid back rounded vowel The back of the tongue is raised between half-open and half-close positions while the lips are rounded.

No contact being made between the tongue and the upper molars

/u:/ Long high back rounded vowel The back of the tongue is in contact with the palate and the lips are rounded. No firm contact is made between the tongue and the upper molars.

2. Diphthongs

Vowel Sounds	Description
Centering Diphthongs	
/ɪə/	begins with a tongue position approximately that used for /ɪ/, i.e. centralized from half-close, moving in the direction of the mid central unrounded vowel /ə/. The lips are neutral throughout, with a slight movement from spread to open.
/eə/	begins in the half-open front position, moving in the direction of /ə/. The lips are neutrally open throughout.
/ʊə/	glides from a tongue position similar to that used for /ʊ/ towards the vowel /ə/. The lips are weakly rounded at the beginning of the glide, becoming neutrally spread as the glide progresses.
<p>☞ When the centering diphthong occurs final in the word (final positions), the /ə/ tends to be of a somewhat open variety, but, when it occurs in a syllable closed by a consonant (non final positions), the /ə/ element tends to be of a mid type, e.g.: fierce, beard ...</p>	
Closing Diphthongs	
/eɪ/	begins from slightly below the half-close front position and moves in the direction of RP /ɪ/, there being a slight closing movement of the lower jaw; the lips are spread.
/aɪ/	begins at a point slightly behind the front open position and moves in the direction of the position associated with RP /ɪ/, although the tongue is not usually raised to a level closer than [e]. The lips change from a neutral to a loosely spread position.
/ɔɪ/	begins at a point between the back half-open and open positions and moves in the direction of /ɪ/, generally not reaching a level closer than [e]. The tongue movement extends from back to centralized front, but the range of closing in the glide is not as great as for /aɪ/. The lips are open rounded for the first element, changing to neutral for the second.

- /əʊ/** begins at a central position between half-close and half-open, and moves in the direction of RP /ʊ/, there being a slight closing movement of the lower jaw. The lips are neutral for the first element, but have a tendency to round on the second element.
- /aʊ/** begins at a point between the back and front open positions, slightly more fronted than the position for RP /a:/, and moves in the direction of /ʊ/, though the tongue may not be raised higher than the half-close level. The lips change from a neutrally open to a weakly rounded position.

3. Triphthongs

Vowel Sounds	Description
Closing Diphthongs+ Schwa	
/eɪə/	begins to move from the front half-close region rising slightly to the front close region then ends at the centre of the mouth. It is a complex triphthong as it involves a multiple configuration of the jaws and the lips.
/aɪə/	starts at the open region, goes to the front close region and ends at the middle of the mouth. The tongue too has a complex movement during the articulation as it moves from the low position to the high position and finally to the neutral position.
/ɔɪə/	moves from the back close position to the front half-close region and ends at the middle of the oral cavity (the central schwa /ə/).
/əʊə/	begins with mid central unrounded to high back rounded then to the central vowel /ə/.
/aʊə/	begins with a vowel quality similar to /a:/, and goes on to a glide towards the back close rounded area (for which we use the symbol /ʊ/), then ends with a mid-central vowel (schwa, /ə/).

4.4. Self-assessment Exercises

4.4.1. Decide whether the following statements are true (T) or (F). Correct the false ones:

1. When the vocal folds are brought together firmly, the result is a voiced sound
2. Vowels are produced with a complete obstruction made in the vocal tract
3. English vowels are produced with the vibration of the vocal cords
4. English vowels are made /produced by a lowered velum
5. Cardinal vowels serve as a standard reference system
6. The cardinal vowel N° 8 and the English vowel sound /ɑ:/ are back
7. English vowels vary only in terms of quality
8. Long vowels are different from short vowels only in length
9. Monophthongs have no glide from one sound to another
10. Closing diphthongs have /ɪ/ or /ʊ/ as target points (second part)
11. The second part of English diphthongs is much longer and stronger than the first part
12. The description of the vowels involving the features (high (close)/low (open) refers to the advancement of the tongue
13. The lips are rounded for the central vowels sounds
14. Long vowels are reduced (shortened) before lenis (voiced) consonants
15. English vowels are almost found at the centre of syllables

4.4.2. For each group of the vowel sounds listed below, state the phonetic feature(s) they all share

Vowel Sounds	Shared Features
Example: [u:] [ɔ:] [ɑ:]	<i>Quantity:</i> Length / <i>Quality:</i> Backness
[i:] [ɪ]	
[ɪə] [eə] [ʊə]	
[ɔ:] [ʊ] [ɔ:] [ɒ]	
[ə] [ɜ:] [ʌ]	
[ɪ] [ʊ]	

4.4.3. Which vowel sound is classified /described this way:

1. Short, High (close), Front Unrounded vowel sound / /
2. Long, Central (between mid close and mid open position), Unrounded vowel / /
3. Short, Back, Just above mid close position, Rounded vowel / /
4. It begins in the region of front, short, mid-close and mid-open vowel and moves in the direction of the short vowel in the close front area / /
5. It begins with a vowel quality similar to /ɑ:/, and goes on to a glide towards the back close rounded area, then ends with a mid-central vowel / /

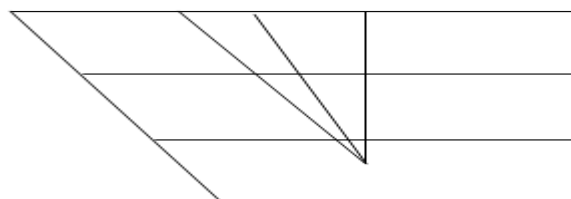
4.4.4. Circle the word with the different vowel sound

1. dear/ beard/ cheer/ pear
2. care / rare / fear/ mare
3. break / great / heat / weight
4. void/ toe /noise / joy
5. south /oven / son / flood

4.4.5. Decide if the pronunciation of the vowel sounds in each pair of the following words is ‘similar or different’

- | | |
|------------------------|------------------------|
| 1. heard – heart | 7. ice- fight |
| 2. calm–half | 8. oak- goat |
| 3. rain –said | 9. boil-board |
| 4. bad – sad | 10. mower- tower |
| 5. fight –write | 11. pair – there |
| 6. pool –full | 12. got-board |

4.4.6. On the diagram provided, indicate the correct places for the following English vowel sounds: (1. /ɪ/ 2. /ʌ/ 3. /ɑ:/ 4. /ɜ:/)



4.4.7. Write short notes with examples on the following terms:

1. Vowel	3. Monophthong
2. Semi-Vowel	4. Diphthong

4.4.8. It should be noted that the line between English phonemes cannot be clearly drawn. **In order for a phoneme to be a vowel, it should meet certain vowel-hood criteria. What do these criteria include?**

4.4.9. Transcribe the vowels of the following words and, then, compare them and say in what case long vowels are reduced

Words	Transcription of the vowels
sit	/ /
seat	/ /
seed	/ /

4.4.10. The following illustrations represent the dimensions: tongue height (close/open) and tongue advancement (front, center and back). **Complete the following table by indicating the class of sounds represented by each illustration**

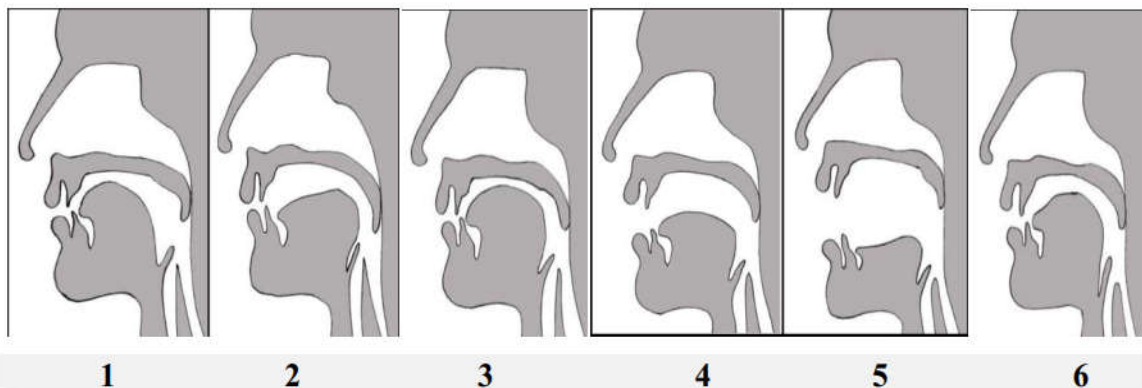


Illustration	Class Sound Representation
1	
2	
3	
4	
5	
e.g., 6	Half (Mid) Close Vowels

4.5. Reflective Exercises

4.5.1. Ordinarily, English vowels do not involve the nasal cavity. They can, however, become nasalized in certain contexts (e.g., when they follow nasal consonants). The shape of the oral cavity is determined by the general position of the tongue in the mouth. This divides the vowels into different classes: front, central and back vowels. Describe the articulation of each class.

4.5.2. You may have the experience of going to a doctor because of a cold or flu. The doctor wants you to say æææææææ to be able to see the back of your mouth. What this experience can tell you about the articulation of the /æ/ sound.

4.5.3. Are there any vowels in English language (RP English) that do not exist in your language? If yes, describe them and say if they are difficult for you to pronounce.

4.5.4. Are there any vowels in your language that do not exist in English language (RP English)? If yes, describe them (Please write IPA symbols - not letters).

4.5. Online Quiz and Assignment Link

[https://moodle.univ-tiaret.dz/course/view.section-4 \(vowels\)](https://moodle.univ-tiaret.dz/course/view.section-4 (vowels))

II. Second Semester Study Units

1. RP English Consonants

2. Syllable Structure and Word Stress

5

RP English Consonants

Unit

Aim: This unit describes several (complex) consonants and their allophones in terms of articulation and distribution.

Section	Lecture/Discussion Format	Learning outcomes: After the successful completion of this section, the student will be able to:	Learning Activities		Instructional (Blended) Procedures & Materials	
			In Class	Online		
5.1. Introducing RP Consonants	5.1.1. Phonetic Definition	<ul style="list-style-type: none"> Define consonant sounds phonetically and phonologically Differentiate between Sonorants and Obstruents 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Quiz	- Refer to the course documents (PDF, odt & doc)
	5.1.2. Phonological Definition					- Recommended reading: <i>A.C. Gimson (1980), Chapter eight, in 'An Introduction to the pronunciation of English'</i>
5.2. Classification of RP Consonants	5.2.1. Airstream Mechanism	<ul style="list-style-type: none"> Explain the nature of the airflow involved in the production of RP consonants 				- View the figures (offered in the course)
	5.2.2. Voicing					
	5.2.3. Place of Articulation	<ul style="list-style-type: none"> Determine English consonants based on the criteria (VPM) 	- Refer to the narrated slides			
	5.2.4. Manner of Articulation		- View the online study aids & the glossary			

5.3. Description of RP English Consonants: Articulatory Features and Variants	5.3.1. Plosives	<ul style="list-style-type: none"> ▪ Identify RP English Consonants ▪ Describe each consonant sound in terms of articulatory features and allophonic variations ▪ Transcribe RP Consonants phonemically and phonetically (pronounce them correctly) 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Speaking Activities: Listening/ Repetition /Identification & Production	Individual assignment (online) submission	View the videos https://youtu.be/giLbDKbCiVU
	5.3.2. Fricatives						
	5.3.3. Affricates						
	5.3.4. Nasals						
	5.3.5. Laterals						
	5.3.6. Approximants						
- Participate in discussion forums							

Consonants, as segments of syllables, have certain common properties that identify them from vowels. Their description usually necessitates the provision of certain basic information, including: (1) the nature of the airstream (whether it is egressive or ingressive/ pulmonic or non pulmonic); (2) the setting of the velum (whether it is oral or nasal); (3) the state of the glottis or the action of the vocal cords (whether it is voiced or voiceless); (4) the degree and the nature of stricture/obstruction.

5.1. Consonant Sounds: phonetic vs. phonological Definitions

1. **In articulatory phonetics**, a consonant is a speech sound which obstructs or blocks the flow of air partially or completely through the vocal tract (the part of vocal apparatus above the larynx). For further clarification, consider these example:

4. /b/ and /p/ make a *complete* closure (obstruction/stricture/ stoppage)of airstream,
5. /f/ and /v/ make a *considerable* (not a total) obstruction to the flow of air,
6. /w/, /j/ and /r/ make *the least* obstruction to the flow of air. Hence, they are called ‘semi-vowels/vowel-like’, they resemble in the nature of obstruction.

☞ Notice that depending on the degree of obstruction, we can classify the **24** English consonants into: **7** sonorants and **17** obstruents

1.1. Sonorant: A (voiced) sound that does not cause enough obstruction to the airflow through the vocal tract such as: Nasals /m/, /n/, /ŋ/, Lateral /l/, and approximants /r/, /j/, /w/. **Vowels** are also called sonorants as they share the feature of sonority.

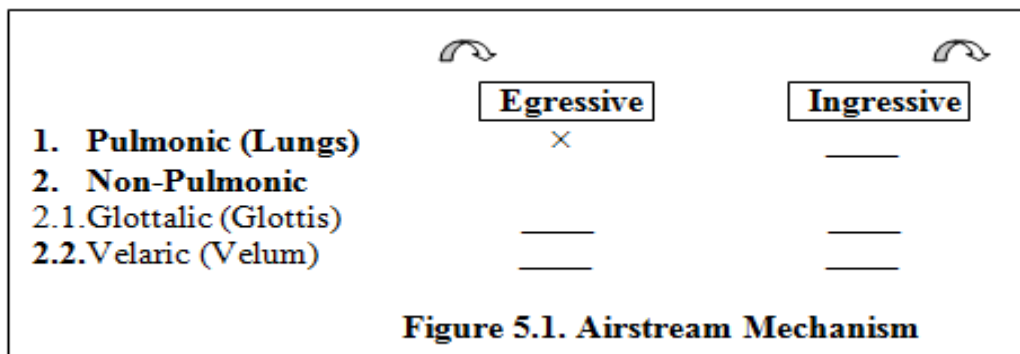
1.2. Obstruents: A sound (always a consonant) in which there is a substantial obstruction to the flow of air through the vocal tract. The airflow is always obstructed to a great extent when these consonants are articulated: plosives: /p/, /b/, /t/, /d/, /k/, /g/, fricatives: /f/, /v/, /s/, /z/, /θ/, /ð/, /ʃ/, /ʒ/,/h/, and Affricates /tʃ/, /dʒ/. In this case, *silence* and *pause* are to be regarded as being of consonantal type.

2. In **phonology**, a consonant is a segment typically found at the edges of syllables: in the beginning (Onset) and/or the end (Coda) of syllables⁷. But, there are cases where some consonants, as liquids and nasals, can be syllabic (function as syllables)

5.2. Classification of RP English Consonants (VPM)

Following what have been just said, we can arrive at an adequate classification of consonants by answering question related to these essential factors (criteria/parameters):

5.2.1. Airstream Mechanism: the nature of the airstream used to make consonants



5.2.1.1. Egressive versus Ingressive: It is previously stated that ‘egressive airstream’ is said to be the basis of all human speech because the air comes out of the vocal tract and moves outwards (‘e’_out, ‘gress’_ ‘forward’), not inwards as is the case of non-linguistic speech.

5.2.1.2. Pulmonic versus Non-pulmonic

- a. Pulmonic:** made by the movement of air (inwards or outwards) initiated by the lungs.
- b. Glottalic:** made by moving the air inwards or outwards by actions of the larynx.
- c. Velaric:** made by making a velar closure and sliding the tongue backwards or forwards to move air inwards or outwards.

It is said that most English consonants have ‘*pulmonic egressive airstream*’ except /**k**/, /**g**/, /**h**/ have ‘*non-pulmonic egressive airstream*’.

⁷ For more details, see ‘Syllable Structure’ (Unit 6).

5.2.1.3. **Oral versus Nasal Airflow:** it is worth noting that the way the air comes out affects the sound generated, this is controlled by the setting of the velum.

- a. *Nasal airflow:* the velum is lowered and the air flows through the nasal cavity. Only three English sounds are nasal: /**m**/, /**n**/, /**ŋ**/.
- b. *Oral airflow:* the velum is raised to close the nose passage. Most English phonemes are said to be oral except the three nasal sounds.
- c. *Lateral airflow:* the velum is raised to let the air moves from both sides of the mouth. The English sound /**l**/ is said to be lateral.

5.2.2. Voicing : whether English consonants are voiced or voiceless

1. Voicing takes place at the level of /or during the phonation process⁸ where the vocal cords are:

- a. wide apart (no vibration) to produce **voiceless** sounds
- b. brought together gently (there is vibration) to produce **voiced** consonant. Note here that some sounds can be voiced for only part of their time.
- c. brought together firmly (no air passes) to produce the glottal stop or plosive [ʔ]

Table 5.2. below presents the list of English voiceless and voiced consonants:

RP English Consonant Sounds		
Sonorants	Obstruents	
Voiced	Voiced	Voiceless
/m/	/b/	/p/
/n/	/d/	/t/
/ŋ/	/g/	/k/
/l/	/v/	/f/
/r/	/z/	/s/
/j/	/ʒ/	/ʃ/
/w/	/ð/	/θ/
	/dʒ/	/tʃ/
		/h/

Table 5.2. Voiceless and Voiced Consonants (Sonorants and Obstruents)

⁸ See Unit 3, ‘Human Speech Mechanism’

☞ Because the vocal cords themselves are concerned in making the glottal stop sound [ʔ], it is meaningless to describe it as either voiceless or voiced. [ʔ] is considered of less importance since it is usually just an alternative pronunciation of /p/, /t/, /k/ in certain contexts (Roach, 2009).

2. Voicing is also related to the force /energy of articulation. Accordingly, consonants are subdivided into:

- a. **Voiceless** → **Fortis** (strong): a consonant sound that seems to be pronounced with more force (muscular energy/stronger breath). E.g.: park /**pɑ:k**/
- b. **Voiced** → **Lenis** (weak): a consonant sound that seems to be pronounced with less energy (force). E.g.: dark /**dɑ:k**/

☞ Though the force of articulation is not easy to measure, some phoneticians may prefer using the terms ‘fortis and lenis’ rather than the terms ‘voiceless and voiced’ (Raškauskienė & Kardelis, 2014).

3. **Pre-Fortis Clipping:** is the process of “the reduction of duration of sonorous sounds (generally vowels) when followed in the same syllable by a fortis consonant” (Ashby and Maidment 2005: 197). Long vowels and diphthongs preceding a voiced (lenis) have longer duration than the ones preceding voiceless (fortis) plosives. Study these examples:

- *neat* /**ni:t**/ (with reduced vowel) and *need* /**ni:d**/ (with fully long vowel)
- *rice* [**rɑr s**] (with clipped/reduced diphthong) and *rise* /**raɪz**/ (with fully long diphthong)

5.2.3. Place of Articulation: where the obstruction is made

The chief points of articulation with special reference to English sounds are as follows:

1. **Bilabial consonants:** Lips (lower lip with upper lip) → [p, b, m, w]
2. **Labio-dental consonants:** Lower lip and upper teeth → [f, v]
3. **Inter-dental / dental consonants:** Blade of tongue with upper teeth → [θ, ð]
4. **Alveolar consonants:** Front of tongue with alveolar ridge → [t, d, s, z, n, l]
5. **Post-alveolar:** Part of tongue with the part behind the alveolar ridge → [tr, dr, r]

6. **Palato-alveolar consonants:** Tongue / tongue-rims with central palate (or hard palate)
→ [ʃ, ʒ, tʃ, dʒ]
7. **Palatal consonant:** the back of the tongue raised against the central/hard palate → [j]
8. **Velar consonants:** Back of the tongue with soft palate → [k, g, ŋ]
9. **Glottal:** inside the larynx (the glottis) → [ʔ, h]



Consonants that share the same place of articulation may be different in terms of manner of articulation. Besides, even if those consonants share the place and manner of articulation may be different in terms of voicing and nasality.

5.2.4. **Manner of articulation:** how the obstruction is made (its degree and type)

The obstruction made by the organs may be total, partial or may merely constitute a narrowing sufficient to cause friction.

i. Complete Closure/Approximation:

1. Plosives /Oral stops: [p, t, k, b, d, g, ʔ]
2. Affricates: [tʃ, dʒ]
3. Nasal/Nasal stops: [m, n, ŋ]

ii. Partial Closure/Approximation

4. Lateral approximant: [l]

iii. Narrowing/Close Approximation

6. Fricatives: [f, v, θ, ð, s, z, ʃ, ʒ, h]

d. The least degree of obstruction/Open Approximation

7. **Approximants:** - Semi vowels (glides) : [w, j]
- The frictionless continuant (liquid) : [r]

Manner of Articulation	Voicing	Place of Articulation								
		Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal-alveolar	Palatal	Velar	Glottal
Plosives	Voiceless	p			t				k	ʔ
	Voiced	b			d				g	
Fricatives	Voiceless		f	θ	s		ʃ			h
	Voiced		v	ð	z		ʒ			
Affricates	Voiceless					tr	tʃ			
	Voiced					dr	dʒ			
Nasals	Voiceless									
	Voiced	m			n				ŋ	
Lateral	Voiceless									
	Voiced				l					
Approximants	Voiceless									
	Voiced	w				r		j		

Figure 5.3. English Consonant Phonemes (VPM)

5.3. Description of RP Consonants : Articulatory features and Variants

The articulatory features, namely the basic areas (VPM), used for describing consonant phonemes can be extended to include various allophonic realizations(variants) which are conditioned by different contexts.

5.3.1. Plosives (also known as oral stops/occlusives) [p, t, k, b, d, g, ʔ]: are sounds in which there is a complete closure at some point in the vocal tract, behind which the air pressure builds up and can be released with a small burst of sound called ‘plosion’. In the articulation of the English plosives, three (3) phases can be distinguished:

- a) **The closing stage:** the articulators are pushed together to form a complete closure;
- b) **The hold/compression stage:** the pressure behind the closure builds up;
- c) **The release or explosion stage:** a plosion takes place, allowing the air trapped behind the closure to escape.



Figure 5.3. Description of English Plosives Production

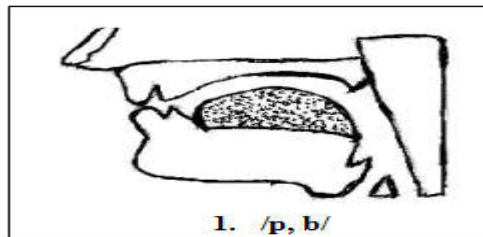
1. **Voicing (V)** : The released sound of English plosives can be:

- Voiceless (Fortis) → /p, t, k/
- Voiced (Lenis) → /b, d, g/

2. **Place and Manner of Articulation (PM)**:

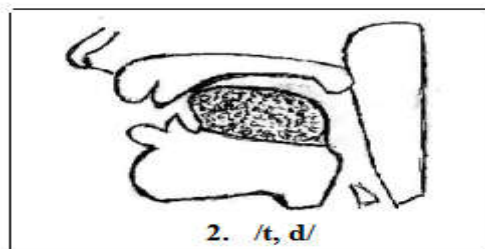
- /p, b/ → **Bilabial** → the primary obstruction is made by the closure of the lips.

☛**Compare:** post, boast, peach, beach, rapid, rabid, simple, symbol, rope, robe.



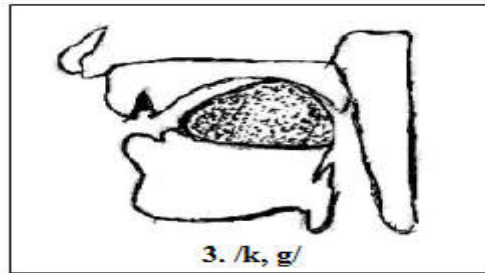
- /t, d/ → **Alveolar** → the primary obstruction/blockage is made by a closure made between the tip and the rims of the tongue and the upper alveolar ridge and side teeth.

☛**Compare:** town, down, latter, ladder, water, warder, written, ridden, tune, dune.



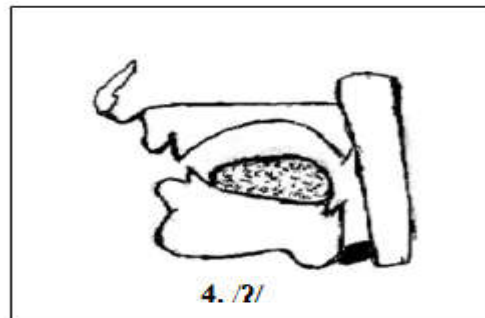
- /k, g/ → **Velar** → the primary obstruction/blockage is made by a closure made between the back of the tongue and the soft palate.

☛**Compare:** cap, gap, coat, goat, clue, glue, decree, degree, pick, big, back, bag



- /ʔ/ → **Glottal** → the primary obstruction/blockage is made by the closure of the vocal cords which interrupt the passage of air into the supra-glottal organs.

☞ Study this: ‘cooperate’ [kəʊ’ʔɒpəreɪ t], ‘reaction’ [ri’ʔækʃn]



3. Variants: Allophonic release of the plosives may be:

3.1. Aspiration: when the English voiceless (fortis) plosives /p/, /t/, /k/ are released, they undergo a post-release phase in which they are accompanied with a **brief additional puff of air**. Cruttenden (2014: 164) defines the post-release phase as “a voiceless interval consisting of strongly expelled breath between the release of the plosive and the onset of the following vowel”. The IPA diacritics for aspiration are transcribed as a superscript: [ʰ]

- a. /p/, /t/, /k/ are said to be aspirated when initial in accented / stressed syllable as in:
→ ‘pin’ [p^hin], ‘tin’ [t^hin], ‘kin’ [k^hin]
- b. This aspiration is relatively weak when preceding a vowel in unaccented syllables, as in:
→ ‘polite’ [pə’laɪtʰ], and in word final position, as in ‘lip’ [lɪpʰ]
- c. When /s/ precedes /p, t, k/ initially in a syllable, there is practically no aspiration, even when the syllable carries a strong accent. Compare:
→ ‘pin’ [p^hin] & ‘spin’ [sp=ɪn]

d. When /l, r, w, j/ follow initial /p, t, k/, the aspiration is manifested in the devoicing of [ɫ, ɽ, ʍ, ɟ], as in:

→ ‘please’ [pɫi:z], ‘try’ [tɽaɪ], ‘quiet’ [kʍaɪət], ‘pure’ [pɟʊə].

3.2. Glottalisation: A glottal release or closure [ʔ] may occur:

a. Immediately before the plosive sounds /p, t, k/ at the end of a syllable, as in:

→ ‘smart’ [sma:ʔt], ‘shock’ [ʃɒʔk], ‘type’ [taɪʔp], ‘butter’ [ˈbʌʔtə]
‘atmospheric’ [æʔtməsˈferɪk], ‘accurate’ [ˈæʔkjərət]

b. Instead of the plosive articulation, a complete closure is made at the glottis to cause a period of silence, which is very typical of the sound /t/ in American English, as in:

→ ‘bottle’ [bɒʔl], ‘water’ [wɔ:ʔə]

3.3. Loss of Plosion: A plosive sound followed by another plosive sound seems to have **no audible release**, as in:

→ ‘captain’ [kæptən], ‘wiped’ [waɪpt]

→ ‘obtain’ [əbteɪn], subconscious [sʌbkɒnʃəs], object [ɒbdʒɪkt]

3.4. Nasalisation/Nasal Plosion: The plosive becomes nasalized (nasal release) when it is followed by a nasal sound. The release of the plosive sound happens by lowering the soft palate so that air escapes through the nose. The diacritic is a small [̃] symbol above the sound, as in:

→ ‘topmost’ [tɒp̃mɔʊst], ‘good night’ [gʊd̃naɪt], ‘black magic’ [blæk̃ˈmædʒɪk]

→ ‘submerge’ [səb̃mɜ:dʒ], ‘ribbon’ [rɪb̃ən].

3.5. Lateralisation/Lateral Plosion: The plosive sound becomes lateralized (lateral release) when the compressed air for the production of this plosive is released by lowering the sides of the tongue before the lateral sound /l/. It is indicated by a vertical line [ˀ], as in:

→ ‘please’ [pˀli:z], plosive [pˀlɔʊsɪv], lightly [laɪtˀli]

→ ‘bubble’ [bʌbˀəl], ‘blow’ [bˀlɔʊ]

3.6. Devoicing: Although the plosives /b, d, g/ are classed as voiced, in some contexts, they can be voiced for only part of their time:

a. Inter-vocality: The lenis sounds /b, d, g/ are fully voiced when they occur in position between voiced sounds including vowels, as in:

→ ‘leader’ [li:də], ‘labour’ [leibə], ‘to be’ [tə bi:], ‘eager’ [i:gə]

b. completely voiceless, as in: ‘bad’ [bæd], ‘frog’ [frɒg]

3.7. The plosives /p/ and /b/ are silent in certain words, as in:

→ ‘pneumonia’ [nju:’məʊniə], ‘psalm’ [sa:m], receipt [ri’si:t], ‘cupboard’ [kʌbəd].

→ ‘climb’ [klaɪm], ‘lamb’ [læm], ‘comb’ [kəʊm]

5.3.2. Fricatives [f, v, θ, ð, s, z, ʃ, ʒ, h]: are continuant sounds in which two organs are brought and held sufficiently close together for the escaping airstream to produce a hissing noise called ‘friction’.



Figure 5.4. Description of English Fricatives Production

1. Voicing : The released sound of English fricatives can be:

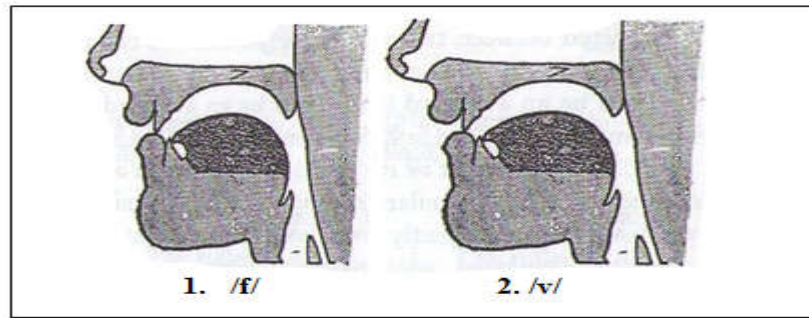
- Voiceless (Fortis) → /f, θ, s, ʃ, h /

- Voiced (Lenis) → /v, ð, z, ʒ/

2. Place and Manner of Articulation : fricatives can be:

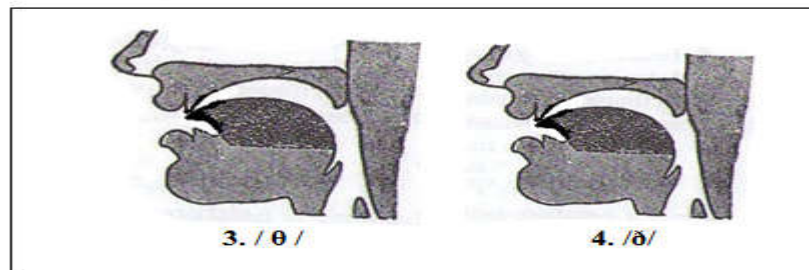
- / f, v / → **Labio-dental** → The primary obstruction/constriction is made by the lower lip and upper teeth, creating turbulence for the air, but not stopping its passage out of the mouth.

☛ **Compare:** fine, vine ; fat, vat; few, view ; offer, hover; surface, service; laughter, larva ; camphor, canvas ; leaf, leave ; proof, prove; safes, saves



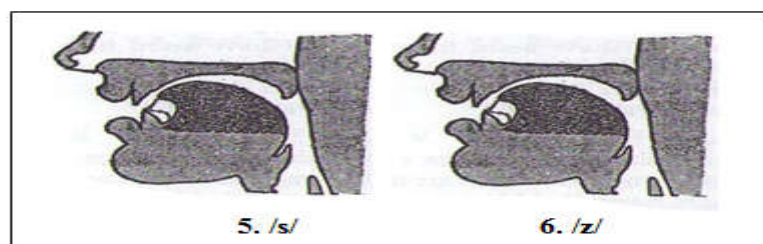
- / θ, ð / → **Dental** → The primary obstruction/constriction is made by touching the tongue to the bottom edge of the front upper teeth, creating a narrow opening through which the air passes.

☛**Compare:** thigh, thy ; ether, breather ; earthy, worthy ; wreath, wreath ; mouth (n), mouth (v) ; oath, clothe



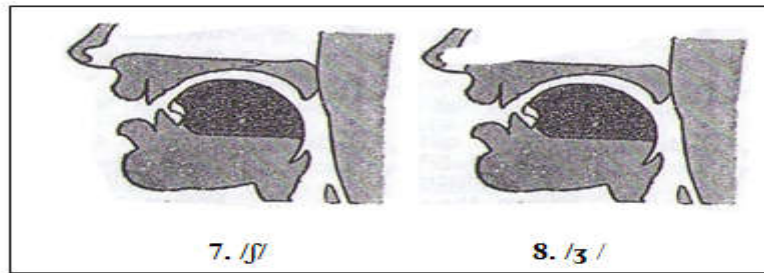
- / s, z / → **Alveolar** → The primary obstruction/constriction is made by touching the tongue to the alveolar ridge, creating a narrow opening through which the air passes.

☛**Compare:** seal, zeal ; sink, zinc ; de cease, disease ; passing, parsing ; fussy, fuzzy ; racer, razor ; peace, peas ; loose, lose ; use (n), use (v) ; gross, grows ; ice, eyes



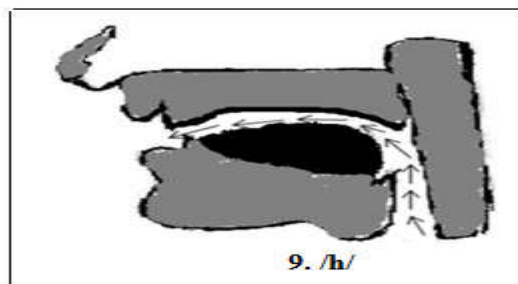
- / ʃ, ʒ / → **Palate-alveolar** → The primary obstruction/constriction is made by touching the tongue to the hard palate , creating a narrow opening through which the air passes. Compare

☛**Compare:** pressure, pleasure ; completion, decision ; selection, confusion



- /h/ → **Glottal** → The primary obstruction/constriction is made by tightening the glottis, creating a narrow opening through which the air passes before entering the mouth.

☛ **Compare:** hour, hate, eight ; hill, ill ; haul, all ; hold, old



3. Variants: The articulatory variants of fricatives can be:

3.1. Assimilation (progressive, regressive or double): a process in which one speech sound is changed to become identical with (resemble) a neighbouring sound.

a. /f, v/

- Word final /v/ may assimilate to /f/ before a fortis consonant initial in the following word, as in:

→ ‘have to’ /hæftə/, ‘love to’ //lʌftə/, ‘have some’ /hæfsʌm/

- In familiar speech the /v/ may be omitted in the case of the unaccented form of ‘of’, ‘have’, as in:

→ ‘a lot of money’ /ə ‘lɒtə ‘mʌni/,

→ ‘I could have bought it’ /aɪ kəd ə ‘bɔ:t it/

- /f/ has taken a place in the word ‘lieutenant’ /leftənənt/ yet in American English it is pronounced /l(j)u: tenənt/

b. /θ, ð/

- /θ, ð/ offer difficulties of articulation when followed by /s, z/, thus they are sometimes elided, as the case of:

→ ‘clothes’ /klaʊz/, ‘months’ /mʌns/, or /mʌnts/

- In sequence of the type /s, z/ followed by unaccented /ð/, the preceding alveolar articulation may influence the dental fricative in rapid speech. For example:

→ ‘Is there any?’ /ɪz zər ‘eni/ ; ‘what’s the time?’ /wɒts zə ‘taɪm/ ;

→ ‘all the way’ /ɔ: də ‘weɪ/ ; ‘In the morning’ /ɪn nə ‘mɔ:niŋ/

c. /s, z/

- /s/ is often replaced by a weaker articulation of /z/, as in the case of:

→ ‘horse riding’ /hɔ:z ‘raɪdɪŋ/

- Word final /s, z/ is assimilated before /ʃ, ʒ/, as in:

→ ‘miss you’ /mɪʃ jə/; ‘please you’ /pli:ʒ jə/

d. /ʃ, ʒ/

- The lack of words distinguishable by /ʃ/ & /ʒ/ results in possible alternation between these two sounds, as in:

→ ‘Asia’ /eɪʃə, eɪʒə/ ; ‘version’ /vɜ:ʃən, vɜ:ʒən/.

- In word final position, where /ʒ/ exists only in French loan words, a variant with /dʒ/ is always possible, as in:

→ ‘rouge’ /ru:ʒ, ru:dʒ/ ; ‘garage’ /gæra:ʒ, gæridʒ/

5.3.3. Affricates (also called occlusive constrictive) [tʃ, dʒ]: are complex consonants that begin as stops (most often an alveolar, such as /t/ or /d/ with initial complete closure) but release as a fricative (release through constriction).

☞ Notice that not all sequences of plosives plus fricatives can be classed as affricates. The plosive and the following fricative must be **homorganic**, which means that the place of articulation of the plosive is the same or nearly the same as that of the paired fricative. For example, in the middle of the word ‘breakfast’, the plosive /k/ followed by the fricative /f/ are not homorganic, but /t, d/ and /ʃ, ʒ/ being made with the tongue blade against the alveolar ridge, are homorganic. This feature still leaves the possibility for other affricates to be formed such as /tr/ and /dr/ (Roach, 2009).

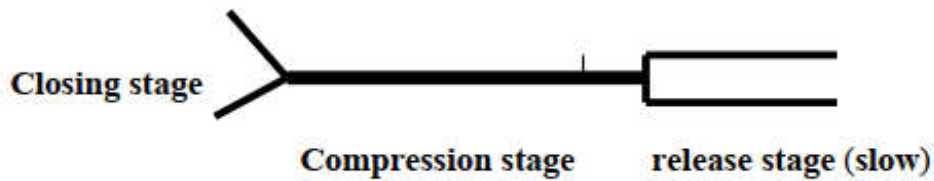


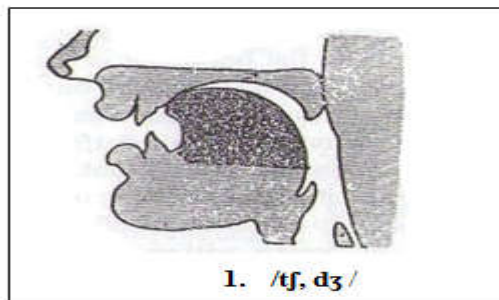
Figure 5.5. Description of English Affricates Production

1. **Voicing (V)** : The released sound of English fricatives can be:
 - Voiceless (Fortis) → /tʃ/ , /tr/
 - Voiced (Lenis) → / dʒ/, /dr/

2. **Place and Manner of Articulation (P)**: fricatives can be:

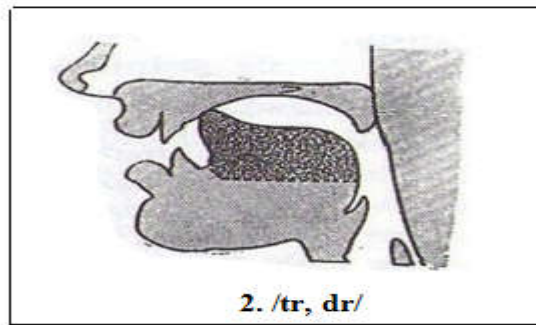
- /tʃ, dʒ / → **Palato-alveolar** → The obstacle to the air-stream is formed by a closure made between the tip, blade, and rims of the tongue and the upper alveolar ridge and side teeth. At the same time, the front of the tongue is raised towards the hard palate in readiness for the fricative release. The closure is released slowly.

☞**Compare:** choose, Jews ; choke, joke ; cheer, jeer ; catches, cadges ; nature, major ; a venture, avenger ; riches, ridges



- /tr, dr/ → **Palato-alveolar** → The obstacle to the air-stream is formed by a closure made between the tip and rims of the tongue and the rear edge of the alveolar ridge and the upper side teeth. The centre of the tongue is hollowed in readiness for the /r/ type friction, which result from the slow release of the stop.

☞**Compare:** trip, drip ; trench, drench ; tram, dram ; trunk, drunk ; troop, droop



3. **Variants:** No important articulatory variants of affricates are found.

5.3.4. Nasals (called nasal stops or occlusives, and sometimes also are referred to as continuants) [m, n, ŋ]: are formed by closing the mouth at some point, and at the same time lowering the soft palate, so that the air can escape through the nose.

1. **Voicing :** All English nasals are:

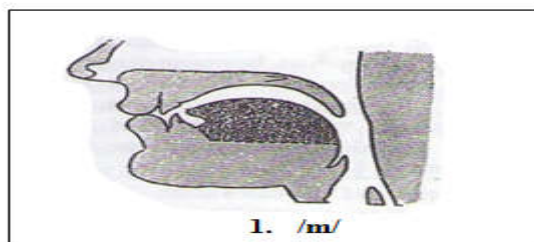
- Voiced (Lenis) → / m, n, ŋ /

☞ Voicing is said to be a *redundant feature (redundancy rules)* for nasal consonants. In other words, whenever a phoneme is nasal, it is deemed to be voiced.

2. **Place and Manner of Articulation:** Nasals can be:

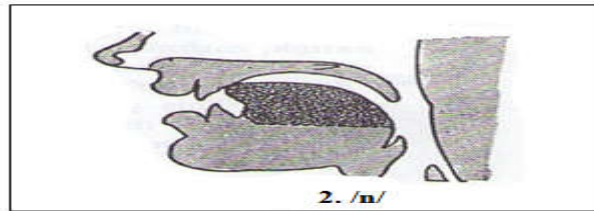
- /m/ → **Bilabial** → the air is blocked by closing the two lips.

☞ **Consider (Word initial, medial and final) :** meat, March, move, lemon, salmon, Thomas, warm, tomb, film, game.



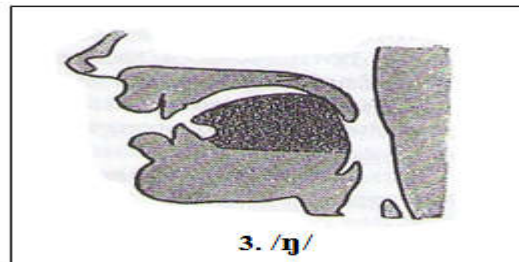
- /n/ → **Alveolar** → the air is blocked by pressing the blade of tongue against the alveolar ridge.

☞ **Consider (Word initial, medial and final):** knit, none, nurse, near, snatch, snore, many, monitor, mean, phone.



- /ŋ/ → **Velar** → the air is blocked by pressing the back of the tongue against the soft palate.

⇒ Consider (regularly spelt ‘ng’ which does not occur initially/ but medially and finally+ /k/or /g/): singer, hanger, anxiety, anchor, monkey, wrong, tongue, among, sink(s), rank(s -ed).



3. **Variants:** the allophonic realizations of nasals may be:

3.1. Devoicing:

- /m/ is partially devoiced by a preceding voiceless consonant: The devoiced /m/ is described as [m̥]:

- initially, as in ‘smoke’ [sm̥ əʊk] ;
- medially, in ‘topmost’ [tɒpm̥ əʊk] ;
- finally, in ‘happen’ [hæpm̥]

- /n/ is devoiced after a voiceless consonant and in particular after /s/. The devoiced alveolar nasal is described as [n̥] as in:

- ‘snake’ [sneɪk], ‘sneeze’ [sneɪz], ‘snail’ [sneɪl]

3.2. Labio-Dental release: When /m/ or /n/ are followed by a labio-dental fricative sound /f, v/, the front closure may be labio-dental rather than bilabial. The labio-dental sound is described as [mf], for instance:

- ‘comfort’ [kʌmfət], ‘warm vest’ [wɜ:mfvɛst], ‘come first’ [kʌmfɜ:st]
- ‘on fire’ [ɒnfɪə], ‘in vain’ [ɪnveɪn], ‘infant’ [ɪnfənt]

3.3. Syllabic Nasals: Some syllables have **syllabic sonorants** as their nucleus. Nasals /n/, /m/ and/ŋ/ serve the function of the nucleus, and in these positions, they are noted with a small vertical diacritics underneath the symbol. Of the three syllabic nasals, the most frequently found is [n̩].

a. The alveolar syllabic [n̩] is most common in an unstressed (accented) syllable after:

→ alveolar plosives /t, d/, as in: often' [ɒft̩n̩], 'sudden' [sʌd̩n̩]

→ fricatives /s, z/ ,/f,v/ as in: innocent[ɪnəs̩nt̩], 'risen'[raɪz̩n̩], 'often' [ɒft̩n̩], 'seven' [sev̩n̩]

→ bilabial consonants, as: 'happen'/hæpən/ or [hæp̩n̩], 'ribbon'/ribən/ or [rib̩n̩]

☞ There is no syllabic [n̩] after /l/, or /tʃ, dʒ/, so that, for example,

→ 'sullen' must be pronounced /sʌlən/, or 'Christian' as /krɪstʃən/

b. The bilabial syllabic [m̩] can be found in examples such as:

→ [hæpm̩] in 'happen', 'upper most' [ʌp̩ m̩ əʊst]

c. The velar syllabic / ŋ̩ / may occur in final position when preceded by a velar consonant /k, g/, as in:

→ 'broken' [brʊk̩ŋ̩] ; 'bacan' [beɪk̩ŋ̩] ; 'organ' [ɔ:g̩ŋ̩]

5.3.5. Lateral [l]: only one consonant is articulated laterally, that is, instead of the breath passing down the centre of the mouth; it passes round the sides of an obstruction set up in the centre by pressing the tip and blade of tongue against the alveolar ridge.

1. Voicing :

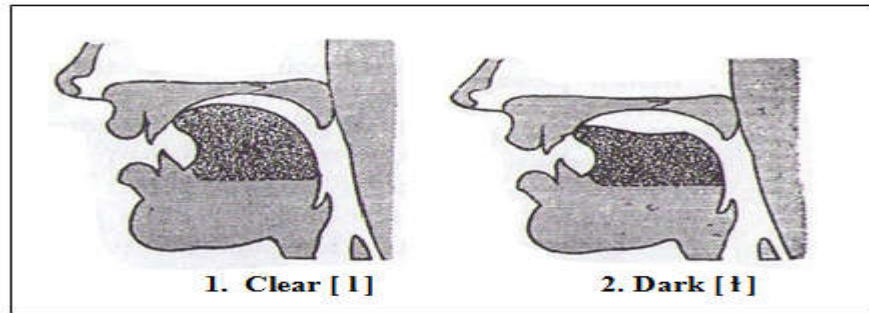
- Voiced (Lenis) → /l/

2. Place and Manner of Articulation

- /l/ → **alveolar lateral** → The airstream is obstructed at a point (partial closure) along the center of the vocal tract so that the air flows over the sides of the tongue.

- /l/ is regularly spelt as 'l' or 'll', it never occurs after initial stressed / t /.

☞ **Consider (word initial, medial and final):** leave, let, lock, silly, yellow, feel, fall, call.



3. Variants:

3.1. Devoicing:

- **Voicless / devoiced [l̥]** following accented ‘aspirated’ / p, k /, as in:

→ play [p̪leɪ], clay [kleɪ]

3.2. Palatalisation: refers to a process by which a sound, usually a consonant, is articulated with the tongue shifted near the hard palate.

- Palatalised Clear /l̪/:** can be realised with the tongue slightly raised toward the palate. and it occurs before vowels, e.g.:

→ light [laɪt̪], love [lʌv̪]

- Non-Palatalised Dark [ɫ]:** is realised in other contexts: before consonants and in the final positions of words, e.g.:

→ milk [mɪɫ], ball [bɔːɫ]

3.3. Syllabic [l̩] : After the stop consonants, it is less desirable to have the vowel (ə) between the stop and the /l/, as in:

→ apple [æp̩l̩], table [teɪb̩l̩], eagle [iːgl̩]

5.3.6. Approximants [w, j, r] involve the articulators approaching each other but not narrowly enough (never completely block the flow of air) nor with enough articulatory precision to create turbulent airflow (not fricatives). Approximants have been variously referred to as ‘frictionless continuants/liquid’ : [r], and ‘semivowels /glides’: [w, j] which are very similar to close vowels such as /u/ and /ɪ/, but are produced as a rapid glide.

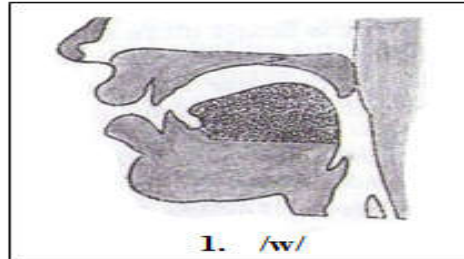
1. Voicing : All English approximants are:

- Voiced (Lenis) → /w/, /j/, /r/

2. Place and Manner of Articulation: approximants can be:

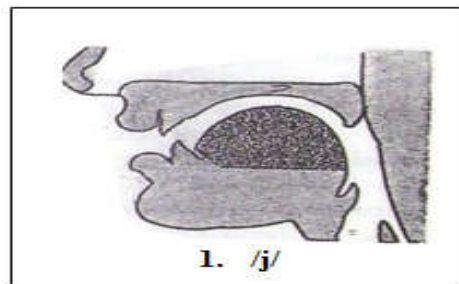
- /w / → **Bilabial** → is articulated with lip- rounding depending on the degree of openness of the following sound and a frictionless narrowing of tongue and velum, which is in its raised position and the vocal chords vibrate.

☛ **Consider (word initial and medial/no cases for word final):** whisper, wallet, always, reward, swim, swear.



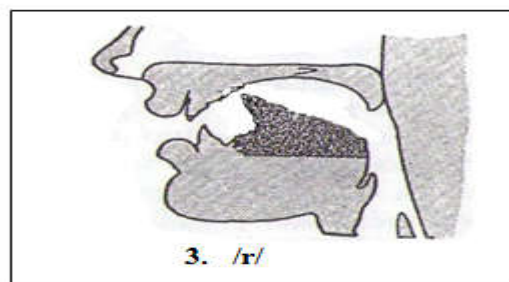
- /j/ → **Palatal** → the front of the tongue is raised towards the hard palate, and immediately leaves this position to take up that of the vowel which follows it.

☛ **Consider (word initial, medial/no cases for word final):** yacht, union, duty, music, new, value



- /r/ → **Post Alveolar** → has a constriction of the air flow but not one that is sufficiently obstructive to produce friction, which means the air escapes freely without friction over the central part of the tongue.

☛ **Consider (word initial, medial and final):** reinforce, ready, rain, mirror, very, arrow, far, dare, war (for rhotic accents)



3. **Variants:** the phonetic variants of English approximants may be:

3.1. Devoicing: Though /w, j, r/ are classed as voiced sounds, they can be:

- **Completely devoiced** [ɱ], following accented /t, k/, as in:
→ twice [tɹaɪs], queen [kwi:n]
- **Completely devoiced** [j̥] or [ç] following accented /p, t, k, h/, as in:
→ pure [pʃʊə], tune [tʃu:n], cure [kʃʊə], huge [hʃu:dʒ]
- **Devoiced** [ɹ̥] in consonant cluster following:
 - fortis accented plosives, as in: price, proud, tree, try, cream, crow, expression.
 - fortis fricatives, as in: afraid, throw, shrink,
 - unaccented fortis plosives, as in: apron, nitrate, buckram, cockroach.
 - fortis plosives preceded by accented /s/ in the same syllable (**spr, str, skr**), as in: spring, sprat, street, strain, scream, scrape.

3.2. Other Allophonic variations of /r/:

- **Fricative** [r̥]:
→ After the alveolar plosive /d/, as in: **dress, address, drain, drought**
- **Intrusive [R]**: the insertion of /r/ between a word ending in a vowel, and another one immediately following and beginning with a vowel, as in:
→ idea of, law and order
- **Linking [R]**: occurs when a word ends in ‘r’ or ‘re’ and is immediately followed by a word beginning with a vowel, as in:
→ answer it, door in the hall, tear it, poor old man, more of it, more and more

5.4. Self Assessment Exercises

5.4.1. Write the phonetic symbol for the first sound in each of the following words according to the way you pronounce it

- | | |
|-----------------|-------------------|
| 5. write [] | 2. psychology [] |
| 3. standard [] | 4. variety [] |
| 5. church [] | 6. count [] |
| 7. though [] | 8. knit [] |

5.4.2. Circle the words that contain:

1. a fortis (voiceless) plosive:

- bead, set, buy, go, crow, girl, door, but, dirty, paper, gate, dog, going, ball)

2. a bilabial plosive:

- tomb, letter, order, peace, done, bomb, tongue, daddy, rubber, doll)

3. an aspirated plosive:

- Sky, bell, car, spy, slate, time, dime, attack, import, stick)

4. a lenis (voiced) fricative:

- zeal, sort, thank, though, pleasure, rush, laugh, poor, variety.

5. a dental fricative:

- so, lace, although, fall, thick, now, that, vision, theory, account.

5.4.3. Write the correct phonetic symbol corresponding to each of the following description (the features voiced, voiceless, lenis and fortis are used interchangeably):

1. Voiced bilabial plosive → / /
2. Voiceless alveolar fricative → / /
3. Voiced palato-alveolar affricate → / /
4. Voiced alveolar plosive → / /
5. Lenis dental fricative → / /
6. Fortis labiodentals fricative → / /
7. Voiced bilabial nasal → / /
8. Voiced palatal approximant → / /

5.4.4. Which of the following sound pairs have the same manner of articulation? Write

Same (S) or different (D)

1. [f] [ʃ]
2. [k] [θ]
3. [j] [w]
4. [ð] [v]
5. [m] [ŋ]

5.4.5. Give the VPM of the following consonants as shown in the example

No	Consonants	Voicing	Place of articulation	Manner of articulation
e.g.	/s/	voiceless	alveolar	fricative
01	/p/			
02	/v/			
03	/θ/			
04	/tʃ/			
05	/dr/			

5.4.6. What phonetic property or feature distinguishes the sets of consonant sounds in column A from those in column B?

Column A	Column B	Distinctive phonetic property
[p] [t] [k] [s] [f]	[b] [d] [g] [z] [v]	.....
[p] [b] [m]	[t] [d] [n]	.....
[f] [v] [s] [z] [ʃ] [ʒ]	[tʃ] [dʒ]	.....
[m] [n] [ŋ]	[l]	.....
[f] [θ] [s] [ʃ]	[v] [ð] [z] [ʒ]	.....

5.4.7. For each group of sounds listed, state the phonetic feature(s) they all share

Sound Group	Shared Feature(s)
/m/ /n/ /ŋ/
/tʃ/ /s/ /p/ /k/ /f/ /ʃ/ /t/ /θ/ /h/
/f/ /v/ /θ/ /s/ /r/ /w/
/dʒ/ /z/ /b/ /g/ /v/ /ʒ/ /d/ /ð/
/l/ /r/

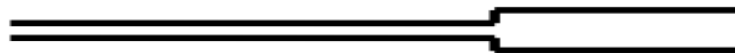
5.4.8. Name the distinctive features of each of the following sounds in the square brackets provided

[p ^h]	[ī]	[m]	[ʃ]	[ʔ]
.....

5.4.9. Transcribe these words phonemically and phonetically

Words	Phonemic Transcription / /	Phonetic Transcription []
aware		
phonetics		
young		
secure		
arrive		
three		

5.4.10. Describe briefly the articulation of English fricative consonants



.....

5.4.11. Describe the movements of the articulators in the first word of the above list (*cheese*)

5.5. Reflective Exercises

5.5.1. It was explained before that affricate consonants begin as plosives and end as fricatives. However, the definition of an affricate must be more restricted than what has been given so far. We would not class all sequences of plosives /p,t,k, b,d,g, ʔ/ plus fricative as affricates. For example, we find in the middle word ‘breakfast’ the plosive /k/ followed by the fricative /f/, but /kf/ is generally not accepted as an affricate. **Why? For what reason the consonantal unit /kf/ does not form an affricate in the way that /tʃ/, for example, seems to?**

5.5.2. Within the alveolar lateral / l / phoneme three main allophones may occur: clear [l] , voiceless/ devoiced [l̥] and dark [l̤], not forgetting that the phoneme /l/ can also be syllabic [l̩].

1. Transcribe the following words with the lateral phoneme /l/

Words	Phonemic Transcription / /	Phonetic Transcription []
allow		
clean		
feel		
camel		

2. Compare the phonetic transcription of the words listed above. What do you notice?
3. Describe what movements are carried out in the pronunciation of the lateral allophone in the third word above (feel)
4. What is meant by the velarization of the phoneme /l/?
5. Describe the velarized allophone [l̤] in Classical Arabic?

5.5.3. Are there any consonant sounds in English language (RP English) that do not exist in your native language sounds system? If yes, describe them and say if they are difficult for you to pronounce.

5.5.4. Are there any consonant sounds in your language that do not exist in English language sounds system (RP English)? If yes, describe them (Please write IPA symbols – not letters)

5.6. Online Quiz and Assignment Link

[https://moodle.univ-tiaret.dz/course/view.section-5 \(consonants\)](https://moodle.univ-tiaret.dz/course/view.section-5 (consonants))

6

Syllable Structure and Word Stress

Unit Aim: This unit expands beyond the segmental level; it briefly introduces the concept ‘syllable’, its structure and some factors predicting stress placement.

Section	Lecture/Discussion Format	Learning outcomes: After the successful completion of this sub-section, the student will be able to:	Learning Activities		Instructional (Blended) Procedures & Materials	
			In Class	Online		
6.1. Introducing Syllable	6.1.1. Phonetic and Phonological definitions	<ul style="list-style-type: none"> Explain what a syllable is from phonetic and phonological perspectives 	Self Assessment Activities	https://moodle.univ-tiaret.dz/course/view.php?id=469#section-1	Quiz	
	6.1.2. Types of Syllables (Syllabification)	<ul style="list-style-type: none"> Divide words according to their number of syllables 				
	6.1.3. Parts of Syllables	<ul style="list-style-type: none"> Illustrate how sounds are combined to bring about syllables Analyse syllable structures 				
6.2. Stressed Syllables	6.2.1. Defining Stress	<ul style="list-style-type: none"> define the term stress and explain its importance 				8. Visit this URL: https://www.youtube.com/watch?v=-hPGfPVDKks
	6.2.2. Levels of Stress	<ul style="list-style-type: none"> Distinguish between stressed and unstressed syllables 				
	6.2.3. Stress Placement: Polysyllabic words	<ul style="list-style-type: none"> Examine the factors affecting stress placement and shift Apply rules					9. Participate in the discussion board

Syllables, as important units both in phonetics and phonology, consist of an alternation between vowel-like states and consonant-like states. Previously mentioned, vowels are more essential than consonants in the formation of syllables. They occupy its center while consonants are said to be marginal. However, this view appears often not to fit the facts when we look at the phonemic structure of syllables and the difficult areas where syllabic consonants occur. Other areas of disagreement or lack of understanding may be also stronger syllables and the property ‘stress’ which makes them more noticeable.

6.1. Introducing Syllable

A syllable can be defined as an uninterrupted unit of sounds that is smaller or equal to a word. In English, a **minimum syllable** is formed by a single vowel, e.g. ‘are’ /ɑː/, ‘or’ /ɔː/. Longer syllables have one or more consonants (consonant cluster) preceding or following the vowel, as in: ‘meet’ /mi:t/, ‘consonant’ /ˈkɒn.sə.nənt/. In this respect, it may be critical to keep phonetic notions of the syllable separate from phonological ones:

6.1.1. Phonetic and Phonological Definitions of the syllable

a. Phonetically, it can be observed that the flow of speech, typically used for (longer) syllable, consist of an alternation between vowel sounds states where the vocal tract can be open and unobstructed, and consonant sounds states where some obstruction/stricture to the airflow is made. In other words, a syllable articulation may consist of a movement of unobstructed state (**V**) preceded or followed by a constricted state (**C**).

☞ Notice that this view does not fit some cases of syllabic consonants (where sonorant consonant occupy the center of syllable).

b. Phonologically, the syllable is defined as “a unit of phonological organisation whose central component is a nucleus, which is normally a vowel, and which may be preceded or followed by consonants” (Carr 2008: 171).

It is worth remembering that the exact definition of syllable has often been elusive due to some confusing areas in the syllabification of words. Considering this, phonologists are

said to be interested in the structure of syllables and, more importantly, which phonemes may occur at the beginning, in the middle and at the end of syllables.

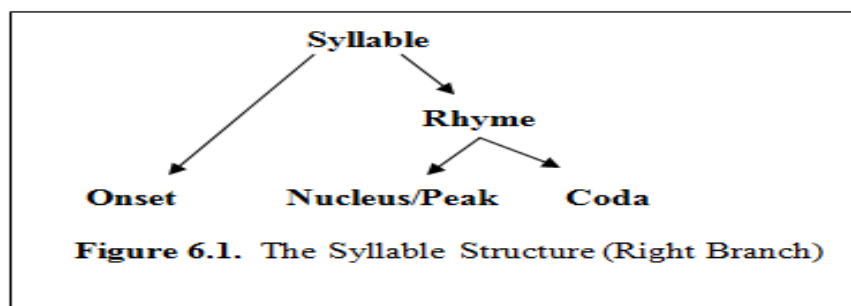
6.2.2. Types of Syllables: Syllabification

The division of words into syllables is referred to as **syllabification** or syllabication, (the number of syllables words possess) which helps to distinguish between:

1. **Monosyllabic words:** consists of a single syllable (pen, ice, man, power), or a minimum syllable (a vowel in isolation) such as: ‘a, I/eye, or,.
2. **Disyllabic words:** includes two syllables, as in: ‘describe, teacher, paper’
3. **Trisyllabic words:** a word of three syllables, as in: ‘introduce, optimist, diplomat’
4. **Polysyllabic words:** may refer either to a word of more than three syllables or to any word of more than one syllable, as in: ‘economy, educational, intelligible’

6.2.3. Syllable Structure

Phonological treatments of syllable structure usually call the first part of a syllable ‘**the onset**’, the middle part ‘**the peak/nucleus**’ and the end part ‘**the coda**’. The combination of ‘peak and coda’ is called ‘**the rhyme**’. However, in some traditional descriptions of certain languages, the syllable is considered *left-branching*, meaning that the combination of ‘onset and nucleus’ group below a higher-level unit called a ‘**body**’ or ‘**core**’. *The right branching* of the syllable is explained more fully under the separate headings below:



1. **Onset (ω):** refers to the **consonant (s)** preceding the nucleus. Except for /ŋ/, all consonants in English can appear as onsets. In the following examples, the onsets are in bold type:

→ fat, speak, string.

☞ If the first syllable of a word begins with a vowel, this syllable has a **zero** onset, as in: → ‘apply’, ‘artist’

2. Peak/Nucleus (Plural Nuclei) (v): is the core (body) or essential part. A nucleus must be present for a syllable to exist. In English, most syllable nuclei are vowels but they can be sonorant sounds (syllabic consonants). For example:

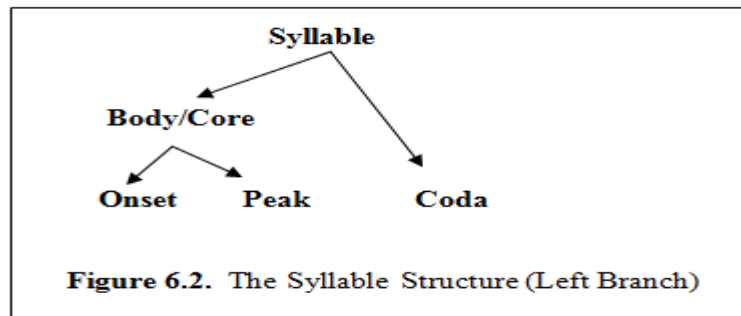
→ ‘mad’ /æ/, ‘mate’ /ei/, ‘start’/a:/

→ ‘trouble’ [ˈtrʌ**bl̩**], ‘pigeon’ [ˈpiːdʒ**ɪ**], ‘often’ [ɒf**n̩**]

3. Coda (κ): is usually one or more **consonant**. The coda may or may not exist (zero coda) in some syllables. For example: → ‘mean’, ‘fight’, ‘red’ , **zero coda:** ‘bee’

4. Rime (Rhyme) (ρ): for right branch, contrasts with onset, splits into nucleus/peak and coda.

5. Body or core: for left branch, contrasts with coda, splits into onset and nucleus.



6. Tone (τ): it may be carried by the syllable as a whole or by the rime (rhyme)

☞ This structure syllable can be abstracted as a **consonant-vowel-consonant** syllable, abbreviated **CVC**. But, languages vary greatly in the restrictions (constraints) on the sounds making up the onset, nucleus and coda of a syllable. **Phonotactics** is a branch of phonology that deals with restrictions in a language on the permissible combinations of phonemes. It defines permissible syllable structure, consonant clusters, by means of *phonotactical constraints*.



Syllables are claimed to be **strong** or **weak** (Roach 2009). The **strong** syllables are relatively longer, more intense, and different in quality as they have the potential to be described as **stressed**. The **weak** syllables contain /ə/, /i/ or /u/ and are never stressed. Syllabic sonorants are also counted as forming weak syllables.

6.2. Word Stress

6.2.1. Defining Stress

Unlike segments (consonants and vowels), stress is a supra-segmental feature. It is a property of syllables that is usually equated with the notions of **emphasis** and **strength**. Stated differently, stressed syllables seem to be pronounced louder (intensity), longer (duration), higher (pitch), and therefore stronger and more noticeable than unstressed ones..

It seems likely that stressed syllables are produced with greater effort than unstressed ones. This effort, manifested in the air pressure generated in the articulatory movements in the vocal tract, produces various audible results such as:

- a. **Pitch prominence (high/low pitch):** the frequency of vibration of the vocal chords. Stressed syllables are produced with *higher frequency*, meaning that the vocal cords vibrate more quickly and this is heard as *higher pitch*.
- b. **Intensity (energy):** stressed syllable are produced with greater intensity which is perceived by the listener as greater **loudness**. Thus, stressed syllables tend to be *louder* than (adjacent) unstressed ones.
- c. **Duration:** another effect of stress. Stressed syllables tend to be longer than unstressed ones in English language.

	Loudness	Vowel Length	Vowel Quality	Pitch
Stressed Syllable	Loud	Long	Strong	High
Unstressed Syllable	Quiet	Short	Weak	Low

Table 6.3. The prominence characteristics of stressed and unstressed Syllables
(Adapted from Roach 2009: 74)

6.2.2. Levels of Stress

In English, there are more than one level of stress, that is to say, there are more than stressed and unstressed syllables. Consequently, it is possible to determine syllables holding the:

1. **Primary stress:** denotes the strongest syllable (produced with more energy than other adjacent syllables) of a word. It is indicated by a high vertical line [ˈ] on the top of the stressed syllable as in: correct /kəˈrekt/
2. **Secondary stress:** denotes syllables which are not completely unstressed, but are not as loud as those denoted by the primary stress. It is marked with a lowered vertical line [ˌ] at the beginning of the syllable as in: pronunciation /prəˌnʌnsiˈeɪʃn/

☞ Notice that some languages are said to have **fixed stress** while some others have **free stress** which is difficult to predict. Furthermore, free word stress may be either **constant** (remaining on the same syllable in different word class or in different derivatives from the same root, e.g. **wonder**, **wonderful**, **wonderfully**) or **shifting** (varying between the syllables, e.g. **economy**, **economic**)

6.2.3. Stress Placement: Polysyllabic words

Though English is said to be a **free** (not a fixed) **stress** language, word stress can be fairly predictable. More precisely, **syllabification** (the syllable number in the word) and **morpho-syntactic categories** of the word are the main factors that can predict the placement of stress in English.

6.2.3.1. **Syllabification:** table 6.4. presents stress patterns according to syllabification

Syllabification	Category	Stress is on:	Examples
	Nouns	1. the first syllable if: the second syllable contains a short vowel.	-money / ˈmʌni / -product / ˈprɒdʌkt /
		2. the second syllable if it contains: - a long vowel or diphthong	-balloon / bəˈluːn -estate / ɪsˈteɪt /

Disyllabic Words (Either the 1 st or the 2 nd Syllable)	Verbs	1. the first syllable: if the second/final syllable contains: - a short vowel - one or no final consonant -the diphthong /əʊ/	-enter / 'entə / -open / 'əʊpən / -follow / 'fɒləʊ /
		2. the second syllable if it: 10. contains long vowel or diphthong 11. ends with more than one consonant	-apply / ə'plai / - attract / ə'trækt /
	Adjectives	1.the first syllable if it contains: 12. a short vowel 13. one or no final consonant 14. the diphthong /əʊ/	-lovely / 'lʌvli / -even / 'i:vən / -hollow / 'hɒləʊ /
		2.the second syllable if it : 15. contains a long vowel or diphthong 16. ends with more than one consonant	-divine / dɪ'vaɪn / -alive / ə'laɪv / -correct / kə'rekt /
Syllabification	Category	Stress is on:	Examples
Polyllabic Words (Trisyllabic words)	Nouns	1.the first syllable if: - both the middle & final syllables contain short vowels. - end with no more than one consonant	-quantity / 'kwɒntəti / -emperor / 'empərə / -custody / kʌstədi /
		2.the middle syllable preceding the final syllable if it: 17. contains a long vowel or a diphthong 18. ends with no more than one consonant 19. if the final syllable contains a short vowel or the diphthong /əʊ/	-researcher / rɪ'sɜ:tʃə / -mimosa / mɪ'məʊzə / -postgraduate / pəʊst'grædʒuət / -attractive / ə'træktɪv / -disaster / dɪ'zɑ:stə / -potato / pə'teɪtəʊ /
	1.the middle syllable preceding the final syllable if this latter: 20. contains a short vowel 21. ends with no more than one consonant	-encounter / ɪŋ'kaʊntə / -determine / dɪ'tɜ:mɪn /	

	Verbs	2.the final syllable if it: 22. contains long vowel or diphthong - ends with more than one consonant	-entertain / intə'teɪn / -resurrect / rɪzə'rekt /
Polysyllabic Words (More than 3 Syllables)	Adjectives	1.the penultimate syllable (the syllable from the en) as in: 23. eous 24. ial 25. ic/ics 26. ion	-advantageous /ædvən'teɪdʒəs / -proverbial /prə'vɜ:bɪəl/ -phonetic(s) /fə'netɪk(s)/ -perfection /pə'fekʃn/
		2.the anti-penultimate syllable (the third syllable from the end) as in: -y/ -ity -ive -graphy	-tranquility /træŋ'kwɪlɪti/ -reflexive /re'fleksɪv/ -photography /fə'tɒgrəfi/

Table 6.4. Stress patterns according to syllabification

6.2.3.2. Stress Shift: Syntactic Categories

Below are different parts of speech (nouns and verbs) differentiated by means of **shifting of the stress** and also, in some case, changing **the vowel quality**:

Nouns		Verbs	
increase /'ɪnkri:s /		increase /ɪn'kri:s/	
insult /'ɪnsʌlt/		insult /ɪn'sʌlt /	
impress /'ɪmpres/		impress /ɪm'pres/	
transport /'trænsɔ:t/	Changing the Vowel Quality	transport /træn'spɔ:t/ or /trən'spɔ:t	
torment /'tɔ:ment/		torment /tɔ:'ment/ or /tə'ment/	
combine /'kɒmbaɪn/		combine /kəm'baɪn/	
conduct /'kɒndʌkt/		conduct /kən'dʌkt	
contrast /'kɒntrɑ:st/		contrast /kən'trɑ:st/	

6.7. Self Assessment Exercises

6.7.1. Define the following terms briefly

- | | |
|-------------|--------------------|
| 1. Syllable | 3. Segment |
| 2. Stress | 4. Syllabification |

6.7.2. Indicate whether the following statements are true (T) or false (F).

1. Vowels of English can appear in stressed and unstressed syllable
2. In English, a minimum syllable is formed by a single consonant
3. The combination of ‘peak and coda’ is called ‘the onset’
4. English vowels are said to be syllabic
5. Unstressed syllables are made with more effort than stressed ones
6. Length, loudness and pitch are the more important determiners of stress.
7. Some syllables have syllabic sonorants as their nucleus
8. English syllable may consist of a movement of unobstructed state followed or preceded by a constricted state
9. The placement of stress in English has an effect on meaning
10. The onset is the consonant at the end of syllable after the nucleus

6.7.3. Complete the following table as shown in the example

Words	Number of Sounds	Number of Syllables	Stressed Syllable (Primary stress)
E.g., introduce	9	3	3 rd syllable (from the beginning)
base			
economy			
describe			
romance			
compete			
optimist			
celebrate			
diplomat			

6.7.4. Use the rules of stress discussed above to transcribe the following words

Words	Transcription
syllabic	
phonology	
produce	
product	
transport (v)	
transport (n)	
eradicate	

6.7.7. Identify the onset, nucleus (peak) and the coda of the following monosyllabic words as shown in the example

Monosyllables	Onset	Nucleus	Coda
E.g., man	/m/	/æ/	/n/
are			
through			
our			
bee			
sound			
blank			

6.8. Reflective Exercises

6.8.1. Discuss these three questions briefly:

1. Why English is called a free stress language?
2. What factors may help predict word stress in English?
3. How can the placement of stress in English affect meaning and cause misunderstandings?

6.8.2. Provide word examples with the following syllable structures:

1. Onset+ nucleus + coda: CVC , CCVC, CVCC
2. Zero onset + nucleus + coda: 0VC, 0VCC, 0VCCC, 0VCCCC
3. Onset + nucleus+ zero coda: CV0
4. Zero onset+ nucleus+ zero coda:0V0
5. Syllabic consonants

6.8.3.Examine the structure of your native language syllables?

6.8. Online Quiz and Assignment Link

[https://moodle.univ-tiaret.dz/course/view.section-6 \(syllable & stress\)](https://moodle.univ-tiaret.dz/course/view.section-6 (syllable & stress))

List of Abbreviation

BBC	The British Broadcasting Corporation
EFL	English as a Foreign Language
IPA	International Phonetic Alphabet
IPA	International Phonetic Association
RP	Received Pronunciation
SE	Standard English

Glossary

Accent: a variety of a language which is distinguished from other forms exclusively in terms of pronunciation

Airstream: one of the several possible types of air –flow used in speech to generate sounds

Allophone: one of the possible realizations of a phoneme

Articulator: part of the vocal tract with which humans produce sound, used as a reference point for classifying consonants

Articulation: the production of speech sound by moving parts of our body.

Aspiration: noise produced by the rapid flow of air through the vocal tract, usually found after the (post-) release of English plosives.

Assimilation: a process whereby a speech sound is modified so that it becomes more similar to a neighbouring sound.

Cardinal vowels: a set of vowels that do not belong to any language, devised by phoneticians as a standard or reference.

Closure: a term usually used to refer to the coming together of the articulators, while it can also refer to the period when the compressed air is held in.

Cluster: two or more consonant phonemes in a sequence, with no vowel sound between them. For example, the word ‘stray’ /streɪ/ begins with 3 consonants, and ‘sixth’/sɪksθ/ ends with 4 consonants.

Consonant: a class of speech sound which causes an obstruction to the flow of air and usually found at the margins (beginning or/and end) of a syllable.

Constriction: a narrowing of the vocal tract.

Contrast: a notion of central importance in traditional phoneme theory., for example, in English /t/ contrasts with /p/ and /k/ in place of articulation.

Devoicing: a process that results in a sound which is voiced being pronounced as voiceless.

Diacritic: in phonetic transcription, a modifying mark added to an existing symbol.

Digraph: the combination of two symbols together to represent a single sound.

Distinctive feature: in phonology, the differences which distinguish phonemes from each other

Duration: the amount of time for which a speech or a unit of sound lasts.

Egressive: a characteristic of the airstream which moves outwards from the body.

Fortis: descriptive of a sound made with a relatively high degree of effort.

Glide: a movement from one sound quality to another. Some approximants which sound closely similar to vowels are called 'glides'.

Glottal stop: a plosive consonant with glottal place of articulation

Homorganic: two sounds which have the same place of articulation.

Intensity: a physical property of sound, dependent on the amount of energy present.

International Phonetic Alphabet (IPA): a set of symbols and conventions adopted by the International Phonetic Association as a universal for the transcription of speech sounds

Intonation: the use of **pitch** variation to convey meaning.

Lenis: descriptive of a weakly articulated sound. The opposite term is **fortis**.

Linguistic phonetics: an alternative name for phonology, this name suggests a more phonetically oriented field of study than the rather subject of phonology.

Liquid (an old fashioned term that has managed to survive): Liquids are one type of approximant, but they are different from glides in that they can be maintained a steady sounds /l/ and /r/.

Loudness: the auditory impression of the amount of energy present in sounds.

Obstruent: a consonant in which there is a substantial obstruction to the flow of air through the vocal tract.

Occlusion: an articulatory posture that results in the vocal tract being completely closed.

Phoneme: a speech sound which can be identified as one of the set of distinctive sounds of a particular language.

Phonotactics: the study of sound sequences. Most phonotactic analyses are based on syllables.

Pitch: the sensation which corresponds to the fundamental frequency of periodic sound, varying between high and low.

Plosion: short burst of noise produced by the escape of compressed air when the closure of a plosive consonant is released.

Prominence: a characteristic of a syllable which is more noticeable than others. It is often associated with: greater length, greater loudness, intensity and pitch.

Pulmonic: an airstream created by the action of the lungs

Realization: the physical event of producing a phoneme as audible sound.

Rhotic: descriptive of varieties of English pronunciation in which the /r/ phoneme is found in all phonological contexts.

Rhyme: in verse, a pair of lines that end with the same sequence of sounds.

RP (receive pronunciation): a name given to the accent used as a standard for describing British English accent.

Rhythm: in phonetics, the occurrence of units of speech at recognizably regular intervals of time.

Segment: in phonetics, the smallest unit that can be identified in continuous speech.

Stress: a property of **syllables** by which they are made more noticeable or prominent than other syllables.

Suprasegmental features: features of speech (such as **pitch**) which are usually a property of stretches of speech longer than the individual segment.

Syllable: a phonological unit consisting of a vowel and any consonants which form its beginning or end.

Syllabic consonant: a consonant which can stand alone as a syllable.

Tempo: the speed at which a speaker produces speech, often measured in **syllables** per second.

Vocal tract: the connected passages (inside the head) which form the system used to produce speech. This starts at the larynx and includes the pharynx, the mouth and nasal cavity.

Voicing: the vibration of the vocal cords which accompanies many speech sounds, particularly vowels.

Vowel: a class of speech sound in which there is the least or no obstruction to the flow of air through the vocal tract and which normally found forming the nucleus of syllables.

References /Suggested Reading List

1. Book & E-books

Abercrombie, D. (1975). *Elements of General Phonetics*. Edinburgh: Edinburgh University Press.

Carr, Ph. 2013. *English Phonetics and Phonology. An Introduction*. 2nd edition. Oxford: Wiley-Blackwell.

Celce-Murcia, M., D. M. Brinton, J. M. Goodwin and B. Griner. 2007. *Teaching Pronunciation: a course book and reference guide*. Cambridge: Cambridge University Press.

Clark, J. and C. Yallop. 1992. *An Introduction to Phonetics and Phonology*. Oxford: Blackwell Publishers.

Collins, B. and I. M. Mees. 2003. *Practical Phonetics and Phonology*. London: Routledge.
Cruttenden, A. 2014. *Gimson's Pronunciation of English*. 8th edition. London: Routledge.

Crystal, D. 2008. *A Dictionary of Linguistics and Phonetics*. 6th edition. Oxford: Blackwell Publishers.

Gimson, A. C. 1980. *An Introduction to the Pronunciation of English*. 3rd edition. London: Edward Arnold.

Gimson, A. C. and A. Cruttenden. 2008. *Gimson's Pronunciation of English*. 7th edition. London: Edward Arnold.

Roach, P. 2009. *English Phonetics and Phonology*. 4th edition. Cambridge: Cambridge University Press.

2. Articles

Alsaawi, Ali. (2019). Spoken and Written Language as Medium of Communication: A Self-reflection. *International Journal of Applied Linguistics & English Literature*, 8(2), 194-198. DOI: 10.7575/aiac.ijalel.v.8n.2p.194

Maniruzzaman, M. (2021). English Phonetics and Phonology: A Blended Learning Design Plan. *Academia Letters*, Article 1313. <https://doi.org/10.20935/AL1313>.

3. Pedagogical Documents

Aissam Ait's pedagogical document (Corrective and Articulatory phonetics), 2016, Setif University, Algeria

Mohamed Hemaïdia' pedagogical document (Phonetics), 2012; Ibn Khaldoun University of Tiaret, Algeria

4. Websites

<https://www.cambridge.org/core/books/introduction-to-english-phonetics-and-phonology/english-syllable-structure/7869189F82B207DAB0F34CCB771F1E63>

<https://www.bbc.co.uk/learningenglish/course/upper-intermediate/unit-17/session-4#:~:text=In%20any%20word%20with%20more,or%20syllables%20in%20the%20word>