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COURSE CODE: ENG 122

COURSE TITLE: ENGLISH PHONETICS AND PHONOLOGY I1

NUMBER OF UNITS: 3 Units

COURSE DURATION: Three hours per week

COURSE LECTURER: **IYOHA OSAS C.**

### **INTENDED LEARNING OUTCOMES**

At the completion of this course, students should be able to:

1. define phonetics and phonology
2. explain the relationship between phonetics and phonology;
3. identify the organs of speech involved in the production of speech sounds in English;
4. distinguish between the sound system of English and other languages;
5. explain the parameters for describing English speech sounds;

### **COURSE DETAILS:**

WEEK 1: A Revision of ENG 112

WEEK 2: English consonant sounds

WEEK 3: Parameters for the description of consonant sounds – Place of Articulation; manner of articulation; state of the glottis

WEEK 4: The description of other consonant sounds

WEEK 5: The distinction between consonant and vowel sounds

WEEK 6: Consonant clusters

WEEK 7: Transcription; broad (phonemic) transcription

WEEK 8: Narrow (phonetic) transcription

WEEK 9: Secondary articulatory features

WEEK 10: Strong/ weak forms

WEEK 11: The IPA

WEEK 12: Revision

## RESOURCES

### • Lecturer's Office Hours:

• Iyoha Osas. Monday – Friday 08:30 - 03:30pm.

• Course lecture Notes: <http://www.edouniversity.edu.ng/...pdf>

### • Books:

Gimson, A. C. 2001. *Gimson's Pronunciation of English*. London: Arnold. Sixth Edition.

Jones, D. 2006. *Cambridge English Pronouncing Dictionary*. Seventeenth Edition. Cambridge: Cambridge University Press.

Ladefoged, P. 2006. *A Course in Phonetics*. Fifth Edition. Boston: Thomson Wadsworth

Osisanwo, A. 2009. *Fundamentals of English Phonetics and Phonology*. Second Edition. Lagos: Femolus-Fetop Publishers

Roach, P. 2000. *English Phonetics and Phonology*. Second Edition. Cambridge: Cambridge University Press.

Yule, G. 1996. *The Study of Language*. Cambridge: Cambridge University press

## **CONTINUOUS ASSESSMENT, GRADING, AND EVALUATION:**

Grading in the course is made up of 30% continuous assessment and 70% final examination. The 30% components of the continuous assessment are as follows:

In-class test - 10

Mid-Semester Test - 10

Quizzes - 5

Written assignment - 5

## **PREAMBLE:**

In ENG 122, we began by defining language and linguistics and establishing the relationship between them. We also have considered what phonetics and phonology are and we equally established the relationship that exists between phonetics and phonology. Now, let's take a cursory look at this again.

Phonetics is the branch of linguistics that has to do with the scientific study of speech sounds. It studies the actual speech sounds that humans use in communicative situations.

Phonology studies how the speech sounds in a language function. It studies the features of the sound system of any language. Phonology has mostly to do with the prosodic features of any language.

In order to understand phonetics and phonology, it is important that we define and explain what language and linguistics are, as both phonetics and phonology are located within language and linguistics.

### **What is Language?**

Gimson (1980: 4-5) defines language as “a system of conventional symbols used for communication by a whole community, the pattern of conventions covers a system of significant sound units, the inflection and the arrangement of words and the association of meaning with words”. Osisanwo (2008: 1) defines it as “human vocal noise or the arbitrary graphic representation of this noise, used systematically and conventionally by members of a speech community for purposes of communication”

Language is how humans communicate using spoken and written words. Note that animals communicate too using non-verbal means of communication but human communication has to do with conventions that involve how sounds, signs and gestures are used to communicate meaning.

### **What is Linguistics?**

Linguistics is the scientific study of human language. By scientific, we mean that linguistics employs the scientific processes of observation, data collection, formulation of hypothesis, analysis of data and formulation of theory based on the structure of a language.

### **Who is a linguist?**

A linguist is someone who studies a language. He is a language specialist who is skilled in the art of scientifically studying a language. Please note that he is not someone who can speak several languages. Sometimes, he does not even speak the language that he studies. He, however, has sound knowledge of what is universal to languages. A person with the ability to speak several languages is a polyglot.

### **The relationship between language and linguistics**

- **Linguistics** is the scientific study of **language**
- **Linguistics** involves how aspects of human **language** such as **language** planning, standardisation, and **language** policies are developed.
- **Linguistics** studies the different levels of **language** such as phonetics, phonology, morphology, syntax and semantics.

## **Branches of linguistics**

The following are the branches of linguistics.

- Micro-linguistics (theoretical linguistics/grammar by some scholars): studies the basic component/aspect of language. Its levels include the following.
  - ✓ Phonetics
  - ✓ Phonology
  - ✓ Morphology
  - ✓ grammar/syntax
  - ✓ semantics
- Macro-linguistics involves the application of theoretical linguistics to the analysis of language in use.

Macro-linguistics has the following sub-fields

- Sociolinguistics
- Ethno-linguistics
- Applied linguistics
- Psycholinguistics
- Neurolinguistics
- Historical linguistics
- Descriptive linguistics
- Computational linguistics
- Comparative linguistics

## **PHONETICS AND PHONOLOGY**

### **WHAT IS PHONETICS?**

Ladefoged (1975: 1) describes phonetics as being ‘concerned with describing the speech sounds that occur in the languages of the world’. Roach (2002: 58) also observes that ‘the central concerns in phonetics are the discovery of how speech sounds are produced, how they are used in spoken language, how we can record speech sounds with written symbols and how we hear and recognise different sounds’. Comrie (2007) sees it as the study of speech sounds and their physiological production and acoustic qualities.

Phonetics is the scientific study of the sound segments of language. It is the branch of linguistics that identifies the organs of speech involved in the production of speech sounds and how these organs interact to produce speech. It also describes the speech sounds of the languages of the world.

### **Branches of Phonetics**

There are three main branches of phonetics. They include:

- Articulatory phonetics
- Acoustic phonetics
- Auditory phonetics

### **Articulatory phonetics**

- Examines the production of speech, especially how the organs of speech are involved.
- It studies how the human vocal tract is used to produce speech.
- It studies how and where speech sounds are made.

### **Acoustic phonetics**

- ❖ Sees a speech sound as possessing certain physical properties.
- ❖ It studies the sound waves produced by the human vocal apparatus (Comrie, 2007)
- ❖ It uses specialised machines and laboratory.
- ❖ These machines include spectrograph which records the physical features of sounds.
- ❖ Electro-aerometer – used in recording the movement of air to and from the cavities – buccal and nasal during speech.
- ❖ Intensity meter – used to measure intensity during speech
- ❖ Pitch meter – used in measuring speech pitch

### **Auditory Phonetics**

- Studies how speech sounds are perceived by the human ear.

- The brain and the human ear are important here

## **What is Phonology?**

*Phono* is from Greek, and it means ‘sound’ or ‘voice’ while *logy* means ‘study’. Phonology is concerned with how sounds function in a particular language. Phonology deals with how sounds are patterned and structured in a language for communication. We can thus deduce that phonetics produces the raw material that phonology uses. Phonology studies the stretch made from speech sounds.

## **Phonology types**

- Diachronic and Synchronic phonology

Diachronic phonology studies the changes that occur in the speech and sound system of a language over a period of time while synchronic phonology studies the sound system of a language in a particular period in time.

## **Aspects of phonology**

- Segmental phonology
- Suprasegmental phonology

## **Segmental phonology**

Segmental phonology studies individual sound segments and how they are combined to form words with meaning for communication

## **Suprasegmental phonology**

Suprasegmental phonology transcends individual sound segments. It refers to phonological units beyond or larger than the segment. *Non-segmental* or *prosody* are also used instead of *suprasegmental*. Prosody goes beyond the study of phonemes. It deals with speech features such as length, rhythm, stress, pitch, intonation and loudness in speech. Some scholars still classify the syllable as segmental, but the syllable is a unit that is actually larger than the individual sound segment.

## **Questions**

- Differentiate clearly between phonetics and phonology
- Discuss the branches of phonetics

- Differentiate clearly between auditory and acoustic phonetics; articulatory and acoustic; and articulatory and auditory
- Differentiate between segmental and suprasegmental phonology

### **The English consonant sounds**

Consonant sounds are sounds that are produced when there is some form of constriction at some point in the vocal tract, thereby hindering the flow of air in the oral cavity (mouth). In other words, in the production of consonant sounds, the air from the lungs is impeded at one point or another as it goes up the vocal tract. This is however not so in the production of vowel sounds. In vowel sounds, the air from the lungs is usually unimpeded; there is a free flow of air out of the mouth.

There are altogether 24 consonant sounds in English

### **Parameters for the description of consonant sounds**

The following are the parameters for the description of consonant sounds.

- State of the glottis
- Place of articulation
- Manner of articulation

### **State of the glottis**

This refers to whether or not the vocal cords vibrate in the production of a consonant sound. The glottis is the space between the vocal cords and this parameter refers to the state of the glottis in the production of consonant sounds. When the glottis is wide open, air flows freely through and there is no form of vibration leading to the production of voiceless sounds. However, when the glottis is quite close, the air from the lungs has some difficulty flowing through leading to the production of voiced sound.

**Voiceless sounds:** They are produced when the glottis is wide open, leaving enormous space for air flow. Hence, the vocal cords do not vibrate and voiceless sounds are made. Examples of voiceless sounds include /t/, /k/, /p/, /f/, /s/, etc.

**Voiced sounds:** The glottis is not as open, thus, air flow causes vibration in the vocal cords and voiced sounds are produced. Examples of voiced sounds include /b/, /d/, /g/, /z/, /v/, etc.

### **Place of articulation**

The place of articulation refers to the location of articulation in the vocal tract. It has to do with where (place) speech sounds are made. In other words, the parameter treats the organs of speech involved in the production of speech sounds. Based on this parameter, English consonants can be classified into the following.

- Bilabial sounds
- Labio-dental sounds
- Inter-dental sounds
- Alveolar sounds
- Palato-alveolar sounds
- Palatal sounds
- Velar sounds and
- Glottal sounds

### **Bilabial**

These are sounds whose production involves the lips. In other words, to produce bilabial sounds, the upper and lower lips must make contact with each other. They include /p/, /b/, /m/.

### **Labio-dental sounds**

‘Labio’ has to do with the lips while ‘dental’ has to do with the teeth. Hence, labio-dental sounds are sounds produced when the teeth come in contact with the lips. In English, labio-dental sounds are made with the upper lip making partial contact with the lower teeth. Labio-dental sounds in English are fricatives and they include /f/ and /v/.

### **Dental sounds**

These are sounds made when the tongue makes contact with the teeth. In dental sounds, the tip of the tongue is placed between the upper teeth and the lower teeth. Air then gradually and forcefully passes through this contact. Labio-dental sounds in English are fricatives. They include /ð/ and /θ/.

### **Alveolar sounds**

Alveolar sounds are sounds that are made with the tongue making contact with the alveolar ridge/ teeth ridge. In other words, when alveolar sounds are made, the tongue articulates with the alveolar ridge. Alveolar sounds include /t/, /d/, /s/, /z/, etc.

### **Palato-alveolar sounds**

The production of these sounds involves the tongue and the back of the alveolar ridge, very close to the hard palate. In making this speech sound, the tongue articulates with the region between the alveolar ridge and the hard palate. Examples include /ʒ/ and /ʃ/.

### **Palatal sounds**

In the production of palatal sounds, the tongue makes contact with the hard palate. An example of a palatal sound is /j/.

## **Velar sounds**

Velar sounds are made when the back of the tongue articulates with the velum or soft palate. The velar sounds in English are stops and they include /k/, /g/ and /ŋ/.

## **Glottal sounds**

These are sounds made at the glottis. Glottal sounds are the product of a constriction at the glottis. /h/ is an example of a glottal sound.

## **Manner of articulation**

This refers to the behaviour of the organs of speech and the extent of constriction or obstruction in the vocal tract in the production of a consonant sound. This parameter deals with how sounds are articulated or produced, especially in terms of the degree of constriction in production. The constriction can be partial or total. Manner of articulation includes stop/plosive, fricative, affricate, approximants, lateral and nasal.

## **Stops**

Stops are sounds produced when there is a total obstruction or constriction to the air coming from the lungs, followed by a sudden release of air. This total constriction is occasioned by the contact of two organs of speech (articulators). A puff of air usually accompanies stops, but this puff of air is greater in voiceless stops. When a stop occurs in the oral cavity, it is referred to as plosive, while it is called a nasal when it occurs in the nasal cavity. Examples of stops include /p/, /t/, /d/, /g/, /k/, etc.

## **Fricatives**

In the production of fricatives, two articulators come close together leaving a narrow passage for air to force its way through. The articulators do not make

complete contact as you will find in stops. Examples of fricatives include /f/, /v/, /s/, /z/, /ʒ/, /ʃ/, etc.

### **Affricates**

Affricates combine features of stops and fricatives. There is a total blockage of air followed by a gradual release of air in the production of affricates. Examples of affricates include /tʃ/ and /dʒ/.

### **Approximants**

In the production of approximants, two articulators come close together but do not quite make any form of articulation that is great enough to produce a turbulent airflow. Examples of approximants include /w/ and /j/.

### **English consonants and their description**

/b/ voiced bilabial plosive as in bat /bæt/

/p/ voiceless bilabial plosive as in pot /pɒt/

/k/ voiceless velar plosive as in keep /ki:p/

/g/ voiced velar plosive as in get /get/

/t/ voiceless alveolar plosive as in tip /tɪp/

/d/ voiced alveolar plosive as in dip /dɪp/

/m/ bilabial nasal as in mat /mæt/

/f/ voiceless labiodental fricative as in feel /fi:l/

/v/ voiced labiodental fricative as in vote /vəʊt/

/θ/ voiceless dental fricative as in with /wɪθ/

/ð/ voiced dental fricative as in those /ðəʊz/

/s/ voiceless alveolar fricative as in sip /sɪp/

/z/ voiced alveolar fricative as in zip /zip/

/l/ alveolar lateral as in lip /lip/

/r/ alveolar trill as in rib /rib/

/n/ alveolar nasal as in neat /ni:t/

/ʃ/ voiceless palato-alveolar fricative as in shop /ʃɒp/

/ʒ/ voiced palato-alveolar fricative as in vision /viʒn/

/tʃ/ voiceless palato-alveolar affricate as in chat /tʃæt/

/dʒ/ voiced palato-alveolar affricate as in judge /dʒʌdʒ/

/ŋ/ velar nasal as in wing /wiŋ/

/h/ voiceless glottal fricative as in hat /hæt/

/j/ palatal semi-vowel as in yoke /jəuk/

/w/ labiovelar semi-vowel as in win /win/

### **Description of other consonant sounds (IPA)**

Place of articulation:

- Retroflex sounds
- Uvular sounds
- Glottal sounds
- Pharyngeal sounds
- Labia velar
- Epiglottal

**Manner of Articulation:**

- Flap or tap
- Trill
- Implosives
- Ejectives

### **Approximants**

- Here, one articulator approaches the other. However the constriction is not enough to produce a turbulent airflow. /l/, /w/ and /j/ are classified as approximants. They are sometimes called semi-vowels, glides or liquids. However, some scholars tend to give them further classifications.
- Do well to read up on approximants, liquids, glides and semi-vowels

### **Fortis and Lenis**

- They are used to indicate the voiced and voiceless nature of language
- Fortis means relatively strong articulation
- Lenis means relatively weak articulation
- Fortis articulation can be termed tense
- Lenis can be termed lax
- Please read more on fortis and lenis

### **The IPA (International phonetic association/ alphabet)**

- Established in 1886 by phoneticians from France, Germany, Britain and Denmark.
- They devised a universal phonetic alphabet aimed at devising a system for transcribing the speech sounds which are applicable to all languages

## **Bibliography**

- Cruttenden, A. 2008. *Gimson's Pronunciation of English* (Eighth Edition). London. Hodder Education.
- Gimson, A. C. 2001. *Gimson's Pronunciation of English*. London: Arnold. Sixth Edition.
- Jones, D. 2006. *Cambridge English Pronouncing Dictionary*. Seventeenth Edition. Cambridge: Cambridge University Press.
- Ladefoged, P. 2006. *A Course in Phonetics*. Fifth Edition. Boston: Thomson Wadsworth
- Osisanwo, A. 2009. *Fundamentals of English Phonetics and Phonology*. Second Edition. Lagos: Femolus-Fetop Publishers.
- Roach, P. 2000. *English Phonetics and Phonology*. Second Edition. Cambridge: Cambridge University Press.
- Yule, G. 1996. *The Study of Language*. Cambridge: Cambridge University press.