LITHUANIAN UNIVERSITY OF EDUCATIONAL SCIENCES
FACULTY OF EDUCATION IN HUMANITIES
DEPARTMENT OF ENGLISH PHILOLOGY AND DIDACTICS

GIEDRĖ BALČYTYTĖ-KURTINIENĖ

PRODUCTION, RECOGNITION, DESCRIPTION AND TRANSCRIPTION OF ENGLISH SOUNDS

TEACHING AID

Lietuvos edukologijos universiteto leidykla

VILNIUS, 2017

Metodinė priemonė apsvarstyta Lietuvos edukologijos universiteto Filologijos fakulteto Anglų kalbos didaktikos katedros posėdyje 2017 m. sausio 12 d. (protokolo Nr. 4), Lietuvos edukologijos universiteto Filologijos fakulteto tarybos posėdyje 2017 m. sausio 16 d. (protokolo Nr. 5) ir rekomenduota išleisti.

Recenzavo:

dr. Gerda Mazlaveckienė (Lietuvos edukologijos universitetas)
Edita Katinaitė-Kalčiūnienė (Lietuvos edukologijos universitetas)

ISBN 978-609-471-090-2

Leidinio bibliografinė informacija pateikiama Lietuvos nacionalinės Martyno Mažvydo bibliotekos Nacionalinės bibliografijos duomenų banke (NBDB).

CONTENTS

PREFACE

This concise practical aid in the production, recognition, description and transcription of English sounds introduces the readers with fundamental segmental aspects of English Phonetics syllabus, provides key theoretical concepts in the field, some illustrative examples as well as a series of graded exercises that equip the readers with basic skills necessary for the production, recognition, description and transcription of English speech sounds. It is meant for the 1st year university students, is arranged in four broad topics and serves as an introductory course before further segmental and suprasegmental analysis of speech.

The aim of this aid is to present the framework of the main concepts in segmental phonetics of English and the guidelines for the development of the aforementioned skills. The Introduction is necessary to define the pronunciation objectives in the process of EFL, to discuss the debatable proposition of the intelligible pronunciation and Lingua Franca Pronunciation Core and thus argue for the nativeness principle. Further on, a review of English dialects and accents is presented in brief, proceeding on to the concept of Received Pronunciation, which the aid is based on. Part 1 focuses on the essential anatomy and physiology phases of speech sound **production**. Part 2 defines the concepts of phoneme and allophone and presents the English set of IPA phonemes as well as their symbols for the **recognition,** discrimination, association and relation of the sound to the symbol. Part 3 leads the reader through the key characteristics and classification of phonemes according to their acoustic and articulatory properties, necessary for the **description** of sounds. Part 4 is concerned with the **transcription** of monosyllabic and polysyllabic words, whereas such notions as stress, levels of stress, strong and weak forms come into play.

The above mentioned introductory syllabus represents a brief summary of the extensive treatises in general phonetics and phonology by Clark and Yallop (1992), Crystal (2008), Roach (2009), Collins and Mees (2013), Cruttenden (2014) and other linguists.

Since the aid is intended as a practical guide, each part is followed by a series of exercises. A few illustrative figures and tables as well as special orthographic notations are used to make the text reader-friendly. Broad transcription entries are inserted between slashes, e.g. /steɪ/, while in rare cases square brackets are used for the narrow allophonic transcription, e.g. [tʰi:m]. Spelling entries are given in italics, e.g. *make*.

INTRODUCTION

Pronunciation Aims in EFL

Pronunciation is an indispensable part of mastering English as a foreign language, which leads to effective communication and successful linguistic performance. In simple words, pronunciation is a set of habits of producing sounds in order to make meaning. A competent user of English would generally be expected to master the elaborate English vowel system, including the processes of length alternation and weakening; the consonant system, that includes some special English sounds like dental fricatives /θ/ and /ð/; the placement of word stress and the levels of stress as well as the complex rhythmic and intonational system.

The precipitate growth of English as a global language, however, has recently brought discussions about whether it is necessary to acquire an accurate native-like pronunciation or it is enough to use a comfortable oversimplified internationally understandable English speech. Due to this reason, lately, there have been extensive studies discouraging the acquisition of native-like English accents and advocating rather undefined or abstract goals for pronunciation instruction, such as intelligibility and comprehensibility (Jenkins 2000; Munro and Derwing 2009; Reed and Levis 2015).

Lingua Franca Pronunciation Core

Intelligibility may be broadly defined as "the degree of a listener's actual comprehension of an utterance" (Munro and Derwing 2009: 478), while comprehensibility is "the listener's perception of how easy or difficult it is to understand a given speech sample" (ibid.). Teaching and learning pronunciation for intelligibility and comprehensibility implies the principle of differential attention: some pronunciation topics should be emphasized while others should not. Since the advocators of intelligible pronunciation assume that native-like pronunciation is not an important aim, the pedagogical priorities in pronunciation are reduced to features necessary to adopt international intelligibility only. Jenkins (2000) proposed the Lingua Franca Core (LFC) for pronunciation, i.e. an instructional paradigm where essential and non-essential target items in pronunciation are presented. LFC is based on standard British and American accents and identifies four key areas in which it is fundamental to elicit errors: main consonants, some consonant clusters,

main vowels and nuclear stress. Definitely, the mastery of this elementary level of pronunciation ensures mutual international intelligibility, however it neglects the attention towards the linguistic form as well as it implies the obscurity of teaching/learning targets.

Since this aid is compiled for students of English philology, the principle of nativeness over to intelligibility is employed, i.e. the attention to accurate linguistic form plays the key role, maintaining the aim to study English phonetics as a branch of linguistics investigating sounds.

The Object of Phonetics

Phonetics analyses how each individual sound is produced, transmitted and perceived, i.e. it investigates articulatory, acoustic, and perceptual/auditory properties of sounds and thus is traditionally branched into three following areas:

- **articulatory phonetics,**
- **acoustic phonetics,**
- **auditory phonetics.**

Articulatory phonetics approaches the speech from the perspective of anatomy and physiology. It is "the branch of phonetics, which studies the way in which speech sounds are made ('articulated') by the vocal organs" (Crystal 2008: 36). It does not only describe how individual sounds are generated, but also deals with the articulatory features and classification of sounds.

Acoustic phonetics is "the branch of phonetics, which studies the physical properties of speech sounds, as transmitted between mouth and ear, according to the principles of acoustics" (Crystal 2008: 7). As the vocal organs move in order to generate a sound, an acoustic signal is created resulting in the disturbance to the air in the form of sound waves. Thus, acoustic phonetics also investigates the various attributes of sound waves, such as duration, frequency, intensity, quality and amplitude. Largely, various instrumental techniques, e.g. spectrographs, are used to measure the attributes of sound waves.

Auditory phonetics is closely connected with psycholinguistics as it is concerned with how people perceive speech sounds. It is "the branch of phonetics, which studies the perceptual response to speech sounds, as mediated by ear, auditory nerve and brain" (Crystal 2008: 44). The process involves the turn of the sound waves into nerve impulses in order to carry the message to the listener's brain.

Moreover, phonetics does not only define the properties of sounds from different perspectives, but it also "provides methods for their description, classification, and transcription" (Crystal 2008: 363). The ability **to produce, recognize, describe** and **transcribe** English sounds is necessary for the development of accurate pronunciation skills and the process of fine-tuning one's auditory skills.

Finally, there are two major components in the study of speech: the study of segments or individual sounds (**segmental phonetics)**, and the study of larger units of connected speech: syllables, stress, rhythm and intonation **(suprasegmental phonetics).** This aid mainly focuses on the study of segments.

Variation in English

There are many ways of speaking and each of them may be called a linguistic variety. In a more precise manner, a variety may be defined as "a set of linguistic items with similar social distribution" (Hudson 1996: 21). Linguistic variation generally refers to regional, social, or contextual differences in the ways that a particular language is used.

The terms **dialect** and **accent** describe varieties of a particular language, however an important distinction needs to be drawn between the two notions. **Dialect** is a "regionally or socially distinctive variety of language, identified by a particular set of words and grammatical structures" (Crystal 2008: 142). **Accent** refers just to variations in pronunciation. In a way an accent can be considered to be the 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). Another important linguistic variety is an **idiolect**, which "refers to the linguistic system of an individual speaker – one's personal dialect" (Crystal 2008: 235). It can be characterized as a distinctive and unique use of language. It develops through time, manifests itself in spoken and written usage and is characterized as a unique combination of grammatical patterns, vocabulary, pronunciation and content to a specific person.

The term dialect used in the broad sense often implies a **national variety**, i.e. the language variety identified with a particular nation. As far as English is concerned, main national varieties are British, American, Canadian, Australian, Indian, South African, Singaporean and other varieties of English in the countries where English is spoken as the 1st official language. The most significant and widely (especially internationally) used national varieties are

British English (BrE) and American English (AmE). All national varieties comprise standard and non-standard dialects and accents. **Standard** refers to a variety "that has undergone standardization, which means that it has been subjected to a process through which it has been selected, codified and stabilized, in a way that other varieties have not" (Trudgill 2013: 1), e.g. Standard English (SE) is the standard variety of British English, General American (GenAm) is the standard of American English, Standard Australian, etc. This is actually an idealized variety and for most people it exists as the version that is accepted as the official language of their community or country, thus is generally used by the government and communication media, taught at schools and universities and is the main or the only written form. It is more fixed than other varieties, thus allows less variation in pronunciation, spelling/writing and grammar. In contrast, there are **non-standard** forms used within the nation geographically and socially.

The main subject of this aid is to analyse the accent of SE, which is most often referred to as **Received Pronunciation (RP)**.

Received Pronunciation

RP ('received' meaning as 'socially acceptable') as the standard British English pronunciation is identified with a certain social group rather than a geographical region. Traditionally it serves as a prestigious variety spoken by the educated, typically the middle and upper classes of the community. Various expressions describing RP, such as **The Queen's English, Public School Accent, Oxford English, Cambridge English, BBC English, the accent of the Court**, etc., reflect significant historical and social aspects of it. At present, it is often referred to as **Modern RP (MRP)** or **Modern Non-regional Pronunciation (NRP)**. Although the importance of its status has been reduced in recent years (it is spoken only by a small percentage of the population), RP (or its modern varieties) is still the accent many speakers admire and use in formal contexts and associate with certain social values. Moreover, it serves as an EFL pronunciation teaching and learning model. Finally RP is also a concept in phonetics, since phonemic transcriptions in dictionaries are based on this particular accent.

1. PRODUCTION

The speech communication process is a complex series of events chained between the speaker's brain to the listener's brain, i.e. the speaker's thoughts are converted into linguistic representations, articulated and produced as acoustic signals that are perceived by the listener's brain through the process of audition and converted into meaningful linguistic units. Thus the very initiation of speech sounds takes place in the brain at physiological level.

Speech Chain

Further, the physical formation of acoustic signals begins. Clark and Yallop (1992) present the speech mechanism used for the formation of acoustic signals in a four-step chain comprising the following stages: respiration, phonation, oro-nasal process and articulation (see *Figure 1*).

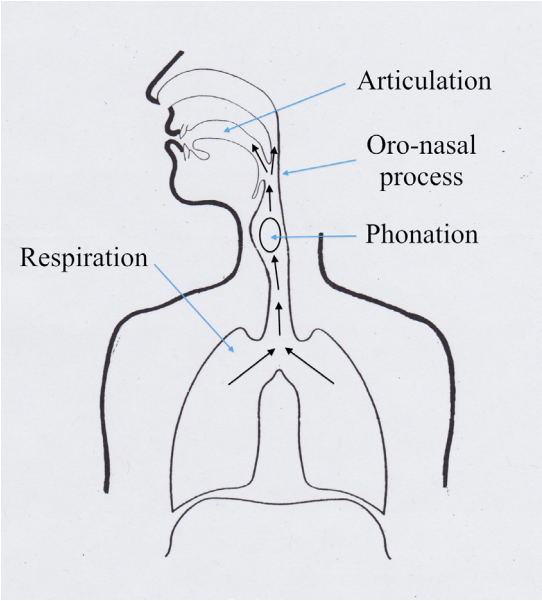

Figure 1. Stages in speech mechanism

Respiration

Acoustic signals (sounds) start as the lungs generate the airflow that travels through trachea, larynx and the vocal tract. This kind of airflow is called **pulmonic**, since it is generated by the lungs (the Latin word for the lungs is 'pulmo') and **egressive**, as the air moves forward during the respiration process. This is the first step in speech chain and it is called **respiration**.

Phonation

Next, the airflow travels through the vocal tract and reaches the **larynx** made up of two cartilages: cricoid and thyroid. The cartilages form a tube through which the air must flow on its way. Contained within the cartilages there are the two **vocal folds**, i.e. two thick flaps of muscle. For breathing, the vocal folds are open and held wide apart so that the air can pass out of the lungs unimpeded. However, as soon as the interaction between the egressive pulmonic airstream and the vocal folds begins, the sound source, termed **voice** in speech, is generated. In other words, **phonation cycle** proceeds. Clark and Yallop (1992: 37) describe the phonation cycle in the following stages:

1. the vocal folds are drawn together fairly tightly;
2. the expiratory airflow builds up the pressure and forces the vocal folds apart;
3. as the airflow escapes through the glottis, the pressure is reduced, and the vocal folds close again.

The constant opening and closing of the vocal folds causes vibration. Vibration, consequently, creates **the process of voicing**, thus all the sounds produced by the vibration of vocal folds are called **voiced.** The absence of phonation creates **glottis**. It is an opening between the vocal folds through which the airflow passes unimpeded and generates **voiceless** sounds.

Clark and Yallop (1992: 38) distinguish three auditory dimensions or parameters of phonation:

1. loudness;
2. pitch;
3. timbre.

Loudness is related to the pressure between the vocal folds: the stronger the pressure, the louder the signal. **Pitch** correlates to the frequency of vibration of vocal folds: the higher the rate of vocal fold vibration, the higher the pitch. **Timbre** is the quality of a sound and is determined by the mode of the vibration.

Oro-nasal Process

During the **oro-nasal process**, which is the third phase of sound production, the airflow travels to the pharynx. **Pharynx** is the vertical part of the tract extending up from the larynx to the velum, or the soft palate. It is the latter alongside with the uvula (the ending of the velum) that directs the upward airflow either to **oral** or to **nasal cavities**. If the velum is raised, the nasal cavity is blocked and the air flows out through the mouth (the oral cavity). If the velum is lowered, the air flows through the nasal cavity and out through the nostrils. Consequently, the sounds fall into two classes: **oral** and **nasal**.

Articulation

Finally the audible sound is processed in the stage of **articulation** to become a particular linguistic sound. **Active and passive organs of speech** (articulators) are involved in this process and the mouth becomes the most important part of the vocal tract because it is here that the most drastic modifications of its shape are achieved and the majority of the articulatory contacts are made.

The Tongue and Other Organs of Speech

The tongue contributes most to the production of a particular sound. It is the most active articulator and is "capable of assuming a great many varieties of positions of articulation for both vowels and consonants" (Gimson and Cruttenden 2008: 14). Certain parts of the tongue can move relatively independently of each other and it is best to regard each part as a separate active articulator. For the articulatory descriptions of sounds the tongue may roughly subdivided into 5 areas: the **tip,** the **blade,** the **front,** the **back,** and the **root** as indicated in *Figure 2*.

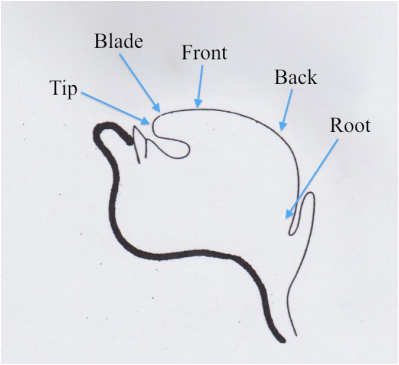

Figure 2. The subdivisions of the tongue

As described in *Figure 3* below, the other **active** organs of speech are: the lips (upper and lower), the soft palate (velum) with the uvula, the lower jaw and the row of the lower teeth.

Passive articulators are immobile in sound production to form the place of an articulatory obstruction. They are: the row of the upper teeth, the bony ridge called the alveolar ridge and the hard palate (see *Figure 3*).

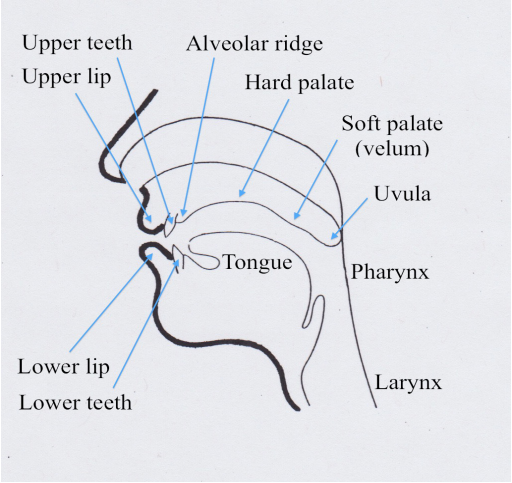

Figure 3. Organs of speech

The upper part of the mouth is often called **the roof of the mouth** where the major contacts for the production of consonant sounds are made.

Sounds that have the same active and passive articulators may be termed as **homorganic**.

EXERCISES:

1. Slightly press two fingers against your throat and try to feel the vibration of the vocal folds, decide which of the following sounds are voiced and which are voiceless:			
/g/		**/z/**	
/k/		**/d/**	
/s/		**/h/**	
/r/		**/f/**	

2. Decide whether the final sound in the following words is voiced or voiceless:			
Calls		*Thief*	
Fades		*Throws*	
Oranges		*Slope*	
Smooth		*Clash*	
Wave		*Moves*	
Length		*Quotes*	
Wrong		*Judged*	

3. Produce a long /n/. Then pinch your nostrils tightly and block the escape of air. Write down what happens:

4. Articulate the following sounds and decide the active and passive articulators:	
/v/	
/m/	
/w/	
/k/	
/z/	
/n/	

5. What part in the roof of the mouth the tongue is in contact with for the following sounds:	
/k/	
/l/	
/j/	
/z/	
/g/	

6. What is the active part of the tongue (the tip, the blade, the front, the back or the root) for the following sounds:	
/h/	
/l/	
/ʒ/	
/z/	
/g/	

7. In the sets of homorganic sounds find the one which falls out:	
/t/ /w/ /d/	
/g/ /k/ /t/	
/f/ /v/ /s/	
/m/ /z/ /n/	
/b/ /d/ /p/	

8. Draw the figure with all the active and passive organs of speech. Indicate the larynx and the pharynx as well as oral and nasal cavities.

2. RECOGNITION

Phoneme, Allophone and Minimal Pair

A distinctive sound is often referred to as a **phoneme**. It includes all the phonetic specifications of a sound and is an abstract unit. It is the minimal unit in the sound system of a language (Crystal 2008: 361) and can differentiate one word from another, i.e. make lexical distinctions as well as it has a communicative value. The particular means to determine phonemes or check their existence is to arrange them into sets of minimal pairs. A **minimal pair** is a set of words consisting of all the same sounds except for a single one, e.g. /mi:n/ and /ki:n/, where phoneme /m/ replaced by phoneme /k/ brings about the change in semantic meaning. This opposition shows the existence of two distinct phonemes.

Allophones are non-distinctive variants or **realisations** of a phoneme as they do not change the semantic meaning of an utterance, e.g. /ki:n/ pronounced with any allophone of the phoneme /k/ (aspirated or non-aspirated, etc.) maintains its meaning. Allophones usually depend on different **distribution,** i.e. "different contexts and positions in which particular sounds can occur" (Roach 2009: 11). Allophonic variation is very often the matter of a dialect.

The English Set of IPA Phonemes

The commonest tool for phonetic transcription is the alphabet of the International Phonetic Association. A little confusingly, both the **International Phonetic Association** and the **International Phonetic Alphabet** are commonly known under the acronym of **IPA**. The International Phonetic Alphabet devised by the association provides separate symbols for all the sounds used in human spoken languages. The alphabet is based on Latin letters, other shapes and **diacritics** (dots, hooks, etc.) that indicate additional qualities to the usual value of phonetic symbols, e.g. [n̩] (meaning /n/ is syllabic). Regularly, slight modifications of the alphabet are made on the basis of practical experience and scientific advice by the association. Due to this reason, dictionaries and phonetics textbooks from different years may contain minor differences as far as the phonetic symbols are concerned.

The English set of IPA phonemes comprises 44 sounds, which are further classed as vowels (monophthongs and diphthongs), consonants and sonorants.

In general terms, **vowels** are "voiced sounds in which the mouth is relatively open, allowing air to flow out freely" (Ashby 2005: 25). Out of 20 English vowels sounds there are 12 monophthongs and 8 diphthongs. The monophthongs can also be called **pure vowels**, since they remain constant during their articulation and do not glide. Also, they have duration differences: some of the pure vowels are relatively short and some are relatively long. In this sense the pairing of monophthongs is possible for practical learning purposes, though phonetically the pairs in length are invalid since the phonemes in the pairs have slightly different quality. The list of **monophthongs** and 5 relative pairs are given below:

/ɪ/	/ʊ/	/ʌ/	/ɒ/	/ə/	/e/	/æ/
/iː/	/uː/	/ɑː/	/ɔː/	/ɜː/		

Diphthongs or gliding vowels share the features of two vowel sounds. The first vowel sound functions as the **nucleus**, i.e. the strong and accentuated part of the diphthong, while the second part of the diphthong is a mere **glide**. The list of 8 diphthongs is given below:

/eɪ/	/aɪ/	/ɔɪ/	/ɪə/	/eə/	/ʊə/	/əʊ/	/aʊ/

Consonants are sounds "made by a closure or narrowing in the vocal tract so that the airflow is either completely blocked, or so restricted that audible friction is produced" (Crystal 2008: 103). The block or restriction of the air is caused by obstructions, thus consonants are very often referred to as **obstruents**. The English phonemic alphabet holds 17 consonants as presented below in voicing pairs:

/p/	/t/	/k/	/θ/	/f/	/s/	/ʃ/	/tʃ/	
/b/	/d/	/g/	/ð/	/v/	/z/	/ʒ/	/dʒ/	/h/

Sonorants are "those produced with a relatively free air-flow, and a vocal fold position such that spontaneous voicing is possible" (Crystal 2008: 442). They are often referred to as intermediate sounds between vowels and consonants. 3 sonorants are produced through the nasal cavity, the other 4 are oral sounds. In English there are 7 sonorants:

/m/	/n/	/ŋ/	/l/	/r/	/j/	/w/

Though the English phonetic alphabet comprises even 44 phonemes and the letter system of English holds just 26 letters, the actual number of sounds realized in words is usually smaller than that of letters representing the words, e.g. *enough* /ɪˈnʌf/ (6 letters and 4 sounds), *thumb* /θʌm/ (5 letters and 3 sounds). Sometimes the number of letters and sounds is the same, consider *flat* /flæt/ or *help* /help/; infrequent though are the cases of bigger number of sounds than letters, as in *six* /sɪks/ or *next* /nekst/.

A note must be made on **homophones**, i.e. words that are pronounced identically, but have different meaning and most often different spelling, e.g. *which* and *witch* are both pronounced as /wɪtʃ/.

EXERCISES:

1. What is the initial sound of the following words: a vowel, a consonant or a sonorant?			
Yacht		*Euphoric*	
Heir		*Church*	
Eye		*Wrong*	
Onion		*Habit*	
Hour		*Europe*	
Wave		*Once*	
Island		*Who*	
Hour		*You*	

2. Write correct phonemic symbols for the vowels in the following words:			
Wolf		*Bird*	
Camp		*Approach*	
Rough		*Pick*	
Boss		*Walk*	
Net		*Glue*	
Read		*Turn*	
Wet		*Van*	

3. Write correct phonemic symbols for the diphthongs in the following words:			
Crowd		*Join*	
Prime		*Rate*	
Year		*Claire*	
Glare		*Old*	
Mode		*Loud*	
Sure		*Drain*	

4. Write correct phonemic symbols for the first consonants or sonorants in the following words:			
Thirsty		*Fuel*	
Weep		*Zero*	
Drive		*Massage*	
Glow		*Jake*	
Shrimps		*Vampire*	
Though		*Noodles*	
Hire		*Pilot*	
Sorrow		*Whisper*	

5. Choose a diphthong between /ɪə/ and /eə/ (you do not need to transcribe the whole word). First do it on your own, then use a different colour and correct the transcription using a dictionary.			
Affair		*Swear*	
Bare		*Tear*	
Anywhere		*Their*	
Idea		*Yeah*	
Jeer		*Appear*	
Mere		*Share*	
Mountaineer		*Atmosphere*	
Near		*Beer*	
Beware		*Cashmere*	
Care		*There*	
Clare		*Cavalier*	
Compare		*Deer*	

Declare		*Engineer*	
Cookware		*Chair*	
Footwear		*Fear*	
Dare		*Frontier*	
Cheer		*Billionaire*	
Cohere		*Gear*	
Hair		*Glare*	
Hare		*Year*	
Mare		*Hear*	
Nightwear		*Air*	
Pair		*Armchair*	
Pare		*Au-pair*	
Pear		*Aware*	
Prepare		*Hemisphere*	
Rare		*Here*	
Hardware		*Peer*	
Repair		*Questionnaire*	
Ryanair		*Pioneer*	
Scare		*Despair*	
Square		*Mohair*	
Fare		*Fair*	
Sincere		*Volunteer*	
Sphere		*Nightmare*	
Stair		*Spare*	
Stare		*Parents*	

6. Choose a consonant between /θ/ and /ð/ (you do not need to transcribe the whole word). First do it on your own, then use a different colour and correct the transcription using a dictionary.

Mouth		*Brother*	
Thumb		*Nothing*	
Bathe		*With*	
Either		*Clothing*	
Path		*The*	

Booth		*Smooth*	
Scythe		*Thousand*	
Think		*Lithuania*	
There		*Hearth*	
Leather		*Thirst*	
Theatre		*Though*	
Rather		*Thanks*	
Another		*Thursday*	
That		*Length*	
Sheath		*Moth*	
Thigh		*Feather*	

7. Make minimal pairs for the following words:			
/let/		/ˈmeri/	
/meɪk/		/wɜːd/	
/ˈteɪbl̩/		/dʒæm/	
/ˈletə/		/saʊnd/	
/wɔːk/		/bɒks/	
/reɪn/		/kɪs/	
/wɒʃ/		/rəʊz/	
/dəʊnt/		/tekst/	

8. Give the spelling form of the following words:			
/ˈwɪsl̩/		/tʌŋ/	
/ˈbæleɪ/		/ges/	
/ˈkɑːsl̩/		/ˈsæmən/	
/aɪl/		/gəʊst/	
/kɑːf/		/briːð/	
/brɪdʒ/		/ˈwenzdeɪ/	
/ˈsɪzəz/		/daʊt/	
/ˈɒnə/		/tiːθ/	
/ˈrɪŋkl̩z/		/sɜːv/	
/braʊ/		/det/	
/ˈfɜːðə/		/wɔːm/	

/men/		/fəʊ/	
/fɪfθ/		/ɪə/	
/fəʊn/		/lɑːf/	
/mætʃ/		/weə/	

9. Give possible homophones in spelling for the following words:			
Foul		*Berry*	
Flee		*Blew*	
Ate		*Suite*	
Rap		*Mist*	
Hare		*Wood*	
Role		*I*	

3. DESCRIPTION

Acoustic and Articulatory Properties of Vowels

Vowels are articulated by raising some part of the tongue body towards the roof of the mouth as well as forwarding or backwarding the tongue body in the oral cavity. In order to plot the position of the tongue, traditionally vowels are described from a two-dimensional perspective of the movement of the tongue: vertical and horizontal. The vertical parameter indicates the distance or the height of the tongue, while the horizontal parameter depicts the advancement of the tongue. Both dimensions describe the **quality** of the vowel sounds.

The **Cardinal Vowel Diagram,** devised in 1917 by the British phonetician Daniel Jones, is a standard reference system with the range of vowels the human vocal apparatus can make located on a four sided figure and exhibiting the vertical and the horizontal parameters of the tongue (Roach 2009: 12) (*see IPA website for the Figure*). In relation to the Cardinal Vowel Diagram, the following groups of English vowels are formed according to the vertical and horizontal movement of the tongue as given below.

The Vertical Movement of the Tongue

The vertical movement positions the tongue low or high in the oral cavity or in other words, depicts the **height** of the tongue body. The IPA prefers the terms close and open referring to the space of the oral cavity that is shaped by the jaw. The following three major groups of English vowels are depicted:

- **high** or **close**: /ɪ/, /iː/, /ʊ/, /uː/;
- **mid** or **mid-open**: /e/, /ɔː/, /ɜː/, /ə/;
- **low** or **open**: /æ/, /ɒ/, /ʌ/, /ɑː/.

The Horizontal Movement of the Tongue

The horizontal movement positions the tongue forwards or backwards in the oral cavity**,** i.e. depicts the **advancement** or the **backness** of the tongue. The following three major groups of English vowels are depicted:

- **front**: /iː/, /ɪ/, /e/, /æ/;

- **central or mixed**: /ʌ/, /ɜ:/, /ə/;
- **back**: /ɒ/, /ɔ:/, /ʊ, /u:/, /ɑ:/.

Lip Position

The **position of the lips** is another factor that controls the quality of the vowels. Generally it refers to the roundedness of the lips, and accordingly the vowels fall into the following three groups *(see Figure 4)*:

- **rounded**: /ʊ/, /u:/, /ɒ/, /ɔ:/;
- **spread**: /ɜ:/, /e/, /i:/, /ɪ/, /æ/;
- **neutral**: /ʌ/, /ɑ:/, /ə/.

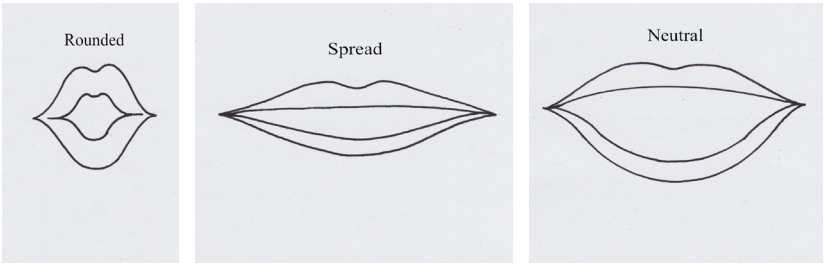

Figure 4. The shape of the lips *(adapted from Clark and Yallop 1992: 66)*

Duration and Tenseness

Duration is "the length of time involved in the articulation of a sound" (Crystal 2008: 159). In this sense, the distinction of relatively long and relatively short durations as measured in units of time can be made. Moreover, the length is often seen as the **quantity** of a vowel sound, which in English can be lost during the process of **reduction.** Thus duration of a particular vowel sound generally varies very much according to their context and the presence or absence of stress (Roach 2009: 16).

Tenseness refers "to the overall muscular effort used in producing a sound" (Crystal 2008: 480) and is used to describe the opposition of **tense** vowels**,** produced with tense organs of speech, and **lax** vowels, produced with less effort. Tense vowels are relatively longer and slightly different in the quality: higher and more marginal, while lax vowels are shorter, lower, and slightly more centralised.

The following 5 pure vowels in English can be described as **long** and **tense**: /iː/, /uː/, /ɑː/, /ɔː/, /ɜː/.

The remaining seven vowels are termed as **short** and **lax**: /ɪ/, /ʊ/, /ʌ/, /ɒ/, /ə/, /e/, /æ/.

Schwa

The vowel **/ə/** is the shortest possible sound in English and the most central in terms of the tongue height and advancement. On the other hand, it may be called the **neutral** vowel, since the tongue actually occupies a natural neutral position and is just relaxed for the articulation of this vowel sound. It has a special name **schwa** (from Hebrew, meaning 'emptiness'), occurs just in weak (unstressed) syllables and is particularly frequent vowel in English, e.g.: *character* /ˈkærəktə/. Many weak forms of function words have the schwa sound as well, e.g.: *a* /ə/, *the* /ðə/, *to* /tə/, *at* /ət/, *could* /kəd/, *must* /məst/.

Archiphonemes

A special attention should be given to two more additional vowel realisations, which in the broad transcription are attached the symbols of **/i/** and **/u/**. They represent the intermediate status between the phonemic contrasts in length (/iː/ and /ɪ/ and correspondingly /uː/ and /ʊ/) and they are called **archiphonemes**. Archiphonemes refer "to a way of handling the problem of neutralization (i.e. when the contrast between phonemes is lost in certain positions in a word)" (Crystal 2008: 34).

Skandera and Burleigh (2011: 51) specify the following phonetic environments for the intermediate /i/:

- in word final position, e.g. *lucky* /ˈlʌki/;
- in prefixes like *re-*, *pre-*, and *de-* when followed by a vowel, as in *react* /riˈækt/, *deactivate* /diˈæktɪveɪt/;
- in suffixes like *-tal*, *-iate*, and *-ious* when they are pronounced as two syllables, e.g. *appreciate* /əpriːʃieɪt/;
- in many function words (*he, she, we, me, be, the*, etc.) when followed by a vowel, e.g. *the air* /ði eə/.

The intermediate /u/ is much less common and usually occurs in unstressed syllables in these phonetic environments (ibid.):

- in some function words (*you, to, into, do*, etc.) when followed by a vowel, e.g. t*o us* /tu ʌs/.
- before a vowel within a word, when they are pronounced as two syllables, e.g. *eventually* /ɪˈventʃuəli/, *evacuate* /ɪˈvækjueɪt/.

Diphthongs and Triphthongs

"The sequences of vocalic elements included under the term 'diphthong' are those which form a glide within one syllable" (Cruttenden 2014: 170). In other words, diphthongs consist of two vowel sounds with the movement or **glide** from one vowel to another. The first vowel is much stronger and is called the **nucleus.** The second part is just a **glide** whose full formation is generally not accomplished. There are 8 diphthongs in English but their use is strongly the matter of dialectal variation. Diphthongs can also be classified depending on the height and advancement of the tongue into closing and centring diphthongs (see *Figure 5*):

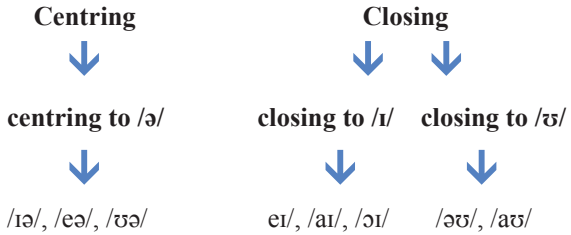

Figure 5. The classification of diphthongs *(adapted from Roach 2009: 17)*

Some phoneticians claim that there is one more type of complex vowels, namely triphthongs. **Triphthong** "is a glide from one vowel to another and then to a third, all produced rapidly and without interruption" (Roach 2009: 19). In a way, triphthongs are constructed from diphthongs and the schwa sound at the end. Roach (ibid.) indicates 5 possible combinations: /eɪə/, /aɪə/, /ɔɪə/, /əʊə/ and /aʊə/.

It must be admitted that triphthongs can be heard in just a very careful pronunciation.

Acoustic and Articulatory Properties of Consonants and Sonorants

All consonants are made by the closure, narrowing or approximation in the vocal tract, so that the air passage is either fully blocked or restricted to a certain extent. The pure 17 consonants are narrowed to the term **obstruents** because the airflow is always obstructed to a great extent when the sounds are articulated: /p/, /b/, /t/, /d/, /k/, /g/, /f/, /v/, /s/, /z/, /θ/, /ð/, /ʃ/, /ʒ/, /tʃ/, /dʒ/, /h/. The other seven consonants should be referred to as **sonorants** accordingly, since they have an articulation in which the obstruction is not great enough to cause turbulence, so the airflow penetrates in higher volume and with more sonority: /m/, /n/, /ŋ/, /l/, /r/, /j/, /w/.

Ashby and Maidment (2005: 53) give the following degrees of stricture:

- **closure**: the articulators are in firm contact;
- **narrowing**: the articulators are close together but not touching;
- **approximation**: there is a reasonably wide gap between the articulators.

Obstruents are pronounced with some closure or narrowing in the vocal tract, while sonorants are produced with approximation. All consonants (obstruents and sonorants) can be described in terms of the location of obstruction, the manner of obstruction, and the type of phonation it supports (Clark and Yallop 1992: 76). In other words, they are classified by **place, manner,** and **voicing** as detailed below.

The Place of Obstruction

The place of obstruction is the point of the contact between the active articulator and the passive one. Clark and Yallop (1992: 79) list the following groups of consonants in which various tongue positions are combined with various locations in the oral cavity during articulation:

- **bilabial** sounds are produced with the upper and lower lips pushed together: /p/, /b/, /m/, /w/;
- **labio-dental** sounds are articulated with contact between the lower lip and the upper teeth: /f/, /v/;
- **apico-dental** sounds are generated with the tip of the tongue protruded between the lower and the upper teeth: /θ/, /ð/;
- **apico-alveolar** sounds are made by advancing the tip of the tongue toward the alveolar ridge: /t/, /d/, /n/, /l/, /s/, /z/;

- **lamino-alveolar** sounds are produced by raising the blade of the tongue toward the alveolar region: /ʃ/, /ʒ/, /tʃ/, /dʒ/;
- **apico-postalveolar** sound is made by upturning the tip of the tongue behind the alveolar ridge: /r/;
- **lamino-palatal** sounds are pronounced by advancing the blade of the tongue toward the highest part of the hard palate: /j/;
- **velar** sounds are made as the tongue body makes contact with the soft palate: /k/, /g/, /ŋ/;
- **glottal** sound is produced by the narrowing of the glottis as the wall of the pharynx makes contact with the root of the tongue: /h/.

The Manner of Obstruction

The **manner of obstruction** defines the degree and type of obstruction (stricture) ranging from total closure of the vocal tract to nearly open (approximation). Accordingly, the types of obstruction are as follows:

- **occlusive;**
- **constrictive;**
- **occlusive-constrictive.**

For the **occlusive obstruction** the articulators occlude (completely close off) the vocal tract at some point to generate two groups of sounds:

- **plosive obstruents or stops** (the closure is in the oral cavity): /p/, /b/, /t/, /d/, /k/, /g/;
- **nasal sonorants (**the closure is in the pharynx**)**: /m/, /n/, /ŋ/.

For the **constrictive obstruction** the articulators are rather close together ranging from narrowing to approximation in order to generate the following two groups of sounds:

- **fricative obstruents** (narrowing): /f/, /v/, /s/, /z/, /θ/, /ð/, /ʃ/, /ʒ/, /h/;
- **approximant sonorants** (approximation): /l/, /r/, /j/, /w/.

Some phoneticians (e.g. Collins and Mees 2013) further subdivide the approximant sonorants into **lateral** /l/ and **medial** /r/, /j/ and /w/ to demonstrate the escape of the airflow via the rims of the tongue and the middle of the tongue, accordingly.

The **occlusive-constrictive obstruction** is a double-sided obstruction with the initial closure to produce a plosive sound and the further constrictive release in order to generate a fricative sound. The combination results into the production of homorganic sounds:

- **affricates:** /tʃ/, /dʒ/.

Voicing

Voicing refers to the result of the vibration of the vocal folds at the phonation stage of sound production. Consonants, produced while the vocal folds are in contact and vibrating are called **voiced** sounds and they are: /b/, /d/, /g/, /v/, /z/, /ʒ/, /ð/, /dʒ/, /h/, /m/, /n/, /ŋ/, /l/, /r/, /j/, /w/.

Consonants produced through the glottis with vocal folds set apart are termed as **voiceless**: /p/, /t/, /k/, /f/, /s/, /ʃ/, /θ/, /tʃ/.

According to the muscular effort and breath force voiced and voiceless can be termed as **fortis** (relatively strong**)** and **lenis** (relatively weak) (Roach 2009: 28).

EXERCISES:

1. What particular vowel phonemes are defined below according to the position of the tongue?			
High front		*Mid back*	
High back		*Low central*	
Mid central		*Low back*	

2. Group the following words according to the vowel length: *spread, wool, cut, lax, wood, watch, song, reach, learn, add, heart, short, pull, turn, jaw, glimpse*	
Words containing long vowels	***Words containing short vowels***

3. Choose between diphthongs and triphthongs (you do not need to transcribe the whole word). First do it on your own, then use a different colour and correct the transcription using a dictionary.			
Liar		*Hour*	
Voice		*Pure*	
Bowl		*Point*	
Lire		*Cruel*	
Fire		*Lower*	
Loin		*Tow*	
Loyal		*Mower*	
Power		*Our*	

3. Do the following pairs of consonants have the same or different place of articulation?			
/g/ *and* /k/		/k/ *and* /t/	
/v/ *and* /f/		/l/ *and* /n/	
/dʒ/ *and* /h/		/s/ *and* /d/	

4. What are the types of obstruction of the following sounds?			
/v/		/z/	
/w/		/h/	
/m/		/ŋ/	
/b/		/j/	
/ʃ/		/dʒ/	

5. Give all the possible characteristics to the following vowel sounds:	
/æ/	
/ə/	
/ɔ:/	
/ɜ:/	

6. Give all the possible characteristics to the following consonant sounds:	
/ð/	
/dʒ/	
/j/	
/θ/	
/v/	
/w/	
/ŋ/	

4. TRANSCRIPTION

The Structure of the Syllable

Transcription is closely related to **syllabification**. The transcription of monosyllabic words is quite straightforward and checks just the auditory skill to identify the sound and record its symbol. The transcription of polysyllabic words involves the placement of stress symbol and the differentiation between strong and weak syllables with possible sounds.

The **syllable** may be defined as an uninterrupted unit of an utterance that is typically larger than a single sound and smaller or equal to a word, e.g. *see* /siː/, *simplify* /ˈsɪm.plɪ.faɪ/ (Crystal 2008: 467). For descriptive purposes the syllable can be divided into its **onset** and **rhyme**. The rhyme is made up of the **nucleus**, i.e. the vowel that is obligatory and the most prominent part of the syllable, and the **coda** that consists of any consonants that come after the nucleus. The consonants before the rhyme are defined as the onset.

Since every utterance contains at least one syllable, there are **minimum syllables**, which can be formed by a single vowel, e.g. *are* /ɑː/, *or* /ɔː/. In dictionaries syllabification is usually marked by putting dots between syllables, e.g.: *consonant* /ˈkɒn.sə.nənt/.

Some syllables are exceptional in the sense that they can be made of a consonant sound alone that stands for the nucleus. Usually this is either the lateral sonorant /l/ or the nasal sonorant /n/ (sometimes /m/) and generally the syllabic position of the sonorants is at the end of words. Thus, words like *bottle* /ˈbɒtl/, *trouble* /ˈtrʌbl/, *pigeon* /ˈpɪdʒn/ and *often* /ˈɒfn/ are made of two syllables and the syllabic sonorants are noted with a small vertical diacritics underneath the symbol, e.g. /ˈtrʌb̩/, /ˈpɪdʒn̩/ to show the existence of a different syllable.

The Transcription of Monosyllabic Words

Typically there are two styles of transcription: broad and narrow. **The broad transcription** shows only the phoneme contrasts, thus is also called **phonemic transcription**. It is less detailed than narrow transcription and is used in pronunciation keys and dictionaries, e.g. *clean* /kliːn/. **The narrow transcription** is known as **phonetic transcription** that indicates all phonological features of phonemes and adds diacritics to the symbols to show their existence, e.g. *clean* [kl̥iːn].

The transcription of monosyllabic words involves the recognition of particular sounds and the ability to relate the sounds to their phonemic symbols. **Monosyllabic content words** represent strong syllables only. Roach (2009: 64) explains that "any strong syllable will have as its peak one of the vowel phonemes, but not /ə/, /i/ or /u/". Also, the strong syllables containing short sounds /ɪ/, /ʊ/, /ʌ/, /ɒ/, /e/ and /æ/ will necessarily have a coda as well (ibid.). **Function (grammar) words** may be realised in both: strong and weak syllables, e.g. *the* /ðə/.

The Transcription of Polysyllabic Words

In words containing more than one syllable, i.e. in polysyllabic words, there is a syllable that stands out from the remainder in terms of prominence. The accentuated syllable receives a **stress**, marked by a superscripted vertical line, e.g. *emphasis* /ˈemfəsɪs/. Some words may contain a few accented syllables that differ in their degree of prominence and levels of stress, e.g. *intonation* /ˌɪntəˈneɪʃn̩/ and *university* /ˌjuːnɪˈvɜːsɪti/. **The primary stress** is the strongest and marked with a raised vertical line /ˈ/, while **the secondary stress** is comparatively weaker than the primary one, but much stronger than the weak syllables. In transcription the secondary stress is represented with a low mark /ˌ/.

Collins and Mees (2013: 130) indicate four main variables that describe the existence of stress: **intensity (loudness), pitch variation, vowel duration** and **vowel quality**. The stressed syllables are supposed to be relatively louder, higher pitched, considerably longer and containing full vowel quality (as opposed to weak vowels /ə/, /i/ or /u/). Conversely, the unstressed syllables are the weak ones.

On the one hand, English is a free stress language, i.e. it has a movable stress that is not tied to any particular syllable in a word. On the other, Roach (2009: 76) asserts that it is possible to predict the stressed syllables by deciding the syllable number in the word, the phonological structure of the syllable, the grammatical category of the word, and the morphological structure of the word (for some stress patterns see *Tables 1, 2, 3* and *4* below)

Table 1. **Stress patterns according to syllabification** *(adapted from Roach 2009: 77-78)*

Disyllabic words	Nouns	Stress on the first syllable	*object*	/ˈɒbdʒekt/
			speaker	/ˈspiːkə/
	Verbs	Stress on the final syllable (if the final syllable is strong)	*arrange*	/əˈreɪndʒ/
			release	/rɪˈliːs/
		Stress on the first syllable (if the final syllable is weak)	*fasten*	/ˈfɑːsn̩/
			open	/ˈəʊpən/
	Adjectives	Stress on the final syllable (if the final syllable is strong)	*polite*	/pəˈlaɪt/
			discrete	/dɪˈskriːt/
		Stress on the first syllable (if the final syllable is weak)	*lovely*	/ˈlʌvli/
			fatal	/ˈfeɪtl̩/
Trisyllabic words	Nouns	Stress on the first syllable	*chocolate*	/ˈtʃɒklət/
			paragraph	/ˈpærəgrɑːf/
		Stress on the second syllable (if the first syllable is weak)	*confusion*	/kənˈfjuːʒn̩/
			potato	/pəˈteɪtəʊ/
	Verbs	Stress on the final syllable (if it is strong)	*entertain*	/ˌentəˈteɪn/
			resurrect	/ˌrezəˈrekt/
		Stress on the preceding final syllable (**penultimate**) (if the final syllable is weak)	*remember*	/rɪˈmembə/
			acknowledge	/əkˈnɒlɪdʒ/
			determine	/dɪˈtɜːmɪn/
		Stress on the first syllable (if the final and the preceding final syllables are weak)	*motivate*	/ˈməʊtɪveɪt/
			monitor	/ˈmɒnɪtə/
			celebrate	/ˈseləbreɪt/
	Adjectives	Stress on the first syllable	*insolent*	/ˈɪnsələnt/
			positive	/ˈpɒzɪtɪv/

Table 2. **Stress patterns according to suffixes** *(adapted from Roach 2009: 83-84)*

Self-stressed suffixes (carry the primary stress themselves)	*-ee*		*refugee*		/ˌrefjʊˈdʒiː/
	-eer		*engineer*		/ˌendʒɪˈnɪə/
	-ese		*Portuguese*		/ˌpɔːtʃʊˈgiːz/
	-ette		*kitchenette*		/ˌkɪtʃɪˈnet/
	-esque		*sculpturesque*		/ˌskʌlptʃəˈresk/
Neutral suffixes (do not affect stress placement)	*-able*	*knowledge*	/ˈnɒlɪdʒ/	*knowledgeable*	/ˈnɒlɪdʒəbl̩/
	-ous	*continue*	/kənˈtɪnjuː/	*continuous*	/kənˈtɪnjʊəs/
	-age	*cover*	/ˈkʌvə/	*coverage*	/ˈkʌvərɪdʒ/
	-al	*rebut*	/rɪˈbʌt/	*rebuttal*	/rɪˈbʌtəl/
	-er	*advertise*	/ˈædvətaɪz/	*advertiser*	/ˈædvətaɪzə/
	-ate	*affection*	/əˈfekʃn̩/	*affectionate*	/əˈfekʃənət/
	-en	*threat*	/θret/	*threaten*	/ˈθretn̩/
	-ful	*wonder*	/ˈwʌndə/	*wonderful*	/ˈwʌndəfəl/
	-ess	*steward*	/ˈstjʊəd/	*stewardess*	/ˌstjʊəˈdes/
	-hood	*like*	/ˈlaɪk/	*likelihood*	/ˈlaɪklɪhʊd/
	-man	*business*	/ˈbɪznəs/	*businessman*	/ˈbɪznəsmæn/
	-like	*child*	/tʃaɪld/	*childlike*	/ˈtʃaɪldlaɪk/
	-less	*power*	/ˈpaʊə/	*powerless*	/ˈpaʊəlɪs/
	-ish	*fool*	/fuːl/	*foolish*	/ˈfuːlɪʃ/
	-ly	*hurried*	/ˈhʌrɪd/	*hurriedly*	/ˈhʌrɪdli/
	-ment	*acknowledge*	/əkˈnɒlɪdʒ/	*acknowledgment*	/əkˈnɒlɪdʒmənt/
	-ness	*discursive*	/dɪˈskɜːsɪv/	*discursiveness*	/dɪˈskɜːsɪvnəs/
	-ous	*poison*	/ˈpɔɪzn̩/	*poisonous*	/ˈpɔɪzənəs/
	-fy	*glory*	/ˈglɔːri/	*glorify*	/ˈglɔːrɪfaɪ/
	-ship	*relation*	/rɪˈleɪʃn̩/	*relationship*	/rɪˈleɪʃnʃɪp/
	-some	*burden*	/ˈbɜːdn̩/	*burdensome*	/ˈbɜːdnsəm/

Influencing suffixes (influence stress in the stem)	*-al*	*government*	/ˈgʌvənmənt/	*governmental*	/ˌgʌvnˈmentl/
	-eous	*advantage*	/ədˈvɑːntɪdʒ/	*advantageous*	/ˌædvənˈteɪdʒəs/
	-graphy	*photograph*	/ˈfəʊtəgrɑːf/	*photography*	/fəˈtɒgrəfi/
	-ate	*origin*	/ˈɒrɪdʒɪn/	*originate*	/əˈrɪdʒəneɪt/
	-ic	*climate*	/ˈklaɪmət/	*climatic*	/klaɪˈmætɪk/
	-ion	*transport*	/træns ˈpɔːt/	*transportation*	/ˌtrænspɔːˈteɪʃn/
	-ious	*injure*	/ˈɪndʒə/	*injurious*	/ɪnˈdʒʊərɪəs/
	-ity	*banal*	/bəˈnɑːl/	*banality*	/bəˈnæləti/
	-ive	*prospect*	/prəˈspekt/	*prospective*	/prəˈspektɪv/
	-nda	*agent*	/ˈeɪdʒənt/|	*agenda*	/əˈdʒendə/

***Table 3*. Stress patterns in compounds** *(adapted from Roach 2009: 85-86)*

Compound nouns	General rule	Primary stress on the first element, secondary stress on the second element	*wristwatch*	/ˈrɪstˌwɒtʃ/
			swimming pool	/ˈswɪmɪŋ ˌpuːl/
			goldfish	/ˈgəʊldˌfɪʃ/
	If the first element is an ingredient of the second element	Primary stress on the second element, secondary stress on the first element	*apple pie*	/ˌæpl ˈpaɪ/
			strawberry milkshake	/ˌstrɔːbri ˈmɪlkʃeɪk/
			chicken bouillon	/ˌtʃɪkɪn ˈbuːjɒn/
			beef stew	/ˌbiːf ˈstjuː/
	Except compounds ending in cake, juice or water	Primary stress on the first element, secondary stress on the second element	*chocolate cake*	/ˈtʃɒklət ˌkeɪk/
			lemon juice	/ˈlemən ˌdʒuːs/
			rosewater	/ˈrəʊz ˌwɔːtə/

Compound adjectives	General rule	Primary stress on the second element, secondary stress on the first element	*blue-eyed*	/ˌbluː ˈaɪd/
			open-minded	/ˌəʊpən ˈmaɪndɪd/
			kindhearted	/ˌkaɪnd ˈhɑːtɪd/
	If the first element is a noun	Primary stress on the first element, secondary stress on the second element	*homesick*	/ˈhəʊm ˌsɪk/
			handmade	/ˈhænd ˌmeɪd/
Compound verbs		Primary stress on the second element, secondary stress on the first element	*overboil*	/ˌəʊvə ˈbɔɪl/
			underestimate	/ˌʌndəˈrestɪmeɪt/
			outrun	/ˌaʊtˈrʌn/

***Table 4*. Stress patterns in word-class pairs** *(adapted from Roach 2009: 87)*

Two-syllable nouns	Stress on the first syllable	*conduct*	/ˈkɒndəkt/
		contract	/ˈkɒntrækt/
		permit	/ˈpɜːmɪt/
		present	/ˈprezənt/
Two-syllable adjectives	Stress on the first syllable	*abstract*	/ˈæbstrəkt/
		perfect	/ˈpɜːfəkt/
		present	/ˈprezənt/
Two-syllable verbs	Stress on the second syllable	*conduct*	/kənˈdʌkt/
		contract	/kənˈtrækt/
		abstract	/əbsˈtrækt/
		permit	/pəˈmɪt/
		perfect	/pəˈfekt/
		present	/prɪˈzent/

Strong and Weak Forms of Function Words

In connected speech, however, accentuation is a more complicated matter. Typically **content words**, i.e. nouns, verbs, adjectives, adverbs, numerals, demonstrative pronouns and other are stressed, while **function (grammar words)**, such as auxiliaries, modals, articles, prepositions, particles and other are more likely to be unstressed, although, they too, may be exceptionally accented if the meaning requires it (Cruttenden 2014: 299). Accordingly they are used in their **weak** and **strong** forms (*see Table 5*). The quality and quantity of the vowel sounds is lost, i.e. vowels undergo the process of **reduction** into weak forms. Compare the strong and weak use of the pronoun *you* in the following examples:

How can I help you?
/ˈhaʊ kən aɪ ˈhelp jə || /
I would help you, not Jane.
/ˈaɪ wəd help ˈjuː | ˈnɒt ˈdʒeɪn || /

Table 5. **Strong and weak forms of function words** *(adapted from Collins and Mees 2003: 239-241)*

Function word	Strong form	Weak form
Determiners		
the	/ðiː/	/ði/ (before vowels)
		/ðə/ (before consonants)
a	/eɪ/	/ə/
an	/æn/	/ən/
some	/sʌm/	/səm/
Pronouns		
his	/hɪz/	/(h)ɪz/
him	/hɪm/	/(h)ɪm/
her	/hɜː/	/(h)ə/
you	/juː/	/ju/ (before vowels)
		/jə/ (before consonants)
your	/jɔː/	/jə/
she	/ʃiː/	/ʃi/

he	/hiː/	/(h)i/
we	/wiː/	/wi/
me	/miː/	/mi/
them	/ðem/	/ðəm/
us	/ʌs/	/əs/
who	/huː/	/(h)u/
that	/ðæt/	/ðət/
Prepositions and Particles		
then	/ðen/	/ðən/
at	/æt/	/ət/
for	/fɔː/	/fə/
from	/frɒm/	/frəm/
of	/ɒv/	/əv/
into	/ˈɪntuː/	/ˈɪntu/ (before vowels)
		/ˈɪntə/ (before consonants)
through	/θruː/	/θru/
to	/tuː/	/tu/ (before vowels)
		/tə/ (before consonants)
as	/æz/	/əz/
there	/ðeə/	/ðə/
Conjunctions		
and	/ænd/	/ənd/ /ən//n̩/
but	/bʌt/	/bət/
that	/ðæt/	/ðət/
than	/ðæn/	/ðən/
or	/ɔː/	/ə/
Auxiliary verbs		
can	/kæn/	/kən/
could	/kʊd/	/kəd/
have	/hæv/	/(h)əv/
has	/hæz/	/(h)əz/
had	/hæd/	/(h)əd/
will	/wɪl/	/wɪl/ /l/
shall	/ʃæl/	/ʃəl/ /ʃl̩/

should	/ʃʊd/	/ʃəd/
would	/wʊd/	/wəd/
must	/mʌst/	/məst/ /məs/
do	/du:/	/du/ (before vowels)
		/də/ (before consonants)
does	/dʌz/	/dəz/
be	/bi:/	/bi/
been	/bi:n/	/bin/
am	/æm/	/əm/
are	/ɑ:/	/ə/
is	/ɪz/	/ɪz/
		/z/ /s/ (in contracted forms)
was	/wɒz/	/wəz/
were	/wɜ:/	/wə/

EXERCISES:

1. Transcribe the monosyllabic words. First do it on your own, then use a different colour and correct the transcription using a dictionary.			
Bald		*Nerve*	
Bare		*Pew*	
Blouse		*Pierce*	
Bomb		*Pope*	
Bounce		*Prawn*	
Breadth		*Prompt*	
Bronze		*Quartz*	
Bull		*Rough*	
Bush		*Saint*	
Chalk		*Scene*	
Chance		*Score*	
Chap		*Scowl*	
Chord		*Screw*	

Clause		*Scrounge*	
Cloud		*Shrimp*	
Coach		*Smooth*	
Crypt		*Snore*	
Damp		*Soul*	
Duke		*Splash*	
Dumb		*Sponge*	
Fraud		*Squad*	
Freeze		*Stove*	
Froth		*Strength*	
Gem		*Swamp*	
Gnome		*Throne*	
Glam		*Torch*	
Growth		*Trash*	
Guard		*Urge*	
Helm		*Voice*	
Huge		*Waltz*	
Hymn		*Wasp*	
Jazz		*Wealth*	
Judge		*Wharf*	
Juice		*Wheel*	
Launch		*Whirl*	
Lawn		*Width*	
Lime		*Wool*	
Lounge		*Worth*	
Mauve		*Wound*	
Monk		*Wreck*	
Moon		*Yacht*	
Myth		*Yield*	

2. Transcribe the polysyllabic words. First do it on your own, then use a different colour and correct the transcription using a dictionary.			
Accept		*Dictionary*	
Empathetic		*Exemplify*	

Accommodate		*Agitated*	
Passionate		*Question*	
Afraid		*Exhausted*	
Opinion		*Aggressive*	
Patient		*Pronoun*	
Preference		*Euphoric*	
Although		*Quivering*	
Alarmed		*Exuberant*	
Ferocious		*Alternative*	
Rational		*Figure*	
Flexible		*Reasonable*	
Anomalous		*Focused*	
Resolute		*Reflective*	
Antagonist		*Sensitive*	
Gloomy		*Humorous*	
Habitual		*Ultimate*	
Competitive		*Anxious*	
Capable		*Concerned*	
Magical		*Conservative*	
Appropriate		*Frightened*	
Arrogant		*Hesitant*	
Astonished		*Hostile*	
Concert		*Attentive*	
Attitude		*Hysterical*	
Bachelor		*Ignorant*	
Bothered		*Imagine*	
Casual		*Jealous*	
Charming		*Liberal*	
Tenacious		*Linguistic*	
Happy		*Listener*	
Conspicuous		*Loyal*	
Compulsive		*Comfortable*	
Considerate		*Magnificent*	
Utterance		*Whisper*	

Constituent		*Merely*	
Content		*Volcanic*	
Versatile		*Muscular*	
Wonderful		*Mysterious*	
Critical		*Courageous*	
Curious		*Neglected*	
Zippered		*Western*	

3. Transcribe the following word indicating primary and secondary stresses. First do it on your own, then use a different colour and correct the transcription using a dictionary.

Abbreviation		*Facilitation*	
Dramatisation		*Cancelation*	
Academic		*Collaboration*	
European		*Independent*	
Appreciation		*Juridical*	
Exhibition		*Ventilation*	
Falsification		*Generalisations*	
Capitalisation		*Vocalisation*	
Intensification		*Composition*	
Familiarisation		*Materialistic*	
Jollification		*Legalisation*	
Kilimanjaro		*Victimisation*	
Kilometer		*University*	
Pedagogical		*Wearability*	

4. Transcribe the compounds and phrasal verbs indicating primary and secondary stresses. First do it on your own, then use a different colour and correct the transcription using a dictionary.

Baby-talk		*Database*	
Above-mentioned		*Daylight*	
Chicken-hearted		*Dearly beloved*	
Over-burden		*Fairy tale*	
Earplug		*Undercrossing*	
Fade away		*Ear-drops*	

Get together		*Football*	
Baking-powder		*Earthshaking*	
Windpipe		*Easy going*	
Brightly lit		*Wash down*	
Goldfish		*Gas alarm*	
Daisy chain		*Balance-bridge*	
Barefooted		*Caffeine-free*	
Hard-earned		*Sea sick*	
Blacklist		*Under-charge*	
Healthcare		*Cheesburger*	
Hay fever		*Girlfriend*	
Shop addicted		*Over-react*	
Half-asleep		*Hairdresser*	
Cacao-tree		*Undergo*	
Bathing costume		*Backbone*	
Damp-proof		*Check in*	
Catch up		*Headscarf*	
Press-release		*Television set*	
Come across		*Carrier pigeon*	
High-frequency		*Run into*	
Weather report		*Well judged*	
Chinatown		*Walk across*	
Vanishing point		*Underlet*	
Toothpaste		*Think over*	
Pan-cake		*Value free*	
Life long		*Trouble free*	
Jackpot		*Journal box*	
Woodwork		*Kilometer*	
Keep away		*Leave out*	
Webmaster		*Oak-tree*	
Video conference		*Network*	

5. Transcribe the following word class pairs. First do it on your own, then use a different colour and correct the transcription using a dictionary.			
Perfect, N.		*Perfect, V.*	
Desert, N.		*Desert, V.*	
Permit, N.		*Permit, V.*	
Record, N.		*Record, V.*	
Import, N.		*Import, V.*	
Contrast, N.		*Contrast, V.*	
Insult, N.		*Insult, V.*	
Object, N.		*Object, V.*	
Perfect, N.		*Perfect, V.*	
Subject, N.		*Subject, V.*	
Rebel, N.		*Rebel, V.*	
Protest, N.		*Protest, V.*	
Present, N.		*Present, V.*	

6. Transcribe the following sentences (use strong and weak forms of function words according to the context).	
The sun was setting in the west and the moon was just rising.	
When it hurts to look back, and you're scared to look ahead, you can look beside you and your best friend will be there.	
What do you do when the only person who can make you stop crying is the person who made you cry.	
What you really need is a bit of good rest.	
We are eager to learn as much as possible as we need to spread the knowledge to others	

REFERENCES

Ashby, M. and Maidment, J. (2005). *Introducing Phonetic Science*. Cambridge: Cambridge University Press.

Balčytytė-Kurtinienė, G. (2014). *A Course in English Phonetics for EFL University Students*. Vilnius: Vilnius University Publishing House.

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

Collins, B. and Mees, I. M. (2003). *Practical Phonetics and Phonology*. London: Routledge.

Collins, B. and Mees, I. M. (2013). *Practical Phonetics and Phonology*. 3rd edition. 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. and Cruttenden, A. (2008). *Gimson's Pronunciation of English*. 7th edition. London: Edward Arnold.

Hudson, R. A. (1996). *Sociolinguistics*. 2nd edition. Cambridge: Cambridge University Press.

International Phonetic Association Official Website: http://www.langsci.ucl.ac.uk/ipa/vowels.html [accessed 24 February, 2014].

Jenkins, J. (2000). *Phonology of English as an International Language: new models, new norms, new goals.* Oxford: Oxford University Press.

Munro, M. J. and Derwing, T. M. (2009). Comprehensibility as a Factor in Listener Interaction Preferences: implications for the workplace. *Canadian Modern Language Review*, *66* (2), 181–202.

Reed, M. and Levis, J. (Eds.). (2015). *The Handbook of English Pronunciation*. Malden, MA: Wiley-Blackwell.

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

Skandera, P. and Burleigh P. (2011). *A Manual of English Phonetics and Phonology*. 2nd edition. Tubingen: Narr Verlag.

Trudgill, P. (1999). *The Dialects of England*. Oxford: Blackwell Publishers.

ISBN 978-609-471-090-2

The concise practical aid “PRODUCTION, RECOGNITION, DESCRIPTION AND TRANSCRIPTION OF ENGLISH SOUNDS” introduces the readers with fundamental segmental aspects of English, provides key theoretical concepts in the field of English Phonetics as well as a series of graded exercises that equip the readers with basic skills necessary for the production, recognition, description and transcription of English speech sounds. It is meant for the 1st year university students, is arranged in four broad topics and serves as an introductory course before further segmental and suprasegmental analysis of speech.

Redagavo *Giedrė Balčytytė-Kurtinienė*
Maketavo *Silva Jankauskaitė*

SL 605. Užsak. Nr. 017-078
Išleido Lietuvos edukologijos universiteto leidykla
T. Ševčenkos g. 31, LT-03111 Vilnius
Tel. +370 5 233 3593, el. p. leidykla@leu.lt