



**KAPITEL 4 / CHAPTER 4<sup>4</sup>**  
**ESP LISTENING IN ONLINE LEARNING TO UNIVERSITY STUDENTS**

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## **Introduction**

Communication is one of the basic competencies in modern society, intercultural relations are necessary for any professional activity. It depends on foreign language proficiency, which is an integral part of higher education.

Nowadays, a large amount of knowledge ceases to be the main educational goal, though an indispensable condition for personal and professional realization has become more important. In this regard, the task of any foreign language teacher is to help students become active partners in learning rather than passive listeners and to develop self-studying abilities beyond the curriculum bounds.

Modern requirements for engineering 'specialists' training include an ability to communicate effectively professionally in the native language and a foreign language having first of all an opportunity to carry out professional and business communication in English as the language of international communication at scientific conferences and most international publications.

The realities of modern education pose new challenges for foreign language teachers in engineering specialists training as they should carry out professional communication in both native and foreign languages, which in business and scientific spheres means correspondence exchange with a foreign partner, telephone calls, negotiations in a foreign language, presentations, etc. In academic discourse, students should understand lectures, make speeches and presentations at conferences, take notes, and write scientific papers.

Effective communication demands the developed ability to formulate thoughts and ideas in a foreign language and includes four interdependent skills: written speech (writing), written speech comprehension (reading), and oral speech (speaking), oral speech comprehension (listening). Among the aforementioned skills teaching listening causes the greatest difficulties due to the specifics of auditory perception.

Modern realities determine English language knowledge as one of the basic communicative competence of a modern qualified specialist. Therefore, teaching

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English is one of the priorities of higher education.

An important component of the higher education system is the study of a foreign language, as an integral element of human culture expanding the student's picture of the world, created in the native language (Decruy, 2020, p. 555).

University students interpret the goal of learning a foreign language as an ability to communicate in this language and the basis of oral communication is a foreign language listening or aural perception (Puspita, 2021). In a situation of real communication, most of the student's time is devoted to listening and perception of information from the interlocutor. How accurately they understand the received information determines their subsequent actions. Helping students learn to perceive and understand oral speech is the main goal of listening (Quasthoff, 2011, p. 12).

Listening comprehension plays an important role in learning a foreign language since it is one of the channels for transmitting the information. In a foreign language class, the teacher's goal is to organize a communicative situation, where the students listen to the speech of the teacher, their groupmates, and a range of audio and video recordings. The inability to understand auditory material can bring negative emotions since listening comprehension affects speaking, reading, and writing skills.

#### **4.1. Analysis of recent research and publications**

For the first time, the term *listening* was mentioned by the American psychologist D. Brown in the book called "Teaching Aural English" (Brown, 2022). It defines listening as a receptive type of speech activity, a semantic perception of an oral message, which includes the simultaneous perception of the linguistic form and the statement content comprehension.

Listening was attributed to a complex speech skill, closely related to speaking, and was also considered an independent and specific type of speech activity. Being a receptive type of speech, listening is the perception and understanding of generated speech by ear.

De Gelder and J. Vroomen, regard listening as an activity of perceiving and recognizing a speech message by ear, a complex, specifically human type of internal speech activity, which in the process of learning should have an external plan (Ellis, 2019, p. 289-301).

J. Skipper, J. Devlin, and D. Lametti describe listening as a perceptual mental



mnemonic activity (Skipper, 2017, p. 79). D. Massaro and J. Simpson characterize listening as a complex mental-mnemonic activity based on the perception, comprehension, and processing of an oral message (Mei, 2028). W. Freeman singled out the following characteristics of listening as a type of speech activity: listening implements oral and direct communication; is a reactive and receptive type of communication; the course of listening is internal, and uneven (Freeman, 1991).

Listening as any process is based on certain psychophysiological mechanisms: perception, recognition, and comprehension (Massaro, 2014). The mechanism of listening is described in detail in the psychological literature. M. Call and J. Sachs identify the mechanisms of listening with the processes of long-term and short-term memory and reflection of reality as a receptive synthesis of production and probabilistic prediction (Cauldwell, 2018; Singh, 2020). At the end of the twentieth century, based on psychological studies, a theory of listening was developed, defining two listening models – *bottom-up* (a sounding message decoding) and *top-down* (communication context) (Osada, 2001; Tsui, 1998). From our point of view, both models coexist and depend on the teacher's goals and the student's level of language proficiency, so both models could be used in teaching listening.

In the context of studying the factors contributing to the success of listening comprehension, the theory of speech flow segmentation should be also mentioned (Osada, 2001). M. Yeldham considers syntagma as one of the units of speech flow, which conveys the subtle semantic and stylistic shades of the message, ensuring the dominance of the semantic unity of speech and sound (Yeldham, 2018).

## 4.2. Objectives

In this work, we have made an attempt to describe the stages traditionally used in developing students' listening skills.

The goal of teaching listening comprehension is to develop students' ability to understand foreign speech by ear. The training listening includes linguistic, psychological, and methodological components. Listening texts can be ranked according to the degree of difficulty. There are three stages in teaching listening comprehension: pre-listening, listening, and post-listening.

The changes in the development of listening skills in modern universities are related to various digital teaching aids, used in a range of educational situations. The



existing computer-based learning programs for foreign languages do not always meet the basic requirements of the university curriculum. Such programs are mostly designed for individual learning.

### **4.3. Statement of the problem**

Listening is a complex receptive skill based on the perception, comprehension, and processing of information in oral speech. (Osada, 2001, p.80).

The listening perception is dependent on various kinds of interference (noise, speech defects, hearing imparities, etc.) (Bardovi-Harlig, 2022, p. 51-53). Developing listening skills is a part of foreign language teaching providing an opportunity to understand speech utterances as separate lexical units in the language. Listening is an integral part of teaching phonetics and intonation (rhythm, pause, stress, melody, etc.). The students can learn lexical units and the grammatical structures of a new language system as well.

Listening is multifunctional and related to other language skills (speaking, reading, and writing). L. Vandergrift identifies two types of listening with complete and partial comprehension of the text. The result of listening could be information comprehension, partial comprehension, or incomprehension. (Vandergrift, 2006, p. 6-11).

Listening and speaking are closely interconnected with each other, since, in the process of communication, we perceive aural information, process it, formulate an oral statement, and then reproduce it in speech.

Listening and reading are both receptive types of speech. The process of text reading or listening results in information comprehension. The difference is in the auditory or visual channels for information perception. In the process of reading aloud, both channels (auditory and visual) are activated, which helps to perceive the information better and faster (Grosjean, 2018).

The connection between listening and writing should not be underestimated, because writing is dependent on the aural perception of speech units, which are primary to writing and represent the text as a graphic design of speech. (Martin, 2016, p. 1823).

Thus, listening is related to all other types of communication.

The process of listening is dependent on short-term memory, which is responsible for retaining information, and long-term memory, which stores images of lexical units



(Costigan, 2020). Listening skills contribute to cognitive development through visual and sound images recreating a holistic picture of the world.

Listening has always been considered one of four skills. More recent views on listening have been based on cognitive psychology, which regarded the processes of teaching listening as *bottom-up* and *top-down* interpretations of the text.

At the same time, linguists have studied a lot of new things about the essence and structure of colloquial discourse. They assert that written information read aloud cannot serve as an adequate basis for developing listening skills sufficient for authentic discourse. Thus, modern views on the listening process emphasize the role of the listener as an active participant, employing various strategies to facilitate, monitor, and evaluate listening (Yoon, 2019).

Listening in recent years has been considered not only as a process of aural text comprehension but also as a way of language learning since it can provide the input necessary for foreign language understanding. This raises the question of conscious awareness of the language form, which helps students to include new word forms and structures in their active vocabulary. Different points of view define listening comprehension and listening as a skill. The main function of listening in foreign language learning is to facilitate spoken discourse comprehension (Kang, 2019).

For understanding the nature of what is involved in listening, it is necessary to consider some of the features of spoken discourse and the problems it poses to listeners. Spoken discourse has different characteristics from written discourse, and these differences can add several dimensions to our understanding of how we process and listened to the speech. Spoken language usually happens instantly and the listener must process it right away, as often there is no possibility to listen to it again. Spoken foreign language discourse often seems to be an inexperienced listener very fast. Monologues can be up to 160 wpm, and normal conversation is usually up to 220 wpm. The impression of faster or slower speech usually comes from the amount of intra-clausal pauses that the speakers make. Unlike writing, spoken discourse usually occurs at the moment of speaking and often contains abbreviated forms, functional auxiliaries, various interjections, repetitions, etc. Compared to the logical structure of written speech, an oral message is a discourse with a linear structure. The organizational unit of written speech is a sentence, in oral speech both short and longer statements are present in a conversation. Spoken texts are often context-dependent and assume some common background knowledge. Spoken extracts are harder for understanding as they can use in a variety of accents, from standard to non-standard, regional, non-native,



etc.

As mentioned above, there are two different types of approaches involved in spoken discourse comprehension: bottom-up and top-down. The bottom-up approach refers to the use of an input factor as the basis for text comprehension. Speech comprehension begins with the receiving input data, which is analyzed successively – sounds, words, sentences, and texts until the content meaning becomes clear for the listener. In this mode, understanding is seen as a process of decoding (De Gelder, 2000). A top-down approach to listening involves the analysis of text into smaller structures (sentences, words, sounds).

The knowledge of lexical and grammar units is important as it provides the basis for the bottom-up approach to listening. The input is scanned by the learner for familiar words, and grammar constructions to develop relationships between sentence elements. Students need to have vast vocabulary storage and good knowledge of sentence structure for processing texts from the bottom up. The exercises at this stage should help the students to remember the input at listening, recognize the words and sentences, identify the keywords and discourse changes, and to draw a parallel with grammatical relationships between key elements in sentences, paying attention to the stress and intonation, which determine the functions of the word and sentence. Traditional listening activities are aimed at bottom-up processing of text: dictation, after-text multiple-choice questions or tests, and other exercises requiring detailed recognition of input data (De Gelder, 2000).

The top-down approach to teaching listening applies the students' background knowledge to understand the meaning of the listened text. The upward process works from language to meaning, the downward process is from meaning to language. By applying prior knowledge and experience to a specific statement on a specific topic, listening comprehension can be a *top-down* process. Factual discourse is used to confirm made predictions and fill in details at understanding the aural message (De Gelder, 2000).

The exercises for top-down listening should develop an ability to use keywords for building a whole discourse, analyze the general situation, define the participants' role and goals, identify the cause and effect, note minor details, etc.

The following exercises develop top-down listening skills: students try to predict the content by asking questions, which answers they expect to hear; create a list of subjects or concepts that they already know about the topic, and about what they would like to learn more, then listen to the text and compare; read the words of one





interlocutor and predict the part of another speaker, then listen and compare; read a list of keywords/statements that will be covered in the text and then listen to see which ones have been mentioned; listen a part of the story, try to finish it, then listen and compare the endings; read the headlines and guess what happened, then listen and compare (Collins, 2022).

Teaching listening typically includes a sequence of pre-listening, listening, and post-listening exercises and contains bottom-up and bottom-up listening activities. The pre-listening tasks prepare learners for both top-down and bottom-up listening including activities for prior experience activation, content prediction, and key vocabulary analysis. During listening, the students focus on the message understanding and conduct exercises requiring selective listening. Post-listening involves checking comprehension by asking for learners' opinions on the topic of the text. It can also include bottom-up listening including studying the details or focusing on elements difficult for hearing. The analysis of the text parts can help learners to recognize language structures of spoken discourse that they were not able to recognize.

Successful listening training depends on the strategies used, which help the students concentrate on the content and teach them how to listen. The strategies target to involve the students in the listening process.

Linguists distinguish cognitive and metacognitive strategies. Cognitive is based on the process of storing and retrieving data from long-term memory. Cognitive strategies include the perception of linguistic and non-linguistic factual information with further memorization and storage in long-term memory. Metacognitive strategies are conscious or unconscious mental executive functions of cognitive strategies management. Metacognitive strategies involve the situation assessment before listening, monitoring the effectiveness of listening in the process and after completing the task and conducting subsequent self-control through testing the effectiveness of the used language tools (Rukthong, 2020).

There are various schemes for incorporating listening strategies into practical lessons. The most common in teaching listening consists of the following stages:

- Preliminary listening (pre-listening), when the students predict what they might hear.
- First listening, when the students check what they have predicted correctly make notes of new information they hear.
- Discussion, when the students compare what they have understood and identify those parts of the text they did not hear or understand marking those parts that require



attention in the second hearing.

- Second listening is when the students listen to the parts they have not understood or heard before and take notes on any new information they hear.

- Post-listening discussion, when the teacher makes sure that the students have understood the text correctly.

Listening is regarded by scientists as a passive type of speech activity. However, listening requires active cognitive perception, speech recognition, and comprehension.

#### **4.4. Difficulties of teaching listening**

Teaching listening is provided with various exercises, but they are ineffective without the psychological and linguistic understanding of the listening specifics. To some extent, listening is still seen as a by-product of speaking. It is closely related to speaking and to a certain extent dependent on speech patterns and more developed speaking skills help to understand the listened text. However, this does not mean that learning to speak means learning to listen. The assumption that teaching oral speech develops listening skills simultaneously is incorrect.

In listening, intonation is considered to be the most informative feature, since it helps the listener to segment speech into syntactic blocks, understand the connection between the utterance's parts, and, consequently, comprehend the content. The intonation reveals communicative, syntactic, logical, and other functions. The communicative type of message is recognized (narration, question, exclamation, motivating, etc.) and is correctly correlated with the intonational variant. Phonemic recognition comes next and is necessary for acoustic-articulatory image creation. Listening is a complex process of selecting informative patterns and making associations dependent on the previous language experience. For successful foreign language listening, the students must have a developed active and passive vocabulary, acquired mainly through reading. However, a visual image of a word imprinted in the memory is not always easily associated with an auditory (Lervåg, 2018).

At the phonetic level, listening is determined by the knowledge of the probabilistic sound sequence, which is not clear as in visual perception, and the most obvious only under stress. Short sounds are more informative than long ones and cause less difficulty in recognition.

Vocabulary recognition depends on the knowledge of the semantic and syntactic





build of speech units and on the ability to correlate the word meanings with the context.

Text prediction is also complex. The utterance's meaning is the easiest to predict as the structure and content are combined in a unit. However, the linguistic form is unreliable in supporting semantic prediction, although the listener's attention is usually concentrated on it.

The main factors hindering audio perception are the inability to focus attention on the general content and misunderstanding of important details; constant switch of attention from the linguistic form to the content. (Gavrylenko, 2015). The second factor is the most typical for listening to complex or emotional texts. The errors occur when semantic prediction is based on imagination and speculation of incomprehensible facts without taking into account the linguistic form of the text.

In real-life communication, we have to listen a lot, and the accuracy of the received information determines our subsequent actions. Teaching students to understand aural speech is one of the most important goals of education (Onishchuk, 2020). In situations of real communication, we are faced with listening as a completely independent type of speech activity. We listen to various announcements, news, instructions, lectures, stories, phone conversations, etc. Listening is a complex receptive mental-mnemonic activity associated with the perception, comprehension, and active processing of information (Kharzhevskaya, 2019). Listening is closely related to other types of speech activities. Both listening and reading are perceptive skills. Listening and speaking represent oral speech skills (Cummins, 2015). Listening and speaking realize oral direct communication (although information can be transmitted by technical devices). Listening is just like reading a reactive type of speech activity.

The result of listening should be a conclusion and an understanding of the perceived semantic content. The response to listening is a verbal or non-verbal reaction (Ratnam, 2019). Classroom listening may not always correspond to listening comprehension in real life. However, in teaching listening and preparing them for speech perception outside the classroom, it is necessary to take into account the features of real-life listening. Most listening texts should be based on natural spontaneous speech, which can have visual support and be repeated if necessary. According to some researchers, second listening improves understanding by 16.5%, the third – by 12.5% (compared to the second), and all subsequent repetitions do not provide a significant improvement in understanding. (Gan, 2020, p. 9703).

The practical experience of foreign language teaching proves that listening is one of the most difficult types of speech activity as it is presented only once or sometimes



twice. Therefore, the students need to learn to understand the text from the first presentation, since in real situations of communication, repetitions are often excluded. Besides, listeners are not able to change anything, and cannot adapt the speech to their level of understanding. Each person has his style, too scientific or too emotional, full of idioms and figurative expressions. There are also difficulties caused by the listening conditions (external noise, interferences, poor acoustics, quality of recording and equipment used in the classroom, etc.); by individual characteristics (speaker's gender, ages; diction, timbre, tempo, pauses, possible articulation disorder; dialect, etc.). In teaching communication practice listening is linked with speaking, when partners constantly change roles, acting either as a speaker or as a listener.

Examples of exercises, which help with the difficulties in listening, are:

- Listen to the words and raise your hand when you hear a word with the sound;
- Listen to the sentences and raise your hand when you hear an interrogative (affirmative, negative) sentence;
- Listen to a series of sounds, and write down the given sounds;
- Mark the words you heard in the order in which they sound;
- Find and highlight the heard word in the row of written words;
- Determine the number of words in the sentences you listened to;
- Mark pauses in the sounding text;
- Determine the type of sentence;
- Listen to the text and note how many interrogative, affirmative, and negative sentences you heard.

#### **4.5. Communicative approach in teaching listening**

Nowadays, intercultural communication dialogue between representatives of different countries has particular importance. Each participant should be able to formulate their thoughts in the language of communication, as well as to perceive and correctly interpret written and spoken language.

The communicative approach is the main and the most successful way of teaching a foreign language. Communicative competence teaching is developing practical interaction between grammatical knowledge and sociolinguistic knowledge of the rules of language use (Whyte, 2019, p. 6). Researchers distinguish linguistic, sociolinguistic, sociocultural, strategic, discursive, and social competencies.



Teaching listening is dependent on phonetic, lexical, and grammatical skills, which are important conditions for the productive perception of foreign speech. Among phonetic skills, students should differentiate similar-sounding words and phrases, compound words and phrases based on stress, determine the number of stressed syllables in a sentence, etc. (Kharzhevskaya, 2019). Equally important is the consideration of the emotional state of the speaker.

Lexical skills in teaching listening include the perception and recognition of individual lexical units, homonyms, homophones, homographs, paronyms, antonyms, synonyms, etc. Synonyms develop expression variety and accuracy of thoughts permitting to avoid of repetition and monotony. The knowledge of word-building elements is also important for successful listening.

Grammatical skills involving the recognition of various grammar constructions, an ability to distinguish between them and correlate with meaning, the knowledge of parts of speech, and their differentiation and clarification of sentence members are necessary for productive listening.

Various technologies are used for the development of listening skills. One of the most effective is the audiolingual method, which instead of focusing on the acquisition of vocabulary through learning its use in different situations (Movva, 2022). Listening assignments may use a different material or be based on the same text, but with increasing complexity. The role of language in perception is striking because of the opposing tendencies hidden in the nature of visual perception and language (Handal, 1999).

Language communication is a complex phenomenon of information exchange through a universal system of sound or graphic signs called language (Gale, 2022, p. 479). In the process of communication, interlocutors transmit or receive a language message. Listening to authentic material is valuable for educational, practical, and professional goals and supports the process of communication developing sociolinguistic and sociocultural competence. Culture is finally a collective experience (Gale, 2022, p. 484). The perception of foreign speech provides an opportunity to get acquainted with and consolidate new vocabulary. Socio-cultural knowledge is important for interpersonal communication and listening to authentic texts helps to acquire knowledge about the lifestyle, national mentality, and cultural characteristics.

Listening is significant as the basis for productive competencies development (speaking and writing). The perception of foreign language determines the strategy of communication as the selection of language means observed in listening helps students



to develop their speech functions. Listening assists greatly in building speech patterns for linguistic, sociolinguistic, socio-cultural, strategic, discursive, and social competencies.

#### **4.6. Stages of teaching listening**

In listening methodology, a significant scientific problem could be distinguished: underestimation of training listening as a unique skill with its psychological and linguistic difficulties. Psychologists emphasize that text identification in listening is an unconscious action, which result could be observed only at the stage of image formation (Grosjean, 2018). At higher levels of language acquisition, the identification process is simultaneous but if the audio signs are not enough for comprehension, the identification does not take place or is erroneous.

Simultaneous recognition prevails in real-life linguistic communication, although elements of succession are included. The success of listening depends on the comprehension type: indirect (discursive) or direct. In the process of perception, the listener converts sound into images and lexical units employing a motor (speech-motor) analyzer (Grosjean, 2018).

Listening is a complex process of selecting information from some possible ones and depends on the listener's associative ties established as a result of language experience. Some of these ties are strong and are highly likely to appear. At the same time, inhibition of non-essential features not related to the context might happen and hinder listening comprehension.

In determining the audio text level, we should take into account the method of the main idea conveying (inductive or deductive) and the form of presentation (audio or audio-visual). Similarly, the text should be relevant to a particular style and genre, and the type of communication. Audio texts can be ranked according to the level of difficulty:

- Easy audio texts include educational adapted or simple dialogues/monologues of popular literary, scientific, or art styles, short messages, and narrative texts with a simple sequential presentation. The main idea is expressed explicitly at the beginning of the text, the grammar is well-known; only 2-3% of unfamiliar words, which meaning can be easily guessed; the structure is simple.

- Medium audio texts include authentic and adapted texts of popular literary,



scientific, or artistic style, usually conversation, message, description, and polylogues with a limited number of storylines with a consistent and simple presentation. The main idea is expressed at the beginning or in the middle of the text. Grammatical rules should be familiar; vocabulary might comprise 2–3% of unknown items that are not keywords.

- Difficult level includes authentic texts from media, popular science, and artistic style like conversations, interviews, reportages, descriptions, and polylogues with a variety of storylines. The main idea is expressed at the end of the text or is not explicit. The language might comprise unfamiliar grammatical structures and 4–5% of unfamiliar words.

Teaching listening is based on a specially selected audio text and consists of pre-listening, text listening, and post-listening stages.

The main goal of the pre-listening stage is to remove the language difficulties and prepare the students for further listening. All activities and text-based training exercises are aimed to develop contextual guessing or teaching probabilistic prediction.

The pre-listening can include pre-text questions, asking students to guess what the text will be about based on the title (if any), keywords, or illustration. The pre-listening stage is very important for medium or high levels of difficulty. The pre-text exercises help students to hear an audio text better and to concentrate on relevant information to the forthcoming listening.

The listening stage includes listening to the audio text once or twice. In the case of the second listening, it is important to set new tasks for students each time, for example, for the first listening to select a title for a paragraph, for the second – to answer the questions given at the pre-text stage or fill in some table.

The post-listening stage includes control and assessment of the listened text comprehension, which might be fragmentary, general, detailed, or evaluative (Al Musalli, 2001, p. 1502). Post-listening exercises are selected depending on the goal set before listening. The main types of exercises for the post-listening stage are answering general questions; multiple-choice tests; content transformation; facts listing and ordering; the text type and the topic determination; matching the title/illustration with the text content.

For the goal of general understanding, the exercises include questions for general and detailed understanding; drawing up a plan, a map, diagrams, and tables; retelling in the target language based on an illustration, diagram, keywords, or plan; assessment of the characters' actions; filling in gaps.

The level of comprehension depends on the development of language skills and



experience. The follow-up exercises can be writing a review / evaluating the text you have listened to; annotation/abstract writing; comparison of different points of view; evaluation of judgments objectivity; substantiation of agreement/disagreement with the author's conclusions; interviews, conversations, and discussions.

#### **4.7. An integrated approach to teaching listening**

The problem of listening incomprehension depends on the level of the student's training in how to listen to foreign language discourse. Often university students are given audio recordings to listen to, and then the teacher tests their understanding of the content. Thus, teachers often focus the student's attention on the result, but not on the audio text perception, i.e. the process itself is overlooked. Yet, by paying attention to some of the most common phonological features of spoken language, students can better understand the content of the audio text.

For successful teaching, firstly, we should clarify the meaning of the concept of *listening*; secondly, consider the context of speech perception and comprehension, and outline the approaches to teaching listening; thirdly, define the concept of coherent speech and weak forms of functional words, sound cohesions, assimilation and rhythm; and finally, to give the students examples of training videos, songs, authentic audio materials.

In recent years, listening skills have received more attention due to the increasing number of various listening comprehension tests (international, independent external evaluation (ZNO), entrance master's exams (EVI). Also, this interest is dictated by the increasing availability and popularity of multimedia technologies, which allow the creation of a more realistic picture of the language and culture being studied, including linguistic and paralinguistic features (body language and gestures) helping students to understand the meaning.

In scientific works, the emphasis is made on the creation of effective methods for developing aural speech understanding and overcoming difficulties in the perception of foreign language statements (Brown, 1950; Mei, 2018). One of the most popular approaches in teaching listening is metacognitive, which trains students to manage their cognitive strategies for operating their speech perception skills and recognizing weaknesses, and evaluating achievements.

The researchers' interest lies in the field of understanding the nature of aural





speech perception. They are based on research in psycholinguistics, semantics, pragmatics, discourse analysis, and cognitive studies (Freeman, 1991). Taking into account the fact that listening comprehension is a complex step-by-step process that involves various types of information processing, we consider two main models of teaching listening: bottom-up and top-down models. The first allows students to recognize the lexical and pronunciation speech characteristics for audio text comprehension. Students focus on linguistic forms at the level of words and sentences to grasp the meaning of the statement. The second model is based on the listeners' existing knowledge of the context and experience, acquaintance with the interlocutor, and/or situation (Freeman, 1991, p. 41–46). Studies have shown that effective listening comprehension is a balance between the two described models (Freeman, 1991). At the same time, this balance can shift in favor of one of the models depending on the task and situation, for example, the audio text characteristics, and the speaker/listener factors.

It is generally accepted that teachers more often use a top-down model in teaching listening, using the tasks of content prediction, questions to check understanding, and listening for details. And in practical teaching exercises on pronunciation and phonological characteristics, which permit students to pay attention to the linguistic design of the audio text, are often overlooked.

Listening is a process demanding the teacher to select the audio materials, and anticipate possible problems to help students to identify coherent speech regardless of the student's language level and experience in listening.

J. Brown and D. Crowther referred to the coherent speech as a continuous sequence of spoken language, ordinary utterances/conversation to specific phonemes considered separately (Call, 1985). Common features of coherent speech include:

- weak forms of function words (auxiliary verbs, conjunctions, prepositions, articles, pronouns). In spoken English, we hear weak forms more often than stress. The weak forms are more difficult to recognize, they are shorter, faster, and not very clear, some sounds disappear completely, and the vowels in these words are often replaced by a short vowel "shwa" [ə].

- sound adhesion. In spoken language, words are interconnected. If a word ends with a consonant sound, and the next begins with a vowel, we hear a consonant sound at the beginning of the second word, e.g., drop it /dro-pit/.

- intrusion or phoneme insertion in a word or between words, e.g., in American English, the sound [t] between [l] and [s] (false - [fə:lts]).



- elision or dropping of a vowel or consonant phoneme, either in the middle or at a word edge. e.g., dropping of a weak vowel after p, t, k in words like potato, where the vowel in the first syllable may not be pronounced ([p<sup>h</sup>teɪtəʊ]) (Call, 1985).

- assimilation or likening of one phoneme to another, e.g., [t] → [k] ([t] at the end of the word becomes [k] and the next word starts with the sounds [g] or [k] – white gloves [waɪk glʌvz], smart kid [smɑ:k kɪd]).

- rhythm or shifting of stressed and unstressed syllables, which gives a certain rhythm to speech and plays an important role in communication.

Pronunciation specialist D. Gilbert compares the rhythm and melody of speech with road signs, which help the listener interpret the speaker's intentions (Goh, 2021). The English language is isochronous, as stressed syllables are repeated at regular intervals, regardless of the number of intermediate unstressed ones. As a rule, nouns, semantic verbs, adjectives, and adverbs are stressed and articles, conjunctions, prepositions, pronouns, and auxiliary verbs are unstressed. However, any word or syllable can be emphasized if the meaning requires it, for example, for contrast or correction. Unstressed syllables are pronounced faster to fit them into the intonational pattern or the time to pronounce a statement depends on the stresses, and not on the number of syllables. To maintain regular stress at regular intervals, the speaker has to keep the length of the syllable uneven.

Coherent English speech consists of many elements, which the students need to be aware of, especially of the changes occurring in fast, natural speech. So, the teacher should organize the educational process for students to help them with understanding coherent speech.

A. Rukthong and T. Brunfaut suggest dividing the tasks into the recognition and reproduction of the audio texts (Rukthong, 2020). Recognition at the initial stages of weak forms learning includes an unstressed phoneme [ə], various prepositions (to, from, of), auxiliary verbs, and the combination of sounds, as, for example, in the expression *a lot of* [ə lɒ təv]. Once students get used to the weaker forms, the teacher can show students how the most common phrases are pronounced.

#### 4.8. Teaching listening at non-linguistic universities

Students in non-linguistic specialties should be taught listening as a separate skill and as a part of professional communication including such aspects as pronunciation,



internal articulation, and receptive lexical and grammatical skills.

Unlike real-life communication, an audio file in the classroom cannot be adapted to the student's level of comprehension or be clarified through questioning. In foreign language listening, some external difficulties might occur (noise, interferences, poor acoustics, individual pronunciation, tempo, pauses, articulation disorders, a large amount of unfamiliar vocabulary, idiomatic and colloquial expressions, special terms, abbreviations, etc.) (Rukthong, 2020, p.31-40).

The process of teaching listening is a multidimensional activity, and success depends not only on lexical and grammatical knowledge, but also on the development of the students' speaking skills, memory, motivation, and extralinguistic knowledge (Quasthoff, 2011, p.9).

Since listening is a complex mental-mnemonic activity of perception, comprehension, and processing of information, teaching it is a complex sequential process. In a non-linguistic university, the process of teaching foreign language listening involves several stages depending on the specialty: practical foreign language course, foreign language for special/professional purposes, practical foreign language course for business communication, and practical foreign language course for academic communication.

For non-linguistic students, the development of language skills takes place in the cooperation of foreign language teachers and teachers of professional disciplines.

Each stage of foreign language teaching in a non-linguistic university covers a special field of communication. Discipline "Practical foreign language course" teaches foreign language communication in various social, educational, and academic situations; the discipline "Foreign Language for Special/Professional Purposes" develops foreign language communicative competence at a B2 level, which involves effective communication in typical educational and professional situations; discipline "Practical foreign language course for business communication" trains professional foreign language competences in listening, speaking, reading, writing at B2+ level, linguistic and socio-cultural, educational, strategic and pragmatic competences; discipline "Practical foreign language course for academic communication" covers academic foreign language competences necessary for effective communication in the academic scientific field. The goals of these disciplines involve the improvement of listening, speaking, reading professional scientific literature, knowledge of scientific vocabulary, and grammatical resources necessary for foreign language communication.



At the initial stage in the block "Practical foreign language course", students should be able to understand the main content of short simple audio texts like advertisements, booklets, reference books, popular scientific information with tables, charts, graphs, maps, hypertexts, etc., texts about educational institutions, professional training programs, student exchange programs, language schools, etc.

At this stage, students are trained to listen to the basic information, but the next block "Foreign Language for Special/Professional Purposes" assumes an increased level of oral speech comprehension. Thus, the first block has different levels of material complexity in the educational, socio-cultural, and professional spheres of communication.

The next block "Foreign Language for Special/Professional Purposes" involves listening to more complex content: scientific and technological texts about the history of science, nature, prospects of scientific and industrial development, and interviews with specialists and scientists of the student's professional field. However, this stage also involves further development of the material studied in the previous stages. The improvement of listening skills on the previously identified topics continues in the next blocks "Practical foreign language course for business communication" and "Practical foreign language course for academic communication". Successful listening requires consistent work with the material, which includes several stages:

- preparatory stage;
- direct listening;
- practical implementation.

The purpose of the preparatory stage is the acquisition of the lexical and grammatical material from the audio text at the pre-listening stage. This stage includes familiarization and practical use of new vocabulary based on the grammatical material already covered. This is followed by the familiarization of new grammatical structures (Grosjean, 2018).

Direct listening can be one-time or the recording can be presented two or more times. In real life, the speaker will not repeat information twice, so the students should be taught to listen once for general comprehension.

During practical implementation, students complete true/false statement tasks, answer questions, draw a plan, or fill in forms and tables. At more advanced levels, exercises include discussions on the topic they heard. At the stage "Foreign Language for Special/Professional Purposes", it is advisable to introduce listening to specialized texts for the development of professional vocabulary. Repeated listening to the text



promotes a sufficient level of comprehension for further discussion in the professional sphere.

Despite the importance of teaching listening, in a limited number of hours for foreign language teaching, teachers at non-linguistic universities sometimes neglect this type of work in favor of developing other skills. However, listening can be not only part of the lesson but also an element of independent language training (Gavrylenko, 2015; Hasan, 2019). Students can be given resources for listening at home with subsequent reviewing in the lesson. The forms of control can vary from simple questions to mini-essays, topic presentations, and discussions. Such tasks improve language skills and motivate for further foreign language studying. Listening to foreign language texts is sometimes hard due to the negative personal attitude of some students to this type of activity. Such attitude usually depends on the level of proficiency in oral and written speech, vocabulary and grammar knowledge, and the development of foreign speech perception.

In reducing these difficulties, the teachers should carefully select the materials for listening paying attention to a motivational component. Small specific videos have proven themselves very well as visualization facilitates the language material perception and helps to overcome misunderstandings, and increases motivation. On the Internet today there is a large selection of high-quality authentic materials.

From the beginning of foreign language learning, students are involved in the process of listening as an integral part of oral communication. The first audio texts for the first-year students should be small and with a minimum of unfamiliar vocabulary. Small professional texts, fragments of lectures, or scientific articles can serve as teaching materials. Presenting an audio text to students, the teacher should pay attention to the number of new language structures and the rate of speech. The first-year student's ability to perceive new information is very limited, so the speed of presentation and the amount of information should not exceed their capabilities, i.e. the audio text should contain the necessary information and nothing excessive that is not interesting or useful at the moment. Psycholinguists believe that aural speech understanding is closely related to the ability to isolate the main information received from the speaker and reformulate it in a concise form.

At the initial stage of language learning, the main source for students of a spoken foreign language is the teacher and they get used to her manner of speaking, style, and articulation, and do not always know how to understand the speech of other people. Therefore, students should be specially taught to listen to the other speakers, where the



technical teaching aids and audio recordings of lectures are in help the teacher. Eliminating language difficulties in listening is a necessary condition for learning. Listening may be hampered by the lack of feedback as the listener is not in direct contact with the speaker and can neither stop the speaker nor ask him a question to clarify any obscure fragment. In turn, the speaker cannot take into account the listener's reaction and speak more slowly, or paraphrase what was said, making his speech more accessible.

The listener does not see the interlocutor, and all information comes only by ear. Visual support is not always an indispensable condition for listening but always has a positive effect since the gestures and facial expressions of the speaker often stimulate linguistic guessing. Recorded audio information is a one-time presentation of speech, which requires the listener to comprehend instantly the incoming data.

Successful comprehension of audio text depends on the amount of new information, grammatical and syntactic complexity, as well as on the tempo of speech. The offered audio material should be understandable for students at the grammatical and lexical levels and also the speech rate should be accessible for the language level. The speech rate is often quite high and does not always coincide with the rate of speech of the native language, so the listener does not have enough time to think and a fast rate prevents them from understanding the general meaning. However, at a slow rate of speech, students do not always correctly recognize the sentences. The optimal rate of speech is considered to be the one that is close to the personal students' rate.

In practical lessons, it is necessary to offer students audio materials as often as possible. At the initial listening stage, short texts are used, with a small amount of new information, and the speech rate is 20% lower than average. As students develop listening skills, the text length increases and contains more information, and the speech rate gradually accelerates. The success of listening also depends on the text content, which is easier to understand if students have additional background knowledge about the topic.

Audio text introduction is preceded by a set of lexical and grammatical exercises aimed at overcoming language difficulties. Pre-text tasks involve introducing students to the topic in the form of a short message, visual material, or a dialogue. The teacher can use keywords, which express the main idea of the text and help students to explain these words through context analysis or linguistic guess. Even if the written words were explained and practiced in expressions and sentences, they are not always recognized in the audio text. The keywords should be neither new nor complex for articulation.





Pre-text tasks can consist of questions and micro texts and should help the students to understand the content of the audio text.

The main task of post-text tasks is to check to understand and they can include questions about the content of the audio text, the selection of correct statements, multiple choice exercises tests, etc. For checking vocabulary comprehension students can continue or start sentences including new words. After listening, students should be able to highlight the main and secondary information and give detailed answers based on the text content.

At the intermediate stage, the criteria for the listening text change: the speech rate and the size of texts increase, and the grammar and vocabulary become more complicated. In the process of learning listening comprehension, students develop skills and abilities of the receptive type of communication.

In the process of monitoring listening comprehension, the teacher accesses how the students understand aural speech. Different forms of control are not always objective as due to insufficient development of foreign language speaking skills a student might understand aural text content but cannot adequately convey it. In this case, translation into the native language can help, but this method of monitoring listening is not very effective for speech development. All these factors are conditions that make listening easier or harder and the criteria for assessing listening skills should change accordingly (Kang, 2019, p.60-69).

Listening should be considered a component of meta-subject competence for students of non-linguistic universities. Studying the problems of teaching professional listening, teachers note that in situations of real professional communication, we should develop the ability to use both verbal and non-verbal means of communication (Gilbert, 2018).

The methodology of teaching listening to non-linguistic students combines several components. The first is a range of pre-listening and post-listening communicative exercises as the basis for the development of listening skills. These exercises are aimed at the training of perceptive abilities and properly organized assignments for teaching listening communicatively are designed to contribute to the effective preparation for situations of real communication.

The second component of teaching listening is the student's independent work for consolidating the skills developed in the lessons, which is watching audio and video materials (documentaries, thematic lectures, news programs) for at least an hour per week and reporting the results to the teacher. Students are provided with a link to the



video material and after watching they write a summary, complete a questionnaire, or do some other task. Independent listening is carried out in comfortable conditions and the students can listen to the information several times, and use dictionaries and other reference materials. The teacher accesses their work, comments, and returns them to the student for further analysis and correction.

The third component is listening to lectures or their parts by teachers from foreign universities as a source of real academic communication. This is a real-life type of listening when students need to understand a single presentation in the conditions of limited time and without any supporting original text or additional reference resources. The topics of the lectures should be related to the students' specialties. The main goal of such listening tasks is to understand the aural text of increased complexity as accurately as possible and then present it orally or in written form.

These components include classroom exercises, independent work, and listening to authentic lectures in conditions of real communication, which contribute to the student's involvement in their professional and academic communication and support interest in foreign language learning. However, teaching listening should begin with planning and material selection taking into account language and content accessibility.

Nowadays, in higher education, due to a variety of audio and video materials, the teacher can turn listening into motivating and creative activities, which involve self-development, self-education, and professional growth. For developing pronunciation the teacher can after introducing new vocabulary, suggest writing a quick dictation, when she pronounces words or expressions with a natural speed and students write them down, or partial dictation, when the students write keywords and then recreate the original text-based on them. Such dictations involve students listening to the teacher or recording and, as a rule, the text is small. Also good for developing pronunciation are the exercises on observing word chains in the flow of speech and distinguishing them. The students of pre-intermediate level and above can analyze songs or poems. They are given the lyrics/poem with gaps, and while listening, they determine the spelling of the missing words.

The other types of activities effective for developing pronunciation are the exercises on repetition of words or expressions, exercises for practicing rhythm like finger snapping, tapping, clapping, head nodding, reading short sentences with stressed words and then adding other unstressed words, working with jazz chants and songs for the development of rhythm.

The students of non-linguistic universities cannot always rely on their knowledge



for audio text comprehension and they need a solid background, which J. Reimer, J. Brown, and T. Lorschbach, call a *phonological code*, or students' awareness of the phonological features important condition for coherent foreign speech understanding (Reimer, 2001). It is the teacher who should offer the tasks that contribute to the recognition and reproduction of various sound forms. Training phonological system recognition begins at the initial stage of learning and gets more complicated with every language level. These tasks can significantly increase the students' perceive abilities and develop confidence in foreign language listening.

Since listening and speaking are two interrelated skills, success in foreign language communication is generally dependent on their development. Good listening skills are important for dialogical communication as they determine the response reaction, but also for preparing monologue statements. An ability to interpret correctly factual and linguistic information from authentic lectures and speeches can help future engineering specialists to choose the right language tools for their oral performances. In the system of following tasks, we consider the listening skill as a goal and as a means of learning, which serves as the basis for oral speech development.

Listening as a type of speech activity often causes difficulties for students, as it requires a simultaneous application of a complex set of mechanisms. Among the main cognitive operations that ensure the integral comprehension of aural text content, the following activities can be distinguished:

- attention focusing on perception and comprehension of foreign speech;
- comprehension or a mechanism for recreating semantic ties in spoken language.

Comprehension is impossible without the segmentation of individual units, and comparison of sound and content.

– internal utterance or transformation of the sound into articulation.

- probabilistic prediction of statements based on the assumption of a sentence or expression beginning. Linguistic or semantic prediction is based on knowledge of grammatical structures and lexical combinations.

- memorization or activation of short-term and operative memory.

The mechanism of long-term memory is involved in listening, as correct decoding of the utterance requires the actualization of the language stored in memory (Cauldwell, 2018; Sachs, 1974).

The system of tasks aimed at the development of all cognitive operations mentioned above includes a system of exercises divided into three stages: before listening, during listening, and after listening. Tasks at the pre-listening stage are



mainly aimed at developing linguistic and semantic guesses and decreasing linguistic and psychological barriers. For example, in pre-listening on the topic 'Networks', students are asked to analyze and describe a graphical diagram of a local network device using a list of keywords from the aural text.

Another example of a preparatory exercise is watching a video on the topic 'Network topology' without sound with support on a graphical diagram of network topologies and basic expressions, and then students had to recreate the audio text. As a possible continuation, one of the students watches the first part of the video with the audio track on, and the second student watches the second part of the recording. The students then exchanged information checking their predictions.

Another task at the pre-listening stage suggests giving students the sentences from an audio recording with gaps, which students had to fill in using the correct form of the original word in brackets or adding the necessary preposition. Then students listen to the audio recording and check the answers.

At the stage of listening the tasks are aimed at developing the ability for speech flow segmentation, internal pronunciation, and comprehension of foreign language speakers. One of the tasks here is to arrange semantic pauses and logical stresses in the script while listening to an audio recording. Also, students can note the keywords and expressions reflecting the main idea of the aural text. At the next stage, students are asked to retell the text using this reference. Or the students are given a list of words and expressions, which they use to determine the context of the audio recording.

At the last post-listening stage, the emphasis is on the language material activation, which was presented in the audio text, and the practice of lexical units, grammatical structures, and factual information heard. Students are asked to prepare a dialogue or presentation based on audio materials, for example, to discuss the advantages and disadvantages of different types of network topologies.

#### **4.9. Computer technologies in teaching listening**

Due to the development of digital teaching aids, they can be employed in different educational situations. However, the teacher has to understand how these aids can be applied in education. The computer-based learning programs in foreign languages offered nowadays do not always meet the requirements of the university curriculum as they are mostly designed for individual or independent foreign language studies.



The classification of multimedia educational technologies on different devices is based on various criteria such as interactivity, instant feedback, the dynamic nature of the educational information, visibility, and an individual approach. Traditionally, the researchers single out linear and non-linear multimedia technologies (Harker, 2020).

Taking into account the resources and their final product we can single out the following types:

- Programs for creating multimedia presentations (Microsoft Office PowerPoint, SmartDraw, Prezi, Kingsoft WPS Office, ProShow Producer, etc.).

All such programs have their advantages and disadvantages, and different levels of complexity. They provide a different number of presentation templates, a set of visual effects, and the possibility of linear or non-linear communication.

- Electronic dictionaries (Cambridge Dictionary, Merriam-Webster Dictionary, Macmillan Dictionary, Oxford Learner's Dictionaries, Dictionary.com, Collins Dictionary, and others).

- Educational programs and applications based on video or audio material analysis (Classtime, DuoLingo, Busuu, and others).

- Platforms for creating tests (Kahoot, Easy Test Maker, Classtime, and others).

- Online services for creating didactic games and exercises (Quizlet, Flippit, Factile, and others).

Among traditional computer technologies in language teaching, there are videoconferencing, chats, newsgroups, blogs, concordances, RSS, Wiki, group work tools, bots, virtual conversation programs, and other services that help to store and exchange texts, photos, videos, which contribute to the development of e-learning. As a result, the educational environment also changed and requires new approaches to the educational process.

Listening, like speaking, provides the possibility of foreign language communication and requires regular practice. The Internet resources in foreign languages are effective and interesting for students, are easy to use, and include different types of linguistic tasks. Currently, the teacher has almost unlimited resources of audio and video materials at her disposal as well as all kinds of manuals for foreign language learners and educational audio courses. However, one of the most important problems in teaching listening is building a system of exercises aimed at developing listening skills.

The sequence of the listening tasks can be changed depending on the training stage, the student's preparation level, the classroom, and self-studying where the



authentic listening texts help to increase the effectiveness of the learning process. The Internet technologies used in teaching listening provide an opportunity to improve the process of foreign language teaching as they increase motivation, develop the skills of authentic text comprehension, and conduct research work.

Computer technologies for practicing listening skills combine computer linguistics with Internet and teaching technologies. The students are involved in a situation similar to foreign language communication. In modern applications, it is possible to save achievements and compare them with other users. Thanks to computer technologies, traditional learning is supplemented by electronic teaching platforms and aids, which play an important role in teaching foreign languages in real-life situations and help to communicate with other interlocutors around the world in real time. Computer technologies in teaching listening are convenient and effective but require the student's discipline and self-organization, learning time planning so that everyday life and duties do not interfere with language learning.

Modern multimedia and network technologies support teachers with the implementation of computer media (texts, graphics, audio files, animations, video clips, etc.). Due to new technologies, all teaching materials are interconnected: texts are usually supported by audio samples, videos, pictures, etc. Thus, the effectiveness of computer learning increases.

The use of computer technologies for developing listening skills is especially relevant in the context of distance learning. Despite the distance format of studying, the teacher needs to follow general educational goals and create conditions for training of all skills, including listening. For this the teacher has two options for organizing training listening:

1. Collect audio material on Internet sites and make it available to students via an Internet link. The students are given the option to decide how many times to listen to the audio material, and if the resource is equipped with mode functions, then the student can also choose the tempo.

2. The teacher plays audio material on her device in a video conference with students.

The first option is considered the most effective, because the student understands the text better, while listening during a video conference the perception might be hindered by some interference.

There is one more option for organizing listening training: in case of the absence of necessary devices and equipment, the teacher can record some video material herself





using appropriate intonation and gestures to help students understand the text.

Computer technologies in teaching listening are much more effective than the reproduction of the material by the teacher since a reach choice of any individual pronunciation, voice timbre, pace, and speech peculiarities provide numerous available resources for the teacher. For overcoming difficulties in native speech understanding, the students should be trained to listen to their speech from the beginner's level. In addition to classroom work, the teacher can recommend students effective online platforms for self-study, which can be used for developing listening skills.

Modern challenges for education resulted in the rapid development of distance learning, which was possible due to modern computer technology. The main principle of distance learning is interactivity and technical means are intermediaries between the teacher and the student. They support interactive teaching and organize a specific infrastructure for education. The teacher chooses appropriate technologies and materials adapting them to the students' needs. The main characteristics of distance education include the following:

- interaction between teacher and student is technically mediated and the intermediary is a computer (or any other device with Internet access);
- this mediated process is planned and organized by the teacher;
- the student should be able to organize independent studying;
- the teacher should know distance learning specifics and be able to apply traditional and innovative teaching methods.

Teaching foreign languages has always been one of the most difficult in education.

Modern students belong to the so-called digital generation, who obtain knowledge differently. They get used to searching for informational resources themselves and know how to work independently, so the teacher practicing listening can reduce to a minimum the list of words given before listening; permit students to use smartphones and other gadgets for listening; employ real audio texts by the speakers from different parts of the world; vary the range and length of texts; use professional and academic texts; practice listening in every lesson; permit students to listen to the text independently.

For successful implementation of computer technologies in education the teacher needs practical skills in Internet use, knowledge of Microsoft Office, search for the necessary information, creating online bookmarks and links, working with large amounts of information, implementing computers and the Internet in the educational



process, use modern electronic tools, monitor the development of new technologies, etc.

For developing listening skills in professional communication, we use the interactive components of the open-source learning program Moodle, which permits teachers to create learning material on topics corresponding to working programs including interactive content and videos as a learning tool for practicing listening skills (Illa, 2020).

The built-in features of Moodle provide opportunities for interaction with students and to create of interactive content such as videos, question lists, drag and drop tasks, multiple choice questions, presentations, etc. Moodle platform also permits the teacher to evaluate the student's performance, saves time, and support student in developing their listening skills. The interactive components depend on the system of tasks, assigned to students together with audio/video materials and can include:

- gap filling with words or expressions in the before / while / after listening stage (Drag the words);
- choosing the correct statement (True or False questions);
- selecting the correct answer from the given options (Multiple Choice).

The platform provides the possibility of multiple repetitions of the audio text. The students can immediately see the results of their work as on the Moodle platform, there is an option to create a test for evaluating the results of listening, and tasks are checked automatically. This develops students' self-control and responsibility, and the teacher can significantly save time for other educational activities.

The most important advantage of using interactive platforms like Moodle is the edutainment or implementation of educational techniques during entertainment activities, which significantly increases learning and motivates students. Interactive materials include sound, colour, animation, and images, which help students to visualise and understand the learning material.

The possibility of creating a personalised educational environment is provided by the Google Classroom application, which is a cloud educational environment based on the concept of SaaS (Software as a Service), which provides the learning and educational management system, as well as the related software as a service. This is a free service for educational institutions that allows any user with a Google account to create their classroom. Google Classroom is a personal learning environment based on network technologies with features such advantages as accessibility, transparency, multiformat, personalized, and easily integrated into educational projects (Singh,



2020).

Google Classroom allows the teacher to create training courses in different disciplines, and levels of complexity, and divide course materials into topics. In teaching listening, the ability to post audio and video materials, links to Internet resources, and podcasts, is especially important. Google Classroom integration with Google Forms permits the creation of multiple assignments and tests and sets deadlines for them.

The listening materials based on Google Classroom are easily structured by modules and topics, which can include a complex of interrelated educational units aimed at the development of listening skills via different types of foreign language activities and different levels. Multi-level organization of the material permits to vary the exercise complexity (Okmawati, 2020).

The limited time in the lesson might hinder the development of auditory competence. However, the introduction of blended learning on the Google Classroom platform makes it possible to increase the amount of time devoted to listening, since listening tasks could be organized by topics, lexical and grammatical material and included in tasks for independent work. Also in Google Classroom, the teacher can easily give feedback or students test their results immediately after completing the task. The teacher can track who has completed the task and who has not yet begun, get a summary table of results, view general and individual statistics, and return the student his work for revision. The statistics help the teacher to analyse mistakes and plan further tasks accordingly. All course materials are structured and stored in folders automatically on Google Drive, which makes them available on any device.

Google Classroom permits the creation of a personal educational environment not only for the teacher but also for the students. The student gets the opportunity to complete tasks on any mobile device, including a smartphone, anywhere and at any time; work at his own pace and, if the task allows, do it an unlimited number of times, work on mistakes; track the results; communicate with the teacher and other course participants in different formats. The listening assignments in Google Classroom can include questions to check the student's progress (e.g., the student is asked how many times he had to listen to the audio text to complete the tasks, and estimate the time to complete the tasks).

Google Classroom platform helps the teacher to integrate listening tasks into teaching and significantly increase the amount of time devoted to the development of listening skill by organizing students' independent work on the platform (Syakur,



2020).

In teaching listening skills a good example of a combination of several resources is a TED talk, which includes a lot of videos on different topics with supporting materials. The purpose of the TED platform is not to teach English. It was created as a non-profit platform where people who have achieved recognition could speak on issues of interest, even if it not related to their professional activities. However, the lectures of various lengths (from three minutes to half an hour) and topics, as well as a script, and a material presentation make this site suitable for the development of a wide variety of learning resources.

For practising listening comprehension, the teacher can ask the students to listen to the lecture and answer the questions, fill in the missing words and expressions, mark the sentences as true (T) or false (F), etc. Based on TED lectures, the teacher can develop a whole lesson aimed at developing professional and general language competencies.

Recently the TED team offered teachers a new Ted-Ed platform, where the teacher can use already-made tasks based on a video lecture. They suggest three types of tasks: watch, think, dig deeper, and discuss. Firstly, students watch a video lecture with a hidden script. In the Think section, the lesson developer provides a test with different types of questions about the lecture (multiple-choice, true-false or open-ended questions are the most widely used). The performance is checked by the system or by the teacher (for open-ended questions) and the teacher can comment on the answers. The teacher also can highlight the fragment to which the question is related. This option is very convenient if the material is difficult for students. In the third stage, the teacher can apply different types of reading and writing tasks according to the topic of the lesson. Finally, it is possible to create a forum discussion. This option is very convenient for the organization of a free discussion to a free discussion on the given topic. The students express their opinion and respond to the remarks. The teacher can monitor the discussion at any time and take part in it. The teacher can also develop her grading system, for example, an independent comment is equal to two points, and the answer to the interlocutor's statement is one point (Purdy, 1997).

This educational platform is very promising for developing listening skills as the materials can be used in the lesson and for individual studying. The routine learning procedure of checking comprehension is switched into automatic mode.

However, the discussion option is available only for registered users and the discussion is a task on the Ed.Ted platform will differ significantly from the classroom



discussion. A combination of technologies can be a way out and routine activities better be carried out on the platform, while free communication tasks can be performed in the class, or as a chat on social networks or messengers.

A rich source of listening materials is the YouTube portal, which is the most popular video hosting service on the Internet and provides free video storage and demonstration services. YouTube users are allowed to upload their videos, they can also express their attitude and evaluate them, add to favourites and share them with friends. These opportunities provide possibilities for using videos in the lessons and independent language study.

On YouTube, we can find both educational videos (video lessons, lectures, seminars), and entertaining blogs, talk shows, and interviews, which can also be used as didactic material for foreign language teaching. YouTube and TED Talks are actively used by teachers and help to optimize the educational process.

One good method of teaching listening is podcasts. The term *podcasting* is a combination of the ideas of iPod and broadcasting and means the creating and distributing of sound and video files (podcasts) as radio and television shows on the Internet (Internet broadcasting). As a rule, podcasts have a certain topic and time of publication. A. Rahman describes a podcast as a specially prepared audio or video recording, which is available for listening/viewing on the World Wide Web and available for downloading on any electronic medium (Rahman, 2018).

A lot of researchers highlight various didactic properties of podcasting (Abdulrahman, 2018; Rahman, 2018) including mobility, accessibility, authenticity, relevance, interactivity, motivating potential, productivity and multi-functionality. Working with podcasts in teaching listening includes three traditional pre-listening, listening and post-listening stages.

Podcasts can be divided into

- audio (in the audio file format);
- video (in the video file format);
- screencasts (in the video file format with a superimposed audio track);
- personal podcasts distributed through a personal computer or mobile device;
- extensive podcasts (cover a wide range of files from music to interviews, news and real conversations)
- educational podcasts (created for educational purposes involving listening or video materials with a range of exercises and tasks);
- authentic podcasts created by native speakers and especially teachers for



developing speaking skills.

Working with podcasts includes three stages:

1. Pre-listening or pretext. The teacher tells the students the rules for working with podcasts; indicates the topic, organizes topic discussion and gives keywords. At this stage, it is important to help with grammatical and lexical difficulties by familiarizing unfamiliar vocabulary and grammatical structures.

2. Listening or text. Students work with the podcast, doing the tasks that the teacher has set for them.

3. Post-listening or post-text. The students complete comprehensive tasks, for example, putting sentences in the correct order, matching terms with their definitions, filling in the gaps, etc. Also at this stage, the teacher organizes a discussion based on the audio material. As a follow-up project work, students can create their podcasts in the form of a monologue speech or an interview, then discuss them in the lesson, and evaluate them.

Many researchers identify such didactic properties of podcasting as accessibility, authenticity, interactivity, motivating potential, productivity, and multi-functionality. (Abdulrahman, 2018, p. 25). Accessibility means that students can listen to the podcast at any convenient time, both online and by downloading materials for further listening. Authenticity is possible since many audio and video files are created by native speakers and the students have an opportunity to get acquainted with many dialects. Relevance is related to the fact that podcasts are constantly updated, and students have an opportunity to subscribe and follow these updates. Interactivity means that anyone can easily search for podcasts on any topic and language level. Podcasting is motivating for young active Internet users and productive as the students can create their audio and video files freely available on the Internet, which makes them active participants in foreign language communication, remove the language barriers and gain self-confidence, and makes the learning process more interesting and productive. The multi-functionality of podcasts is expressed in the fact that they are aimed at developing not only such types of speech activities as listening and speaking, but also improving pronunciation, vocabulary, grammar and other language skills.

Experiments conducted on podcasts in language teaching indicate their beneficial effect on the development of auditory skills (Ratnam, 2019, p. 20). Podcasts contribute to the development of self-studying abilities, since the students can work with a podcast outside an educational institution, and the variety, accessibility and interactivity of topics motivate students to learn the language on their own.





There are a huge number of methods for developing students' listening skills in the process of teaching English.

One of the options for developing listening skills through the native language and culture is to use the Kahoot platform, a free and exciting service with numerous features and capabilities. The Kahoot Internet platform was created in Norway in 2013 and is currently very popular in various disciplines around the world. The service has an application and a website with a bright and interesting design and a simple interface for users with information on how to work with this service and its main features. The site has a range of articles and audio texts with subtleties on various topics (Kohnke, 2021).

On this platform, the teacher can create her tests, polls, and questionnaires and conduct them as a competitive game. The platform makes the learning process more interesting and attractive and helps to overcome the difficulties that arise during learning with the greatest success and ease. Kahoot can conduct a survey with instant results, which helps the teacher to identify the existing problems and organize quick feedback.

Another advantage of Kahoot is that the teacher can add audio or video file to testing, finding relevant materials in the target language. Tasks with different content can be created for listening skills development, e.g., in the form of test games and competitions.

The Kahoot platform proved to be an effective online resource that contributes to fast and easy listening skill development.

Among other computer-mediated educational resources, there are numerous online language courses. Their advantage is flexibility permitting them to change their content according to the listeners' needs. An important asset of online courses is control as the teacher can receive reports on the amount of time spent on a particular task and the results. Modern online courses contain animated elements, video clips and interactive tasks. Most online courses are based on specific educational and methodological backgrounds and have some such advantages as significant time savings; regularly updated learning materials; the possibility of using several resources simultaneously; access to newspapers, magazines and publications. The entire lesson cannot be devoted to working with such programs. However, the teacher can employ there as a part of the lesson and for home assignments only after analyzing the material posted on a particular site. For lesson preparation, a foreign language teacher must process a large number of Internet sources taking into account the requirements of



modern education.

## Conclusion

The conducted psycholinguistic analysis permitted substantiation of the types and forms of listening development and control. We studied two types of listening comprehension – the general meaning of the audio text and detailed meaning, which includes understanding the main content; the requested information; full or detailed understanding. These levels of comprehension do not represent a hierarchical list according to the understanding quality criterion but reflect the recipient's pragmatic goals in listening to content-factual information.

The object of control should be critical comprehension (understanding of content-conceptual and content-subtext information) comprising four components: logical-linguistic, cultural-historical, emotional-evaluative and interpretive. Critical understanding presupposes a large degree of freedom from the recipient, where the object of evaluation can only be the meaning of the text common to all recipients or a semantic invariant.

In recent years, practical studies caused changes in the approaches to listening in the study of a foreign language, as well as reconsidering the teaching of listening. Effective approaches to teaching listening should provide students with practical training in listening skills for general and professional listening purposes, depending on the student's needs and language level. The teacher should create the conditions for practical listening and motivate the students as if they need to receive information through listening to an interlocutor or having received it from alternative sources, this helps to focus on the received information and increases cognitive activities.

The motivation depends on the teacher and the material selected. Too complex or too easy material can demotivate learners. The relevance of topics also increases motivation. Internet resources with audio and especially video materials in teaching listening are gaining popularity. In the video, the students can follow the gestures and facial expressions of the speaker, which makes the process of listening easier and more interesting.

In this work, we described the main listening stages and suggest tasks for developing perception skills that can be applied to any audio text. The complex ability of speech reception includes listening as a part of a speaking activity and measures



comprehension through the communicative situation.

The main computer-assisted technologies in teaching listening and the application of the relevant multimedia programs make teaching listening at non-linguistic universities and can be used in a traditional or distance lesson as well as a source of supplementary assignments for independent studying.