

Recap

- Definition of Phonetics
- Subfields
- Sound- spelling relationship
- Phonetic alphabet

FONETIKA ENGLISKOG JEZIKA

- 2. PREDAVANJE -

Phonemic Chart

1. How useful do you think this chart is for describing the sounds of spoken English?
2. Have you ever used this chart in a classroom?
3. Should knowledge of this chart be required from the English language teachers?

ɪ	I	ʊ	u:	ɪə	eɪ	ɪ	ɔ:	ɔ:	ʊə	ɔɪ	əʊ
e	ə	ɜ:	ɔ:	ʊə	ɔɪ	əʊ					
æ	ʌ	ɑ:	ɒ	eə	aɪ	aʊ					
P	b	t	d	tʃ	dʒ	K	ŋ				
f	v	θ	ð	s	z	ʃ	ʒ				
m	n	ŋ	h	l	r	w	j				

the teacher's first aim should be to thoroughly familiarise his pupils with the sounds of the foreign language. Towards this end he should use a phonetic transcription which will be employed exclusively in the early stages of the course without reference to conventional spelling. (IPA articles 1886, quoted in Stern, 1983: 89)

4. Do you agree with this point of view?

ɪ	I	ʊ	u:	ɪə	eɪ	ɪ	ɔ:	ɔ:	ʊə	ɔɪ	əʊ
e	ə	ɜ:	ɔ:	ʊə	ɔɪ	əʊ					
æ	ʌ	ɑ:	ɒ	eə	aɪ	aʊ					
P	b	t	d	tʃ	dʒ	K	ŋ				
f	v	θ	ð	s	z	ʃ	ʒ				
m	n	ŋ	h	l	r	w	j				

Diagram illustrating the Phonemic Chart with colored ovals highlighting specific groups of phonemes:

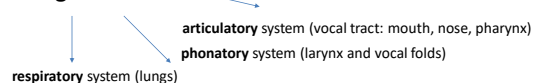
- vowels** (red oval): ɪ, I, ʊ, u:, ɪə, eɪ, ɪ, ɔ:, ɔ:, ʊə, ɔɪ, əʊ
- consonants** (blue oval): P, b, t, d, tʃ, dʒ, K, ŋ, f, v, θ, ð, s, z, ʃ, ʒ
- continuant** (green oval): r, w, j

LECTURE OUTLINE

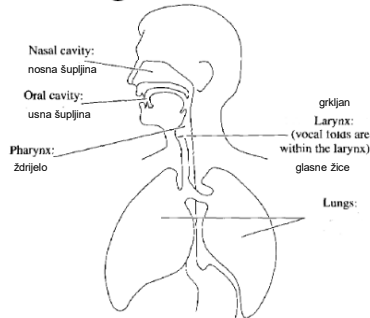
- Speech production (speech generation) – speech organs
- Speech perception (hearing)
- Methods and techniques in pronunciation teaching

Airstream mechanism

- Movement of air is required for producing speech sounds
- The air comes from the lungs, passes the windpipe (trachea) and the larynx, and leaves the mouth or the nose – these organs are **speech organs**



Speech organs



Lungs

- The lungs play a key role in the production of speech sounds by **providing air and airflow** and other paralinguistic communication (sighs and gasps)
- English: **egressive sounds** – the air stream is created by **pushing air out** through the mouth or nose (unlike ingressive sounds - clicks)

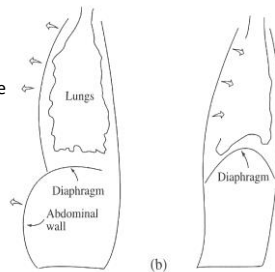
BREATHING AND AIR FLOW

Lungs have no muscles; breathing is achieved by changing the size of the chest cavity in 2 ways:

1. Downward movement of the diaphragm, to lengthen the chest cavity
2. Elevating the ribs, to increase the front-to-back thickness

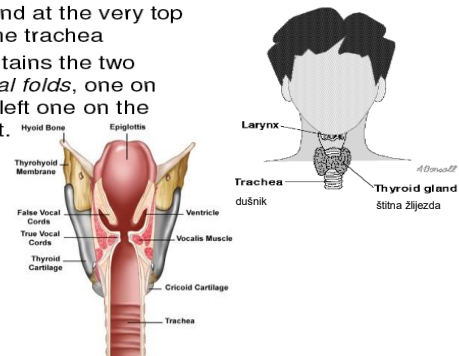
Two muscle groups are used:

1. **Intercostals** that expand and contract the rib cage
2. **Abdominal wall and diaphragm** /'daɪ.ə.fræm/, which change the abdominal cavity



Larynx

- Found at the very top of the trachea
- Contains the two **vocal folds**, one on the left one on the right.



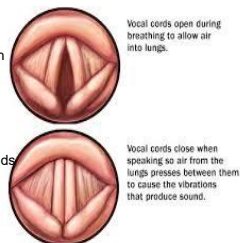
VOCAL FOLDS or VOCAL CORDS

- They refer to the **tissue in the throat** which is key in creating sounds
- They consist of **two membranes**. They are **in the larynx**, at the top of the trachea.
- **Their size affects the pitch** of voice: adult male voices are usually lower pitched because of longer & thicker cords; in children, they are much shorter than in the adults

Vocal folds vibrate rapidly in a sequence of vibratory cycles with a speed of about: 110 cycles per second or Hz (men) = lower pitch
180 to 220 cycles per second (women) = medium pitch
300 cycles per second (children) = higher pitch, higher voice:
(Source: VoiceFoundation)

Loudness: Increase in air flow "blows" vocal folds wider apart, which stay apart longer during a vibratory cycle

Pitch: Increase in frequency of vocal fold vibration increases pitch



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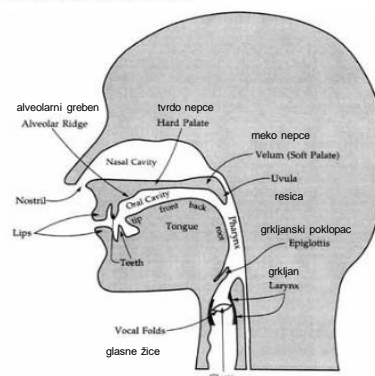
Position of vocal cords

1. Open glottis, the folds are apart – this happens in normal breathing and voiceless sounds
2. Narrow glottis, the folds are held gently close. Folds **VIBRATE**. This happens in voiced sounds (all vowels and some consonants)
3. Closed glottis, the folds are firmly closed. Airstream is stopped. This happens in glottal stop - /t/ in the American pron. of water, button. In Arabic...

Vocal tract

- Everything above the larynx. It consists of two cavities: nasal and oral (mouth + pharynx)
- Vocal tract parts which participate in making speech sounds are **articulators**

Vocal tract cont.



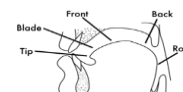
Source: Lacic, 2019

Vocal tract

- **Lips:** upper and lower
Esp. important for bilabial and labio-dental consonants, and in the production of vowels (lips can be spread, rounded or neutral)
- **Teeth:** upper and lower
Esp. important in the production dental and labio-dental consonants

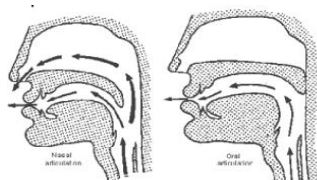
Vocal tract

- **Roof of the mouth:** alveolar ridge (esp. important in the production of alveolar consonants), hard palate (palatal c.), soft palate (velum), uvula, pharynx (glottal sounds in Arabic)
- **Tongue:** tip, blade (below the alveolar ridge), front (below the hard palate), back (below the soft palate), root (towards the pharynx)



Vocal tract

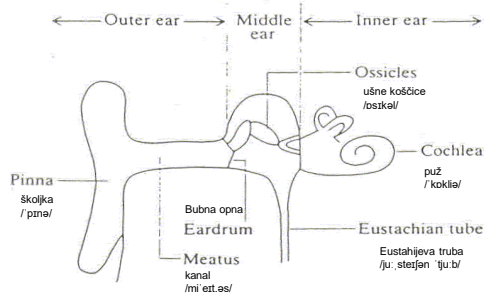
- Nasal cavity: no moveable parts; sounds articulated with the help of the velum



Hearing and perception

- Hearing – sounds are received and converted into a nerve impulse
- Perception – post-processing in the brain – the sounds heard are interpreted and given meaning

Human ear



Methods and techniques of teaching pronunciation*

Two general approaches to the teaching of pronunciation:

1. An intuitive-imitative approach (before the late 19th century)

Occasionally supplemented by the teacher's or textbooks writer's impressionistic (and often phonetically inaccurate) observations about sounds based on orthography (Kelly, 1969)

An intuitive-imitative approach

- (1) depends on **the learner's ability to listen to and imitate** the rhythms and sounds of the target language without the intervention of any explicit information;
- (2) presupposes **the availability, validity, and reliability of good models** to listen to.

* Sources: Celce-Murcia, et. al., 1996 & <http://web.ntpu.edu.tw/~language/workshop/method.pdf>

2. An analytic-linguistic approach

- (1) utilizes information and tools such as a phonetic alphabet, articulatory descriptions, charts of the vocal apparatus, contrastive information, and other aids to supplement listening, imitation, and production.
- (2) explicitly informs the learner of and focuses attention on the sounds and rhythms of the target language.
- (3) was developed to complement rather than to replace the **intuitive-imitative approach**, which was typically retained as the practice phase used in tandem with the phonetic information.

International Phonetic Association founded in 1886 by phoneticians such as Henry Sweet, Wilhelm Viëtor, and Paul Passy. International Phonetic Alphabet (IPA) was developed to describe and analyze the sound systems of languages.

A phonetic alphabet made it possible to accurately represent the sounds of any language because, for the first time, there was a consistent one-to-one relationship between a written symbol and the sound it represented. The phoneticians, also teachers specifically advocated the following notions and practices:

- (1) The **spoken form** of a language is primary and should **be taught first**.
- (2) The **findings of phonetics** should be applied to language teaching.
- (3) **Teachers must have solid training in phonetics.**
- (4) **Learners should be given phonetic training to establish good speech habits.**

Stage 1 – 40s and 50s: Audiolingualism and the Oral Approach

Audiolingualism in the United States and of the **Oral Approach** in Britain during (1940s & 1950s).

- (1) **pronunciation is very important** and is taught explicitly from the start (as in the Direct Method classroom, the teacher / recording models a sound, a word, or an utterance and the students imitate or repeat).
- (2) the teacher also makes use of information from phonetics, such as a visual transcription system (modified IPA or some other system) or charts that demonstrate the articulation of sounds.
- (3) the teacher often uses a technique derived from the notion of contrast in structural linguistics: **the minimal pair drill**—drills that use words that differ by a single sound in the same position.
e.g., sheep – ship green – grin Did you at **least** get the **list**?

Types of minimal-pair training

(a) **Word drills:**

sheep – ship green – grin

(b) **Sentence drills:**

(b-1) Syntagmatic drills (contrast within a sentence)

Don't **sit** in that **seat**.

Did you at **least** get the **list**?

(b-2) Paradigmatic drills (contrast across two sentences)

Don't **slip** on the floor. (It's wet.)

Don't **sleep** on the floor. (It's cold.)

Stage 2 – 60s: Cognitive Approach

The Cognitive Approach, influenced by transformational-generative grammar (Chomsky, 1959, 1965) and cognitive psychology (Neisser, 1967), viewed **language as rule-governed behavior** rather than **habit formation**.

It deemphasized pronunciation in favor of grammar and vocabulary because

- (1) native-like pronunciation was an unrealistic objective and could not be achieved (Scovel, 1969);
- (2) time would be better spent on teaching more learnable items, such as grammatical structures and words.

Stage 3 – 70s: the Silent Way

Like Audiolingualism, the Silent Way (Gattegno, 1972, 1976) can be characterized by the attention paid to accuracy of production of both the sounds and structures of the target language from the very initial stage of instruction. Not only are individual sounds stressed from the very first day of a Silent Way class, but learners' attention is focused on how words combine in phrases - on how blending, stress, and intonation all shape the production of an utterance. Proponents claim that this enables Silent Way learners to sharpen their own inner criteria for accurate production.

The difference between Audiolingualism and the Silent Way is that in the Silent Way learner attention is **focused on the sound system** without having to learn a phonetic alphabet or a body of explicit linguistic information.

Stage 4 – late 70s: Community Language Learning

Rooted in the humanistic client-centered learning exemplified by Carl Rogers (1951), Community Language Learning (CLL) is a method developed by Charles A. Curran (1976) for teaching second and foreign languages.

Students **sit around a table with a tape recorder**—a key tool of the method.

Students' utterances are recorded on a tape recorder and later played back. This is repeated until a satisfactory level is achieved.

The **audiotape recorder** not only captures what is said in the student-generated utterances but also provides a way for students to distance themselves from what was said, so they can focus on how it was said and compare their pronunciation with that of the counselor.

Stage 5 – 80s: Communicative Approach

The Communicative Approach, which took hold in the 1980s and is currently dominant in language teaching, holds that since the primary purpose of language is communication, using language to communicate should be central in all classroom language instruction. **This focus on language as communication brings renewed urgency to the teaching of pronunciation, since both empirical and anecdotal evidence indicates that there is a threshold level of pronunciation for nonnative speakers of English; if they fall below this threshold level, they will have oral communication problems no matter how excellent and extensive their control of English grammar and vocabulary might be.** (For research supporting this claim, see Hinofotis & Bailey, 1980).

Morley (1987: 2) suggests that there are currently at least four groups of English language learners whose oral communication needs mandate a high level of intelligibility and therefore **require special assistance with pronunciation**:

1. foreign teaching assistants—and sometimes foreign faculty - in colleges and universities in English-speaking countries
2. foreign-born technical, business, and professional employees in business and industry in English-speaking countries
3. international business people and diplomats who need to use English as their working lingua franca
4. refugees (adult and adolescent) in resettlement and vocational training programs wishing to relocate in English-speaking countries

To Morley's four categories we should add at least two more groups:

5. teachers of English as a foreign language who are not native speakers of English and who expect to serve as the major model and source of input in English for their students
6. people in non-English-speaking countries working as tour guides, waiters, hotel personnel, customs agents, and the like, who use English for dealing with visitors who do not speak their language

The goal of teaching pronunciation to such learners is not to make them sound like native speakers of English. With the exception of a few highly gifted and motivated individuals, such a goal is unrealistic. **A more modest and realistic goal is to enable learners to surpass the threshold level so that their pronunciation will not detract from their ability to communicate.**

Having established that intelligible pronunciation is one of the necessary components of oral communication, the next issue is methodological: How can teachers improve the pronunciation of unintelligible speakers of English so that they become intelligible? This is a problem for Communicative Language Teaching, since proponents of this approach have not dealt adequately with the role of pronunciation in language teaching, nor have they developed an agreed-upon set of strategies for teaching pronunciation communicatively.

COMMUNICATIVE APPROACH – METHODS

to teach pronunciation. The following is a fairly comprehensive list:

1. **Listen and imitate:** A technique used in the Direct Method in which students listen to a teacher-provided model and repeat or imitate it. This technique has been enhanced by the use of tape recorders, language labs, and video recorders.
2. **Phonetic training:** Use of articulatory descriptions, articulatory diagrams, and a phonetic alphabet (a technique from the Reform Movement, which may involve doing phonetic transcription as well as reading phonetically transcribed text).
3. **Minimal pair drills:** A technique introduced during the Audiolingual era to help students distinguish between similar and problematic sounds in the target language through listening discrimination and spoken practice. Minimal pair drills typically begin with word-level drills and then move on to sentence-level drills (both paradigmatic and syntagmatic).

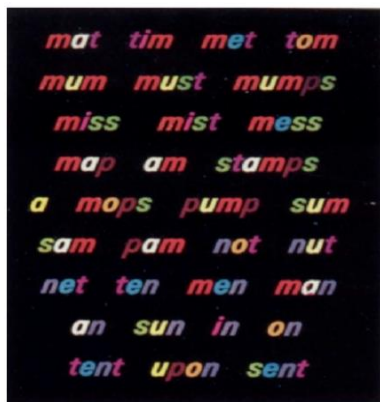
4. **Contextualized minimal pairs:** Bowen's (1972, 1975b) attempt to make minimal pair drills responsive to Cognitive Approach criticisms of meaninglessness and lack of context. In the technique, the teacher establishes the setting (e.g., a blacksmith shoeing a horse) and presents key vocabulary; students are then trained to respond to a sentence stem with the appropriate meaningful response (a or b)

Sentence stem
The blacksmith (a. hits; b. heats) the horseshoe.

Cued student response

a. with the hammer; b. in the fire.

5. **Visual aids:** Enhancement of the teacher's description of how sounds are produced by audiovisual aids such as sound-color charts, Fidel wall charts, rods, pictures, mirrors, props, realia, etc. These devices are also used to cue production of the target sounds.



Fidel's
wall
chart

© Caleb Gattegno, 1978 Words in Color Educational Solutions, Inc. USA

6. **Tongue twisters:** A technique from speech correction strategies for native speakers (e.g., "She sells seashells by the seashore.")
7. **Developmental approximation drills:** A technique suggested by first-language acquisition studies in which second language speakers are taught to retrace the steps that many English-speaking children follow as they acquire certain sounds in their first language. Thus just as children learning English often acquire /w/ before /r/ or /y/ before /l/, adults who have difficulty producing /l/ or /r/ can be encouraged to begin by pronouncing words with initial /w/ or /y/, and then shift to /r/ or /l/, respectively:

/w/ -->	/r/	/y/ -->	/l/
wed	red	yet	let
wag	rag	yes	less
witch	rich	you	Lou
wipe	ripe	young	lung

Tongue twisters, examples

Peter Piper picked a peck of pickled peppers.
A peck of pickled peppers Peter Piper picked.
If Peter Piper picked a peck of pickled peppers,
Where's the peck of pickled peppers Peter Piper picked?

I saw Susie sitting in a shoe shine shop.
Where she sits she shines, and where she shines she sits.

Denise sees the fleeces,
Denise sees the fleas.
At least Denise could sneeze
and feed and freeze the fleas.

Luke Luck likes lakes.
Luke's duck likes lakes.
Luke Luck licks lakes.
Luke's duck licks lakes.
Duck takes licks in lakes Luke Luck likes.
Luke Luck takes licks in lakes duck likes.

8. **Practice of vowel shifts** and stress shifts related by affixation: A technique based on rules of generative phonology (Chomsky & Halle, 1968) used with **intermediate or advanced learners**. The teacher points out the rule-based nature of vowel and stress shifts in etymologically related words to raise awareness; sentences and short texts that contain both members of a pair may be provided as oral practice material.

Vowel shift: mime (long /i:/) mimic (short /ɪ/)

Sentence context: Street mimes often mimic the gestures of passersby.

Stress shift: PHOtograph phoTOGraphy

Sentence context: I can tell from these **photographs** that you are very good at **photography**.

9. **Reading aloud/recitation:** Passages or scripts for learners to practice and then read aloud, focusing on stress, timing, and intonation. This technique may or may not involve memorization of the text, and it usually occurs with **genres that are intended to be spoken**, such as speeches, poems, plays, and dialogues.

10. **Recordings of learners' production:** Audio- and videotapes of rehearsed and spontaneous speeches, free conversations, and role plays. Subsequent playback offers opportunities for feedback from teachers and peers as well as for teacher, peer, and self-evaluation.

Study questions

1. What are continuants?
2. What is the difference between vowels and consonants?
3. How can speech organs be grouped?
4. Explain the phrase *egressive pulmonic airstream*.
5. Explain the movement of lungs.
6. Where are the vocal cords (=folds)?
7. What is *glottis*?
8. What are the three positions that glottis can take?
9. What is the difference between the voiced and the voiceless speech sounds?
10. Are vowels voiced or voiceless?
11. What is the vocal tract made of?
12. What are *articulators*?
13. What is the role of lips in the production of some speech sounds?
14. Name the parts of the roof of the mouth.
15. What areas are found in the tongue?
16. How does nasal cavity participate in the production of speech?
17. Name the speech organs.
18. What is the difference between hearing and perception?
19. What are the parts of the ear?

Study questions cont.

20. What are the two main approaches to the teaching of pronunciation?
21. What practices did the IPA phoneticians advocate regarding the teaching of pronunciation?
22. Explain the *minimal pair drill*. Give examples.
23. What is the attitude to pronunciation in the cognitive approach?
24. How is pronunciation taught within the Community Language Learning approach?
25. What is the attitude of the Communicative Approach to the teaching of pronunciation?
26. What professions require good foreign language pronunciation skills?
27. What is the goal of teaching pronunciation according to the Communicative Approach? What level of pronunciation is aimed at?
28. Name the main methods of teaching pronunciation.